

FINAL DRAFT



Houston, TX
2023 M/WBE Disparity Study

City of Houston, TX

Disparity Study

MAY 7, 2024

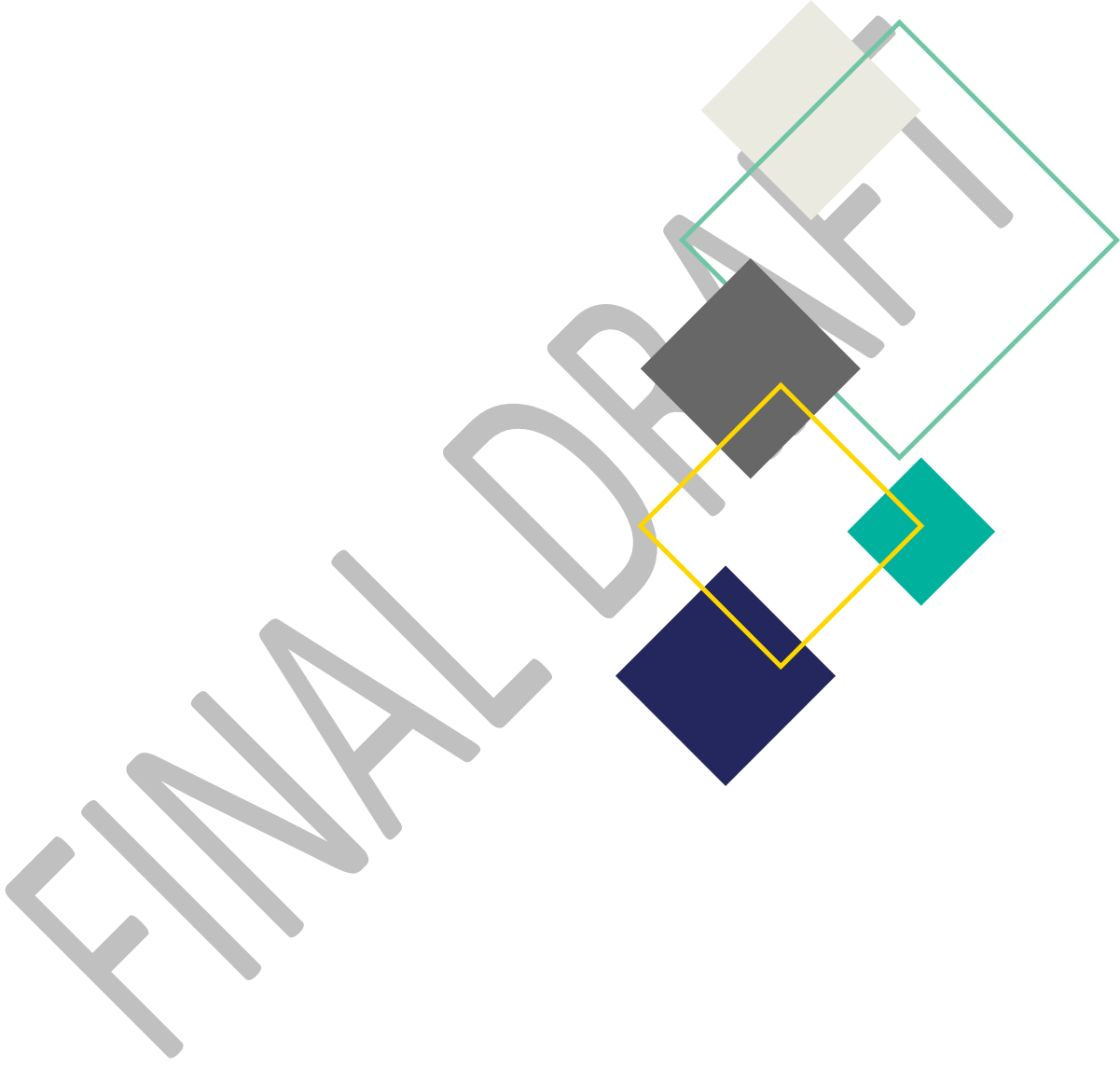


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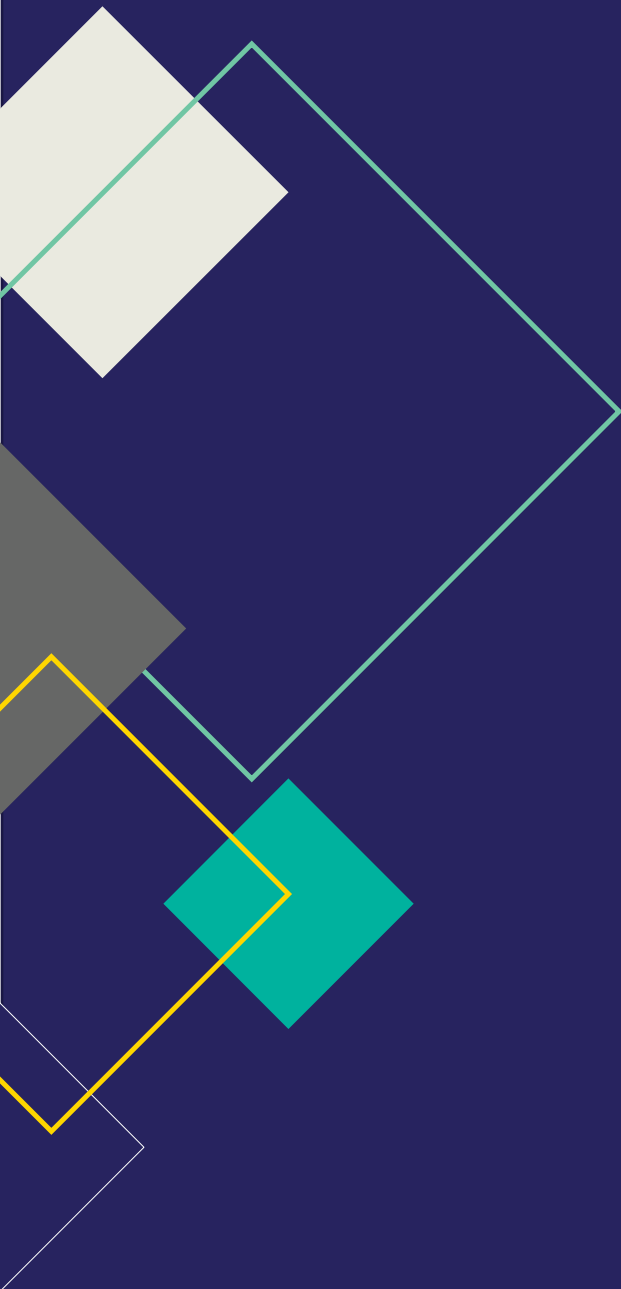
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MGT Consulting Project Team

MGT Consulting Group, LLC is a Tampa-based research and management consulting firm exclusively working in the public sector. Since 1990, MGT has conducted over 250+ disparity and disparity-related studies. The team of experts who dedicated their time, attention, and expertise to this Study includes some of the most experienced and accomplished social science experts in the field of disparity studies:

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Subconsultants

BWA Diversity Consulting (MBE) specializes in community engagement and qualitative research. BWA Diversity Consulting assisted MGT with quantitative data collection, qualitative (anecdotal) interviews with businesses and professional organizations in the marketplace, and the business engagement meetings.

Goodwille Pierre & Pierre Firm, PLLC (MBE) conducted research on case law that influenced the methodology. Goodwille Pierre also assisted MGT with quantitative data collection and qualitative (anecdotal) interviews with businesses in the marketplace.

SkyBase7 (WBE) is a public opinion polling and consumer research firm. SkyBase7 administered the custom census surveys to establish estimates of MWBE availability and the qualitative vendor survey of business owners.

Thompson Consulting & Analytics (MBE) conducted econometric research for the private market analysis.

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Glossary of Terms

This glossary contains definitions of common terms and acronyms used throughout the City's Disparity Study. Additional and more detailed definitions can be found in various chapters of the report.

ACDBE	An acronym for Airport Concession Disadvantaged Business Enterprise. An ACDBE is a business, located on an airport, that is engaged in the sale of consumer goods or services to the public under an agreement with the recipient, another concessionaire, or the owner or lessee of a terminal, if other than the recipient. Further, an ACDBE is a for-profit business which is at least 51% owned and controlled by one or more socially or economically disadvantaged individuals, whose personal net worth does not exceed the US Department of Transportation's current threshold.
Anecdotal	A personal account of experiences of businesses doing business with or attempting to do business with the City collected through surveys, interviews, and public hearings.
Aspirational Goal	A benchmark percentage of spending by an agency with a particular group over a period of time. The aspirational goal is typically an annual goal.
Anecdotal Database	A compiled list of utilized firms, registered vendors, and certification lists developed from several different sources, including Dun & Bradstreet. This list was used to develop the pool of available firms to participate in the anecdotal activities.
Awards	Awards reflect anticipated dollar amounts a prime contractor or vendor are scheduled to receive upon completion of a contract.
Combined Statistical Area	Combined Statistical Areas (CSA) are geographic entities defined by the U.S. Office of Management and Budget (OMB) for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics.
Contract	An agreement made between the City of Houston and the vendor to provide services and or goods with a defined scope of work, terms and conditions.
Custom Census	Custom census involves using Dun & Bradstreet as a source of business availability. A short survey is conducted on a random sample of firms supplied by Dun & Bradstreet requesting specific information, i.e., ethnic and gender status, and willingness to work on the City's projects.
DBE	An acronym for a Disadvantaged Business Enterprise. A DBE is a for-profit business which is at least 51% owned and controlled by one or more socially or economically disadvantaged individuals, whose personal net worth does not exceed the US Department of Transportation's current threshold.

Direct Payment	Payment made to prime contractors or vendors without the development of a contract.
Disparity Index/ Disparity Ratio	The ratio of the percentage of utilization and the percentage of availability for a particular demographic group times 100. Disparities were calculated for primes and subcontractors for each of the business categories.
Disparity Study	A study that reviews and analyzes the utilization and availability of disadvantaged, minority- and women-owned businesses in a particular market area to determine if disparity exists in the awarding of contracts to minority and women business enterprises by a public entity.
Expenditures	Expenditures are payments made by the City to primes and payments made by primes to subcontractors.
Good Faith Efforts	Documented evidence of the primes' efforts to meet established project goals to contract with M/WBE firms.
Intermediate Scrutiny	The second level of Federal judicial review to determine whether certain governmental policies are constitutional. Less demanding than "strict scrutiny."
Lowest Responsible, Responsive Bidder	An entity that provides the lowest price, has responded to the needs of the requestor, and has not violated statutory requirements for vendor eligibility.
M/WBE	An acronym for a minority- or woman-owned business enterprise. An MWBE is a business that is at least 51% owned and operated by one or more individuals who are African American, Asian American, Hispanic American, Native American or Nonminority Women.
Master Utilization Database	A database that maintains firms who have conducted business with the City and were paid by the City for goods & services.
MBE	An acronym for a minority-owned business enterprise. An MBE is a business that is at least 51% owned and operated by one or more individuals who are African American, Asian American, Hispanic American, or Native American.
Non-MWBE	An acronym for firms not identified as minority- or women-owned.
Passive Discrimination	The act of perpetuating discrimination by awarding contracts to firms that discriminate against minority- and women-owned firms.
Prima Facie	Evidence which is legally sufficient to establish a fact or a case, unless disproved or rebutted.
Prime	The contractor or vendor to whom a purchase order or contract is issued by the City.

Private Sector	The for-profit part of the national economy that is not under direct government control.
Procurement Category	The type of service or good provided under a contract awarded.
Project Goals	Goals placed on an individual project or contract, as opposed to aspirational goals placed on overall agency spending.
Public Sector	The non-profit part of the economy that is controlled by the government.
PUMS	An acronym for Public Use Microdata Sample. PUMS contains records for a sample of housing units with information on the characteristics of each unit and each person in it. PUMS files are available from the American Community Survey (ACS) and the Decennial Census.
Purchase Order	A commercial document and first official offer issued by a buyer to a seller, indicating types, quantities, and agreed prices for products or services.
Relevant Geographic Market	The geographical area where the firms that have been awarded the majority of the City contract dollars are located.
Sole Source	The contracting or purchasing of goods or services, without bidding, when performance or price competition for a product are not available; when a needed product is available from only one source of supply; or when standardization or compatibility is the overriding consideration.
Statistically Significant	The likelihood that a result or relationship is caused by something other than mere random chance. Statistical hypothesis testing is traditionally employed to determine if a result is statistically significant or not. This provides a "p-value" representing the probability that random chance could explain the result. In general, a 5% or lower p-value is considered to be statistically significant.
Strict Scrutiny	The highest level of Federal judicial review to determine whether certain governmental policies are constitutional. Applies to race-conscious programs.
Subcontractor	A vendor or contractor providing goods or services to a prime contractor or vendor under contract with the City.
Unclassified Firms	Identified as a firm that is not identified or certified as a MWBE, DBE, or ACDBE or could not be determined as such.
Utilization	Examines the expenditures and awards made to primes and subcontractors in the City's geographic market area for each procurement category. The utilization data are presented as the dollars spent or awarded and the percentage of the total dollars by racial, ethnic, and gender classification.
WBE	An acronym for a women-owned business enterprise. A WBE is a business that is at least 51% owned and operated by one or more nonminority women

1 Introduction

1.1 Introduction

The City of Houston, Texas (City) retained MGT of America Consulting (MGT) to conduct a Disparity Study (Study) to assess whether any barriers or discrimination exists in its contracting procedures or within the relevant geographic market. The Disparity Study also investigates other factors that may create challenges for minority- and women-owned businesses, potentially hindering their ability to effectively compete for City contracts and procurement opportunities. The City will use the information from the Study to refine its contracting policies and programs to better encourage the participation of those businesses in its contracts and procurements, and to understand whether the continued use of race- and gender-based measures might be appropriate in the future. The Study provides legally supportable evidence to guide the City on the continued use of its race- and gender-based programs.

The City of Houston's Office of Business Opportunity currently operates the Minority, Women, Small Business Enterprise (MWSBE) and Persons with Disabilities Business Enterprise (PDBE) Programs as required by City Code¹ to encourage the participation of MWSBEs and PDBEs in City contracting. In addition to MWSBE and PDBE, the Study will also examine if there are any disparities between the utilization of Disadvantaged Business Enterprises (DBE) and Airport Concession Disadvantaged Business Enterprises (ACDBE) compared to the availability of MWSBE/PDBE/DBE/ACDBE in the marketplace who are ready, willing, and able to perform work.

MGT examined the statistical data using the following business categories:

- ◆ Construction
- ◆ Professional Services
- ◆ Other Services
- ◆ Goods
- ◆ Airport Concessions

¹ City of Houston Code of Ordinances ("Code"), Chapter 15, Articles II, V, VI and XI, as amended.

1.2 Overview of Study Approach

The City's Study includes procurement activity from July 1, 2017 through June 30, 2022. The objectives of this Study were:

- ◆ Determine the utilization by the City of M/WBEs, SBEs, PDBEs, DBEs, and ACDBEs in contract and procurement activities.
- ◆ Determine if a disparity exists between the utilization of M/WBEs, SBEs, PDBEs, DBEs, ACDBEs, and veteran-owned businesses that are qualified and available to perform Construction, Professional Services, Other Services, and provide Goods and participate on Houston Airport System concession contracts in the City's Relevant Geographic Market Area (RGMA).
- ◆ If disparity as described above does exist, determine whether the effects of any past discrimination against M/WBEs, SBEs, PDBEs, DBEs, ACDBEs, and veteran-owned businesses in the City's procurement of Construction, Professional Services, Other Services, and Goods, and Houston Airport System concession services exist or continue to exist within the City's RGMA, as a result of direct action by the City, or as a result of the City's role as a passive participant in discriminatory behavior practiced by entities that do business with the City.
- ◆ If disparity does exist between the utilization of M/WBEs, SBEs, PDBEs, DBEs, and ACDBEs in the City's RGMA that results from any cause or causes, determine whether the use of only race- or gender-neutral and/or economically based measures would be effective to remedy such discrimination.
- ◆ If race- or gender-neutral and/or economically based measures alone would not be effective to remedy such discrimination, using rigorous and applicable statistical methods, determine the bases, and the mathematical or statistical formula(s) to be applied in formulating the City's goals for its remedial MWBE Program.

To meet the Study objectives, MGT's methodology answers the following research questions, which are embedded in the chapters denoted throughout this report:

1. Is there factual predicate evidence to support a race- and gender-conscious M/WBE program for the City? (Chapter 8)
2. How does case law inform the research methodology for the City's disparity study? (Chapter 2)
3. Are there disparities between the availability and utilization of M/WBE primes and subcontractors? (Chapter 5)
4. If so, what is the cause of the disparity? Is there other evidence that supports and/or explains why there is disparity? (Chapter 8)
5. Does the City passively engage in private sector discrimination? (Chapter 6)
6. Are there statistically significant disparities in the utilization of M/WBEs by primes on projects where there are no MWBE goals? (Chapter 6)
7. Is there qualitative/anecdotal evidence of disparate treatment of M/WBE subcontractors by prime contractors? (Chapter 7)

The Study analyzed contracting opportunities in the Construction, Professional Services, Other Services, Goods, and Airport Concessions procurement categories to identify with particularity whether a statistical disparity exists. A statistical disparity demonstrates whether the City is a passive participant in private sector discrimination and/or lingering effects of past discrimination exist that give rise to a compelling governmental interest for remedial measures, to include but not limited to the City's MWSBE/PDBE/DBE/ACDBE Programs and business development support.

The work plan consisted of, but was not limited to, the following major tasks:

- ◆ Establish data parameters and finalize the work plan.
- ◆ Conduct a legal review.
- ◆ Review the City's policies, procedures, and programs.
- ◆ Conduct public engagement meetings.
- ◆ Determine the City's geographic and product markets.
- ◆ Conduct market area and utilization analyses.
- ◆ Determine the availability of qualified firms.
- ◆ Analyze prime and subcontractor utilization and availability for disparity.
- ◆ Analyze disparities in the private sector.
- ◆ Conduct a survey of business owners.
- ◆ Collect and analyze anecdotal information.
- ◆ Prepare and present draft and final reports for the Study.

1.3 Report Organization

In addition to this introductory chapter, the City’s Disparity Study report consists of:

CHAPTER 2	LEGAL FRAMEWORK Chapter 2 presents the legal framework and an overview of the controlling legal precedents that impact remedial procurement programs with a particular concentration on the United States Court of Appeals for the Fifth Circuit.
CHAPTER 3	REVIEW OF POLICIES, PROCEDURES, AND PROGRAMS Chapter 3 provides MGT’s analysis of the City’s race- and gender-neutral, and race- and gender-conscious policies, procedures, and programs.
CHAPTER 4	MARKET AREA AND AVAILABILITY ANALYSES Chapter 4 presents the methodology used to determine the City’s relevant geographic market area and the analysis of availability estimates within the relevant geographic market area.
CHAPTER 5	PRODUCT MARKET, UTILIZATION, AND DISPARITY ANALYSES Chapter 5 presents the product market and analyses of vendor utilization by the City for the procurement of Construction, Professional Services, Other Services, Goods, and Airport Concessions and the disparity between the availability and utilization of M/WBEs, DBEs, and ACDBEs by the City.
CHAPTER 6	PRIVATE SECTOR ANALYSIS Chapter 6 provides an analysis of the disparities present in the private sector and the effect on MWBEs. This private sector analysis demonstrates why remedial measures are necessary to ensure the City does not become a passive participant in private sector discrimination.
CHAPTER 7	QUALITATIVE ANALYSIS Chapter 7 contains an analysis of qualitative data collected from the survey of business owners, one-on-one interviews, focus groups, and business engagement meetings.
CHAPTER 8	FINDINGS, COMMENDATIONS, AND RECOMMENDATIONS Chapter 8 summarizes the findings, commendations, and recommendations based upon the analyses presented in this Study.
APPENDICES	The appendices contain additional analyses, supporting documentation, and data.

MGT recommends reading the Disparity Study in its entirety to understand the basis for the findings and conclusions presented in **Chapter 8, Findings, Commendations, and Recommendations**.

2 Legal Review

2.1 Introduction

This chapter provides a legal background for the Disparity Study and a context for the statistical analysis and anecdotal data that are its components. The material that follows does not constitute legal advice to the City of Houston (City) on minority- and women-owned business enterprise (M/WBE), affirmative action programs, or any other matter. Instead, it provides a context for the statistical and anecdotal analysis that appears in subsequent chapters of this report. It is the customary MGT chapter for the Fifth Circuit and the state of Texas on this subject-matter, reviewed for recent cases at the time of publishing this chapter.

The Supreme Court decisions in *Richmond v. J. A. Croson Co. (Croson)*,² and *Adarand v. Peña (Adarand III)*³ established and applied the legal framework that governs race- and gender-conscious procurement programs. These cases held that strict scrutiny should be the standard by which race-conscious governmental programs should be reviewed, including programs of federal, state, and local governments. In particular, the courts held that to survive a constitutional challenge under a strict scrutiny standard, a race-conscious governmental procurement program must be (1) justified by a compelling governmental interest in remedying identified discrimination in the marketplace; and (2) narrowly tailored to remedy that discrimination.

While gender conscious programs are subject to intermediate scrutiny in practice, there has not been a significant difference in the judicial review of race-conscious versus gender-conscious contracting programs. In *Kossmann Contracting v. City of Houston* though, the court determined that if the M/WBE program survived strict scrutiny, the WBE program did not need to be evaluated under intermediate scrutiny⁴. As such, the evidence provided throughout this report would meet strict scrutiny for both MBEs and WBEs.

Decisions of the Fifth Circuit offer the most directly binding authority to the City. Other circuit court cases outside of the Fifth Circuit offer persuasive authority where the Fifth Circuit does not directly address all aspects of a legally defensible M/WBE program. This review also addresses the most pertinent cases outside of the Fifth Circuit.

² *Richmond v. J. A. Croson Co.*, 488 U.S. 469 (1989). It should be noted that as it relates to this analysis, *Croson* refers to the Court's opinion delivered by Justice O'Connor in Parts I, III-B, and IV. Parts II, III-A, and V were plurality opinions delivered by Justice O'Connor.

³ *Adarand Constructors v. Peña*, 515 U.S. 200 (1995).

⁴ *Kossmann Contracting v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at 48 n.152 (S.D. Tex. Feb. 16, 2016).

2.2 Scrutiny Standards for Race- and Gender-Specific Programs

Strict Scrutiny - *Richmond v. J. A. Croson Co.* as Applied to State and Local Governments

Justice O'Connor in *Croson* established the framework for testing the validity of race-based programs in state and local governments. In 1983, the Richmond City Council (Council) adopted a Minority Business Utilization Plan (the Plan). In adopting the Plan, the Council relied on information that showed that there was, "no direct evidence of race discrimination on the part of the city" in its contracting activities and no "evidence that the city's prime contractors had discriminated against minority-owned subcontractors."⁵

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

J.A. Croson Company, a non-MBE mechanical plumbing and heating contractor, filed a lawsuit against the city of Richmond, alleging that the Plan was unconstitutional because it violated the Equal Protection Clause of the Fourteenth Amendment of the United States Constitution. After a considerable record of litigation and appeals, the Fourth Circuit Court of Appeals struck down the Richmond Plan, and the Supreme Court affirmed this decision.⁶ The Supreme Court determined that strict scrutiny was the appropriate standard of judicial review for MBE programs, which means that a race-conscious program must be based on a compelling governmental interest and be narrowly tailored to achieve its objectives. This standard requires a firm evidentiary basis for concluding that the underutilization of minorities is a product of past discrimination.⁷

Intermediate Scrutiny

The Supreme Court has not addressed the specific issue of a gender-based classification in the context of a woman-owned business enterprise (WBE) program. *Croson* was limited to the review of an MBE program. In evaluating gender-based classifications, the Court has used what some call "intermediate scrutiny," a less stringent standard of review than the "strict scrutiny" applied to race-based classifications. Intermediate scrutiny requires that classifying persons based on sex "must carry the burden of showing an exceedingly persuasive justification for the classification."⁸

In the intermediate level of scrutiny, some degree of discrimination must be demonstrated in a particular industry before a gender-specific remedy may be instituted in that industry. In *Coral Construction*

⁵ *Croson*, 488 U.S. at 480.

⁶ *Id.* at 511.

⁷ *Id.* at 488.

⁸ *Miss. Univ. for Women v. Hogan*, 458 U.S. 718, 724 (1982). See also *Kirchberg v. Feenstra*, 450 U.S. 455, 461 (1981); *Pers. Adm'r of Mass. v. Feeney*, 442 U.S. 256, 273 (1979).

Company v. King County 941 F.2d 910 (9th Cir. 1991), *cert. denied*, 502 U.S. 1033 (1992),⁹ the Ninth Circuit Court of Appeals noted that, “The mere recitation of a benign, compensatory purpose will not automatically shield a gender-specific program from constitutional scrutiny.”¹⁰

Although the United States Supreme Court has not ruled directly on the type of scrutiny it would use for a women-owned business enterprise (WBE) program, the lower federal courts have applied the “intermediate” scrutiny level of review rather than the strict scrutiny applicable to race-conscious programs.¹¹ However, the Ninth Circuit has ruled that a gender-based remedial program is subject to intermediate scrutiny “supported by an ‘exceedingly persuasive justification’ and substantially related to the achievement of that underlying objective.”¹² In *Engineering Contractors Assoc. of South Florida v. Metropolitan Dade County*, the Eleventh Circuit Court of Appeals recognized that the U.S. Supreme Court’s decision in *United States v. Virginia*, 518 U.S. 515 (1996) may have “signaled” a heightened level of scrutiny by stating that a governmental agency must demonstrate an “exceedingly persuasive justification” for that action. However, the court concluded that, unless and until the United States Supreme Court indicated otherwise, intermediate scrutiny remains the applicable constitutional standard in gender discrimination cases, and a gender-conscious program may be upheld as long as it is substantially related to an important governmental objective.¹³

2.2.1 Strict Scrutiny Analysis

The Supreme Court determined that strict scrutiny was the appropriate standard of judicial review for MBE programs, which means that a race-conscious program must be based on a compelling governmental interest and be narrowly tailored to achieve its objectives. This standard requires a firm evidentiary basis for concluding that the underutilization of minorities is a product of past discrimination. Although Justice O’Connor in *Croson* did not specifically define the methodology used to establish the evidentiary basis required by strict scrutiny, the Court outlined governing principles. Lower courts have expanded the Supreme Court’s *Croson* guidelines and have applied or distinguished these principles when asked to decide the constitutionality of state, county, and city programs to enhance opportunities for minorities and women.

2.2.1.1 Compelling Governmental Interest

Croson identified two necessary factors for establishing racial discrimination sufficiently to demonstrate a compelling governmental interest in establishing an MBE program. First, there needs to be identified discrimination in the relevant market.¹⁴ Second, “the governmental actor enacting the set-aside program

⁹ 961 F.2d 910 (9th Cir. 1991), *cert. denied*, 502 U.S. 1033 (1992).

¹⁰ *Coral Construction v. King County*, 941 F.2d at 932.

¹¹ See, e.g., *Concrete Works II*, 321 F.3d 950 (10th Cir. 2003); *Coral Construction Co. v. King County*, 941 F.2d 910 (9th Cir. 1991); *Philadelphia*, 91 F.3d 586 (3d Cir. 1996); *Engineering Contractors Association of South Florida, Inc., et. al. v. Metropolitan Dade County, et. al.*, (“*Engineering Contractors*”), 122 F.3d 895 (11th Cir. 1997).

¹² *AGC v. California*, 713 F.3d 1187, 1195 (9th Cir. 2013). *United States v. Virginia Military Institute*, 518 U.S. 515 (1996); *Mississippi University for Women v. Hogan*, 458 U.S. 718 (1982); *Michigan Road Builders Ass’n., Inc. v. Milliken*, 834 F.2d 583, 595 (6th Cir. 1987); *Associated General Contractors of California v. City and County of San Francisco*, 813 F.2d 922, 940 (9th Cir. 1987).

¹³ *Engineering Contractors*, 122 F.3d at 908 (11th Cir. 1997).

¹⁴ *Croson*, 488 U.S. at 492, 509-10.

must have somehow perpetuated the discrimination to be remedied by the program,”¹⁵ either actively or at least passively with “the infusion of tax dollars into a discriminatory industry.”¹⁶

2.2.1.1.1 Statistical Evidence

The Court in *Croson* indicated that the proper statistical evaluation would compare the percentage of qualified MBEs in the relevant market with the percentage of total municipal construction dollars awarded to them.¹⁷ In *Croson*, Justice O’Connor recognized statistical measures of disparity that compared the number of qualified and available MBEs with the rate of state construction dollars actually awarded to M/WBEs to demonstrate discrimination in the local construction industry.¹⁸ To meet this more precise requirement, courts, including in the Fifth circuit, have accepted the use of a disparity index^{19, 20}

2.2.1.1.1.1 Availability

An accurate determination of availability permits the government to meet the requirement that it “determine the precise scope of the injury it seeks to remedy” by its program.²¹ Following *Croson’s* guidance on availability, lower courts have considered how legislative bodies may determine the scope of the injury sought to be remedied by an MBE program. As such, courts have rejected studies where the methods used to measure availability were considered insufficient. For instance, in *W.H. Scott Construction Co.*, the Fifth Circuit rejected a study that “was restricted to the letting of prime contracts by the City [City of Jackson, MS] under the City’s Program; [and which] did not include an analysis of the availability and utilization of qualified minority subcontractors, the relevant statistical pool, in the City’s construction projects.”²²

In particular, MBEs are deemed to be “available” if they are ready, willing, and able²³ to perform. In determining availability of MBEs, the approach utilized to assess the universe of available firms should neither be overinclusive or underinclusive. The “Custom Census” approach for identifying the pool of available firms has been favorably approved by several courts. In *Northern Contracting*, the plaintiff attempted to argue that the Illinois Department of Transportation (IDOT) miscalculated the number of DBEs by using a custom census instead of a count of the number of DBEs registered and prequalified by IDOT. The Seventh Circuit upheld the broader custom census count of DBEs, concluding that it reflected an attempt by IDOT to arrive at more accurate numbers than what would be possible through a use of the registered vendors list.²⁴

For similar reasons, the Southern District of Texas in *Kossmann*, opined that the “Custom Census’ approach for determining availability was a more favorable approach than the bidder database approach. The Court concluded “that bidder data may produce availability statistics that are skewed by active and passive

¹⁵ *Coral Const. Co. v. King County*, 941 F.2d 910, 916 (9th Cir. 1991).

¹⁶ *Id.* at 922.

¹⁷ *Croson*, 488 U.S. at 501-02.

¹⁸ *Id.* at 503-04.

¹⁹ The disparity index is the ratio of the percentage of utilization and the percentage of availability for a particular demographic group times 100.

²⁰ *W H Scott Constr. Co. v. City of Jackson*, 199 F.3d 206, 218 (5th Cir. 1999) and *Kossmann Contracting v. City of Houston.*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at *50-51 (S.D. Tex. Feb. 16, 2016).

²¹ *Id.* at 498.

²² *W H Scott Constr. Co. v. City of Jackson*, 199 F.3d 206, 218 (5th Cir. 1999).

²³ *Richmond v. J. A. Croson Co.*, 488 U.S. 469, 509 (1989).

²⁴ *N. Contracting, Inc. v. Illinois*, 473 F.3d 715, 723 (7th Cir. 2007).

discrimination in the market...[and that] In addition to being underinclusive due to discrimination, it may be overinclusive due to inaccurate self-evaluation by firms offering bids despite the inability to fulfill the contract"²⁵.

2.2.1.1.1.2 Relevant Market Area

Another issue in availability analysis is the definition of the relevant market area. Specifically, the question is whether the relevant market area should be defined as the area from which a specific percentage of purchases are made, the area in which a specific percentage of qualified, willing, and able contractors may be located, or the area determined by a fixed geopolitical boundary. In *Croson* for example, one of the constitutional shortcomings that the court identified in the Richmond program was the city's use of the proportion of minorities in the local population to establish the 30 percent quota.²⁶ The court explained that this numerical goal "rest[ed] upon the completely unrealistic assumption that minorities will choose a particular trade in lockstep proportion to their representation in the local population."²⁷ The Ninth Circuit Court of Appeals clarified in *Coral Construction* that a DBE (or MBE) program must limit its geographical scope to the boundaries of the enacting jurisdiction.²⁸

The Supreme Court has not specifically established how the relevant market area should be defined, but some circuit courts have done so. In the Southern District of Texas case of *Kossman*, the court noted that "since *Croson* was decided, disparity studies that compare the availability of MWBEs in the relevant market with their utilization in local public contracting have been widely recognized as strong evidence. The [disparity study cited] defined the market area by reviewing past contract information. By looking at information from Defendant's own contracts, the [disparity study cited] properly defined the relevant market according to two critical factors, geography and industry"²⁹.

In *Concrete Works II*, a non-M/WBE construction company argued that, under *Croson*, Denver's affirmative action program could only rely on data from within the City and County of Denver—not from the larger six-county Denver Metropolitan Statistical Area (MSA)³⁰. The Tenth Circuit disagreed, holding "[t]he relevant area in which to measure discrimination, then, is the local construction market, but that is not necessarily confined by jurisdictional boundaries."³¹ The court further stated that "[i]t is important that the pertinent data closely relate to the jurisdictional area of the municipality whose program we scrutinize, but here Denver's contracting activity, insofar as construction work is concerned, is closely related to the Denver MSA."³² Because more than 80 percent of Denver Department of Public Works construction and design contracts were awarded to firms located within the Denver MSA, the Tenth Circuit held that the appropriate market area was the Denver MSA, not the City and County of Denver alone.³³ Accordingly, data from the Denver MSA was "adequately particularized for strict scrutiny purposes."³⁴

²⁵ *Kossman Contracting v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at *60 (S.D. Tex. Feb. 16, 2016).

²⁶ *Croson*, 488 U.S. at 729-730.

²⁷ *Western States Paving*, 407 F.3d at 995.

²⁸ *Coral Construction*, 941 F.2d at 925.

²⁹ *Kossman Contracting v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at *58-59 (S.D. Tex. Feb. 16, 2016)

³⁰ *Concrete Works of Colorado, Inc. v. City and Cnty. of Denver*, 36 F.3d 1513, 1520 (10th Cir. 1994).

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

2.2.1.1.1.3 Ability

Another availability consideration is whether the firms being considered are able to perform a particular service. Those who challenge affirmative action often question whether M/WBE firms have the “capacity” to perform specific services. In *H.B. Rowe, Inc. v. Tippett*, from the Fourth Circuit, the court noted that capacity does not have the same force for relatively small subcontracts. In addition, the study for the North Carolina Department of Transportation (NCDOT) contained a regression analysis indicating that “African American ownership had a significant negative impact on firm revenue unrelated to firm capacity or experience.”³⁵

In *Concrete Works IV* the court noted that “MWBE construction firms are generally smaller and less experienced because of discrimination....Additionally, we do not read *Croson* to require disparity studies that measure whether construction firms are able to perform a particular contract.”³⁶

2.2.1.1.1.4 Disparity Index

In the *Rowe* decision, the plaintiff noted that there was no substantial disparity when the percentage of subcontractors was used compared to their availability. However, the Fourth Circuit stated that “[t]he State pointed to evidence that prime contractors used minority businesses for low-value work in order to comply with the Department’s goals.”³⁷ Along these lines, the Fourth Circuit noted that the average subcontract awarded to nonminority male subcontractors was more than double the size of subcontracts won by MBE subcontractors.³⁸

The Southern District of Texas considered what evidence would suffice to show discrimination in the relevant market in *Kossmann Contracting v. City of Houston*.³⁹ The court noted that “other courts considering equal protection challenges to minority-participation programs have looked to disparity indices, or to computation of disparity percentages, in determining whether *Croson*’s evidentiary burden is satisfied.”⁴⁰ At the same time, the District Court stated that it was not attempting to “craft a precise mathematical formula to assess the quantum of evidence that rises to the *Croson* ‘strong basis in evidence’ benchmark.”⁴¹

2.2.1.1.1.5 Statistical Significance in Disparity Studies

While courts have indicated that anecdotal evidence may suffice without statistical evidence, no case without statistical evidence has been given serious consideration by any circuit court. In practical effect, courts require statistical evidence. Further, the statistical evidence needs to be held to appropriate professional standards.⁴² In *Rowe*, the court noted that the NCDOT study focused on disparity ratios lower than 80 percent and conducted t-tests of statistical significance.⁴³

The Eleventh Circuit has addressed the role of statistical significance in assessing levels of disparity in public contracting. Generally, disparity indices of 80 percent or higher—indicating close to full

³⁵ *H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233, 247 (4th Cir. 2010).

³⁶ *Concrete Works IV*, 321 F.3d 950, 981, 983 (10th Cir. 2003).

³⁷ *H.B. Rowe, Inc. v. Tippett*, 615 F.3d at 243-244.

³⁸ *Id.* at 245.

³⁹ *Kossmann Contracting v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at *50-51 (S.D. Tex. Feb. 16, 2016).

⁴⁰ *Id.* at 218.

⁴¹ *Id.* at 218 n.11.

⁴² *Contractors Ass’n v. City of Philadelphia*, 91 F.3d 586, 603 (3d Cir. 1996).

⁴³ *H.B. Rowe, Inc. v. Tippett*, 615 F.3d at 245.

participation—are not considered significant.⁴⁴ The court referenced the Equal Employment Opportunity Commission’s disparate impact guidelines, which establish the 80 percent test as the threshold for determining a *prima facie* case of discrimination.⁴⁵ According to the Eleventh Circuit, no circuit that has explicitly endorsed using disparity indices has held that an index of 80 percent or greater is probative of discrimination, but they have held that indices below 80 percent indicate “significant disparities.”⁴⁶

In support of the use of standard deviation analyses to test the statistical significance of disparity indices, the Eleventh Circuit observed that “[s]ocial scientists consider a finding of two standard deviations significant, meaning there is about one chance in 20 that the explanation for the deviation could be random and the deviation must be accounted for by some factor other than chance.”⁴⁷ With standard deviation analyses, the reviewer can determine whether the disparities are substantial or statistically significant, lending further statistical support to a finding of discrimination. On the other hand, if such analyses can account for the apparent disparity, the study will have little if any weight as evidence of discrimination.

Further, the interpretations of the studies must not assume discrimination has caused the disparities, but must account for alternative explanations of the statistical patterns.⁴⁸ The Third and Fifth Circuits have also indicated that statistics about prime contracting disparity have little, if any, weight when the eventual M/WBE program offers its remedies solely to subcontractors.⁴⁹ In *Engineering Contractors* there was a separate analysis of prime contracting and subcontracting.⁵⁰

2.2.1.1.2 Staleness of Data and Time Period of Study

A few cases have addressed the issue of the quantity and currentness of the data required to satisfy strict scrutiny. There is no clear guidance from the district courts about how many years should be studied, although there is cautionary language in cases about relying on small data samples.⁵¹ Concerning the age of data, the court in *Rothe* ruled that the data relied on in the disparity studies was not stale with regard to reenacting a federal program in 2006. While agencies should rely on the most current available data, other circuit courts have “relied on studies containing data more than five years old when conducting compelling interest analyses.”⁵²

2.2.1.1.3 Passive Participation to Discrimination

In *Croson*, Justice O’Connor stated, “It is beyond dispute that any public entity, state or federal, has a compelling interest in assuring that *public* dollars, drawn from the tax contributions of all citizens, do not

⁴⁴ *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d at 914.

⁴⁵ *Id.* at 914, citing 29 C.F.R. § 1607.4D (concerning the disparate impact guidelines and threshold used in employment cases).

⁴⁶ *Id.* at 914, citing *Contrs. Ass’n of E. Pennsylvania, Inc.*, 6 F.3d at 1005 (crediting disparity index of 4 percent) and *Concrete Works II*, 36 F.3d at 1524 (crediting disparity indices ranging from 0 percent to 3.8 percent).

⁴⁷ *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d at 914 quoting *Peightal v. Metropolitan Dade County*, 26 F.3d 1545, 1556 n.16 (11th Cir. 1994) (quoting *Waisome v. Port Authority*, 948 F.2d 1370, 1376 (2nd Cir. 1991)).

⁴⁸ *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d at 922.

⁴⁹ *Contrs. Ass’n of E. Pennsylvania, Inc.*, 91 F.3d at 599 (3rd Cir.); *W.H. Schott Constr. Co.*, 199 F.3d at 218 (5th Cir.)

⁵⁰ *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d 895, 920.

⁵¹ *See, e.g., Associated Gen. Contrs. of Am. v. City of Columbus*, 936 F.Supp. 1363, 1393 (S.D. Ohio 1996) (*rev’d on other grounds*, 172 F.3d 411).

⁵² *Rothe Dev. Corp. v. DOD*, 545 F.3d 1023, 1038 (Fed. Cir. 2008) (citing district court discussion of staleness in *W. States Paving Co. v. Wash. State DOT*, 407 F.3d 983 (9th Cir. 2005) and *Sherbrooke Turf, Inc. v. Minn. DOT*, 345 F.3d 964 (8th Cir. 2003)).

serve to finance the evil of *private* prejudice.”⁵³ *Croson* provided that the government “can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment.”⁵⁴ The government agency’s active or passive participation in discriminatory practices in the marketplace may show a compelling interest. Defining passive participation, *Croson* stated, “Thus, if the city could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.”⁵⁵

Relying on this language in *Croson*, several local agencies have increased their emphasis on evidence of discrimination in the private sector. In *Concrete Works IV*, the Tenth Circuit upheld the relevance of data from the private marketplace to establish a factual predicate for M/WBE programs.⁵⁶ The courts mainly seek to ensure that M/WBE programs are based on active or passive discrimination findings in the government contracting marketplace and not simply attempts to remedy general societal discrimination⁵⁷.

Courts also seek to find a causal connection between a statistical disparity and actual underlying discrimination. In *Engineering Contractors*, one component of the factual predicate was a study comparing entry rates into the construction business for M/WBEs and non-M/WBEs.⁵⁸ The analysis provided statistically significant evidence that minorities and women entered the construction business at rates lower than expected, given their numerical presence in the population and human and financial capital variables. The study argued that those disparities persisting after applying appropriate statistical controls were most likely the result of current and past discrimination. Even so, the Eleventh Circuit criticized this study for reliance on general census data and the lack of particularized evidence of active or passive discrimination by Miami-Dade County, holding that the district court was entitled to find that the evidence did not show compelling justification for an M/WBE program.⁵⁹

The Seventh Circuit has perhaps set a higher bar for connecting private discrimination with government action. In the Cook County case, the trial court extensively considered evidence that prime contractors did not solicit M/WBEs as subcontractors and considered carefully whether this evidence on solicitation served as sufficient evidence of discrimination, or whether instead, it was necessary to provide further evidence that there was discrimination in hiring M/WBE subcontractors.⁶⁰ The Seventh Circuit held that this evidence was largely irrelevant.⁶¹ Beyond being anecdotal and partial, evidence that contractors failed to solicit M/WBEs on Cook County contracts was not the same as evidence that M/WBEs were denied the opportunity to bid.⁶² Furthermore, such activities on the part of contractors did not necessarily implicate the County as being a passive participant in such discrimination as might exist because there was no evidence the County knew about it.⁶³

⁵³ *Coral Cons Co.*, 941 F.2d at 922 (citing *Croson*, 488 U.S. at 492) (emphasis added).

⁵⁴ *Croson*, 488 U.S. at 492; see generally Ian Ayres and Fredrick E. Vars, *When Does Private Discrimination Justify Public Affirmative Action?* 98 *Colum. L. Rev.* 1577 (1998).

⁵⁵ *Croson*, 488 U.S. at 492.

⁵⁶ *Concrete Works IV*, 321 F.3d at 969.

⁵⁷ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000).

⁵⁸ *Engineering Contrs. Ass’n v. Metropolitan Dade County*, 122 F.3d at 921-22.

⁵⁹ *Id.* at 922.

⁶⁰ *Builders Ass’n of Greater Chicago v. County of Cook*, 123 F. Supp. 2d 1087 (N.D. Ill. 2000).

⁶¹ *Builders Ass’n of Greater Chicago v. County of Cook*, 256 F.3d 642, 645 (7th Cir. 2001).

⁶² *Id.*

⁶³ *Id.*

2.2.1.1.4 Anecdotal Evidence

Justice O'Connor in *Croson* discussed the relevance of anecdotal evidence, stating: “[E]vidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government’s determination that broader remedial relief is justified.”⁶⁴

There was evidence from a telephone survey, interviews, and focus groups in *Rowe*. The Fourth Circuit favorably cited survey evidence of a good old boys’ network excluding MBEs from work, double standards in qualifications, primes viewing MBEs as less qualified, dropping MBEs after contract award, and the firms changing their behavior when not required to use MBEs. This material was affirmed in interviews and focus groups. The Fourth Circuit also concluded that “[t]he surveys in the 2004 study exposed an informal, racially exclusive network that systematically disadvantaged minority subcontractors.”⁶⁵

The plaintiff argued that this data was not verified, to which the Fourth Circuit responded, “a fact finder could very well conclude that anecdotal evidence need not—and indeed cannot—be confirmed because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perceptions.”⁶⁶ The Fourth Circuit also commented favorably on the NCDOT study survey oversampling MBEs as long as the sample was random.

In *Associated General Contractors of California, Inc. v. Coalition for Economic Equity (AGCC II)*, the Ninth Circuit discussed the specificity of anecdotal evidence required by *Croson*.⁶⁷ Seeking a preliminary injunction, the contractors contended that the evidence presented by San Francisco lacked the specificity needed for an earlier appeal in that case and by *Croson*.⁶⁸ The court held that the City’s findings were based on substantially more evidence than the anecdotes in the two prior cases and were “clearly based upon dozens of specific instances of discrimination that are laid out with particularity in the record, as well as significant statistical disparities in the award of contracts.”⁶⁹

The court also ruled that the City was under no burden to identify every instance of discriminatory practices or policies.⁷⁰ Reiterating the City’s perspective, the court stated that the City “must simply demonstrate the existence of past discrimination with specificity; there is no requirement that the legislative findings specifically detail each instance that the legislative body ha[d] relied upon in support of its decision that affirmative action is necessary.”⁷¹ Not only have courts found that a municipality does not have to identify all the discriminatory practices impeding M/WBE utilization specifically, but the Tenth Circuit in *Concrete Works IV* also held that anecdotal evidence collected by a municipality does not have to be verified. “There is no merit to [the plaintiff’s] argument that the witnesses’ accounts must be verified to provide support for Denver’s burden. Anecdotal evidence is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perceptions....Denver was not required to present corroborating evidence and [the plaintiff] was free to present its own witnesses to

⁶⁴ *Croson*, 488 U.S. at 509; *Kossmann Contr. v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708 (S.D. Tex. Feb. 16, 2016), adopted by *Kossmann Contr. Co. v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 36758 (S.D. Tex. Mar. 22, 2016).

⁶⁵ *H.B. Rowe*, 615 F.3d at 251.

⁶⁶ *Id.* at 249 (quoting *Concrete Works*, 321 F.3d at 989).

⁶⁷ *AGCC II*, 950 F.2d 1401, 1414-15 (9th Cir. 1991).

⁶⁸ *Id.* at 1415-1416.

⁶⁹ *Id.* at 1416. This evidence came from 10 public hearings and “numerous written submissions from the public.” *Id.* at 1414.

⁷⁰ *Id.* at 1416 n.11.

⁷¹ *Id.* at 1416.

either refute the incidents described by Denver's witnesses or to relate their own perceptions on discrimination in the Denver construction industry."⁷²

2.2.2 Narrowly Tailoring

Many courts have held that even if a compelling interest for the M/WBE program can be found, the program can still be found not to be narrowly tailored.⁷³ The Fifth Circuit relies on the factors enunciated in *United States v. Paradise*⁷⁴. These factors are:

- (1) "the necessity of the particular relief and the efficacy of alternative remedies;" (2) "the flexibility and duration of the relief, including the availability of waiver provisions;" (3) "the relationship between the numerical goal of the relief and the relevant labor market;" and (4) "the impact of the relief on the rights of third parties."⁷⁵

The Ninth Circuit in *Western States Paving Co. v. Washington State DOT*⁷⁶ agreed with the *Sherbrooke* and *Gross Seed* cases that it is necessary to undertake an as applied inquiry into whether a government's DBE program is narrowly tailored. The *Western States Paving* court stated that even when discrimination is present within a state, a remedial program is only narrowly tailored if its application is limited to those minority groups that have actually suffered discrimination. In *Croson*, for example, one of the rationales upon which the Supreme Court relied to invalidate the city's quota system was the program's expansive definition of "[m]inority group members," which encompassed "[c]itizens of the United States who are Blacks, Spanish-speaking, Orientals, Indians, Eskimos, and Aleuts."⁷⁷ The Court admonished that the random inclusion of racial groups that, as a practical matter, may never have suffered from discrimination in the construction industry in Richmond suggested that perhaps the city's purpose was not in fact to remedy past discrimination.

The Ninth Circuit Court of Appeals noted that it had previously expressed similar concerns about the haphazard inclusion of minority groups in affirmative action programs ostensibly designed to remedy the effects of discrimination. In *Monterey Mechanical Co. v. Wilson*, 125 F.3d at 704, the Ninth Circuit relied upon *Croson* to invalidate a California statute that required prime contractors on public projects to subcontract 15 percent of the work to minority-owned businesses and 5 percent to woman-owned businesses. The statute defined the term "minority" to include Blacks, Hispanics, Native Americans, Pacific-Asians, Asian-Indians, and over two-dozen subgroups.⁷⁸ The court concluded that the statute was not narrowly tailored because it provided race-based preferences to "groups highly unlikely to have been discriminated against in the California construction industry."⁷⁹ The overly inclusive designation of benefited minority groups was a "red flag signaling that the statute is not, as the Equal Protection Clause requires, narrowly tailored."⁸⁰ The court also cited *Builders Ass'n of Greater Chicago v. County of Cook*,

⁷² *Concrete Works IV*, 321 F.3d 950, 989 (10th Cir. 2003).

⁷³ *Contractors Ass'n v. City of Philadelphia*, 91 F.3d at 605; *Engineering Contrs.*, 122 F.3d at 926-29; *Virdi v. Dekalb County Sch. Dist.*, 135 F. App'x 262 (11th Cir. 2005).

⁷⁴ *Dean v. City of Shreveport*, 438 F.3d 448 citing *United States v. Paradise*, 480 U.S. 149.

⁷⁵ *United States v. Paradise*, 480 U.S. 149 at 171.

⁷⁶ *W. States Paving Co. v. Wash. State DOT*, 407 F.3d 983 (9th Cir. 2005)

⁷⁷ 488 U.S. at 478, 109 S.Ct. 706 (second alteration in original).

⁷⁸ *Id.* at 714, 109 S.Ct. 706.

⁷⁹ *Id.*

⁸⁰ *Id.*

256 F.3d 642, 647 (7th Cir.2001), holding that an ordinance that established minimum levels of minority participation in county construction contracts was not narrowly tailored because it afforded preferences to a “laundry list” of minorities, not all of whom had suffered discrimination; *Associated Gen. Contractors of Ohio, Inc. v. Drabik*, 214 F.3d 730, 737 (6th Cir. 2000), invalidating a state statute that set aside 5 percent of state construction contracts for “Blacks, American Indians, Hispanics, and Orientals” because “[b]y lumping together [these] groups, ... the [program] may well provide preference where there has been no discrimination, and may not provide relief to groups where discrimination might have been proven;” *O’Donnell Constr. Co. v. District of Columbia*, 963 F.2d 420, 427 (D.C.Cir.1992) “the random inclusion of racial groups for which there is no evidence of past discrimination in the construction industry raises doubts about the remedial nature of [a minority set-aside] program” (internal quotation marks omitted). In contrast, the Caltrans DBE program litigated in *AGC v. Caltrans* had excluded Hispanic-owned firms from race-based preferences based on inadequate factual predicate evidence for the Hispanic ethnic category.⁸¹

Accordingly, each of the principal minority groups benefiting from the state’s DBE program must have suffered discrimination within the state. If that is not the case, then the DBE program provides minorities who have not encountered discriminatory barriers with an unconstitutional competitive advantage at the expense of both non-minorities and any minority groups that have actually been targeted for discrimination.

2.2.2.1 Race-Neutral Alternatives

Concerning race-neutral alternatives, Justice O’Connor in *Croscon* concluded that a governmental entity should also evaluate the use of race-neutral means to increase minority business participation in contracting or purchasing activities. In *Rowe*, the Fourth Circuit noted that NCDOT had a Small Business Enterprise program and had undertaken all the race-neutral methods suggested by the DOT DBE program regulations. The court pointed out that the plaintiff had identified “no viable race-neutral alternatives that North Carolina has *failed* to consider and adopt”⁸² (emphasis in the original). The Court further noted that disparities persisted despite NCDOT employing these race-neutral initiatives.

2.2.2.2 Duration of the Remedy

The Western States Paving Court noted that a narrowly tailored remedial program must also include adequate durational limitations. The Court noted that Transportation Equity Act for the 21st Century (TEA-21) comports with this requirement because it is subject to periodic reauthorization by Congress. The debates concerning reauthorization ensure that Congress regularly evaluates whether a compelling interest continues to justify TEA-21’s minority preference program. Other cases have noted that time limitations are required for DBE/MBE/WBE programs (states may terminate their programs if they meet their annual overall goal through race- neutral means for two consecutive years).⁸³

2.2.2.2.1 Relationship of Goals to Availability

Narrow tailoring under the *Croscon* standard requires that remedial goals be in line with measured availability. Setting percentages arbitrarily have played a vital part in finding programs unconstitutional,

⁸¹ *AGC v. Caltrans*, No. 11-16228, at 4.

⁸² *H.B. Rowe*, 615 F.3d at 252.

⁸³ See, e.g., *Sherbrooke and Gross Seed*, 345 F.3d 964 (2003).

as evident with what the city of Richmond did in *Croson*. Setting goal percentages need to be based on statistical studies.⁸⁴

In *H.B. Rowe*, the Fourth Circuit found that NCDOT participation goals were related to percentage MBE availability. First, the NCDOT goals were set project by project. Second, NCDOT generates a report detailing the type of work likely to be subcontracted. Third, the NCDOT goal-setting committee checks its database for availability. Finally, the Fourth Circuit noted that 10 percent of the NCDOT projects had a zero M/WBE goal.⁸⁵

With regard to goals the Eleventh Circuit stated that, “we do not agree with the district court that it was “irrational” for the County to set a goal of 19% HBE participation when Hispanics make up more than 22% of the relevant contracting pool in every SIC category, and more than 30% for SIC 15. We see nothing impermissible about setting numerical goals at something less than absolute parity. Stated somewhat differently, a local government need not choose between a program that aims at parity and no program at all.”⁸⁶

2.2.2.2.2 Flexibility

Regarding flexibility, in *Kossman Contracting v. City of Houston*, the court found that the program met narrowly tailoring as it was flexible to accomplish its goals. The program employed goals as opposed to quotas, set goals on an individual contract level, allowed substitution of SBEs for MWBEs, instituted a process for allowing good-faith efforts and built in due processes.⁸⁷

Western States Paving also emphasizes the need for flexibility to show narrow tailoring in the DBE program. The court noted that a quota system is the hallmark of an inflexible affirmative action program. The court quoted *Grutter* stating that “[w]hile [q]uotas impose a fixed number or percentage which must be attained, or which cannot be exceeded, a permissible goal requires only a good-faith effort to come within a range demarcated by the goal itself.”⁸⁸ The court recognized that the TEA-21 DBE regulations explicitly prohibit the use of quotas.⁸⁹ Moreover, where race-conscious contracting goals are used, prime contractors can meet that goal either by subcontracting the requisite amount of work to DBEs or by demonstrating good faith efforts to do so.⁹⁰ A recipient of federal funds, likewise, cannot be penalized by the federal government for failing to attain its DBE utilization goal as long as it undertakes good faith compliance efforts.⁹¹ TEA-21 therefore provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*.⁹²

⁸⁴ *Contractors Ass’n v. City of Philadelphia*, 91 F.3d at 607 (“The district court also found significant that the ... Ordinance offered only one reference point for the percentages selected for the various set-asides -- the percentages of minorities and women in the general population”). See also *Builders Ass’n of Greater Chicago*, 256 F.3d at 647.

⁸⁵ *H.B. Rowe*, 615 F.3d at 253.

⁸⁶ *Eng’g. Contr. of S. Florida, Inc.* 122 F.3d at 927.

⁸⁷ *Kossman Contracting v. City of Hous.*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708, at *68 (S.D. Tex. Feb. 16, 2016).

⁸⁸ 539 U.S. 306.

⁸⁹ 49 C.F.R. § 26.43(a).

⁹⁰ *Id.* § 26.53(a).

⁹¹ *Id.* § 26.47(a).

⁹² *Grutter v. Bollinger*, 539 U.S. 982 (2003). See also *Sherbrooke Turf, Inc.*, 345 F.3d at 972 (“the [TEA-21] DBE program has substantial flexibility”).

2.2.2.2.3 Burden on Third Parties

Narrow tailoring also requires minimizing the burden of the program on third parties. Good Faith compliance is a tool that serves the purpose of reducing the burden on third parties.⁹³ The plaintiff in *Rowe* argued that the solicitation requirements were burdensome and that it was forced to subcontract out work that could be self-performed. The Fourth Circuit concluded that the solicitation requirements [Good Faith] could be met with existing staff, and the M/WBE program did not require subcontracting out work that could be self-performed.⁹⁴

2.2.2.2.4 Over-inclusion

Finally, narrow tailoring involves limiting the number and type of program beneficiaries. As noted above, there has to be evidence of discrimination to justify a group-based remedy, and over-inclusion of uninjured individuals or groups can endanger the entire program. In essence, there must be sufficient statistical evidence of discrimination to include a particular minority group in the remedial program. In *Croson*, the Court noted that “[i]f a 30% set-aside was “narrowly tailored” to compensate black contractors for past discrimination, one may legitimately ask why they are forced to share this “remedial relief” with an Aleut citizen who moves to Richmond tomorrow? The gross over inclusiveness of Richmond’s racial preference strongly impugns the city’s claim of remedial motivation.”⁹⁵

Additionally, as noted above in *Rowe*, there has to be evidence of discrimination to justify a group-based remedy, and over-inclusion of uninjured individuals or groups can endanger the entire program. The statistical evidence that was evaluated by the court to determine if the Statute’s definition of minorities was determined to be overinclusive by including groups for which the 2004 disparity study did not establish sufficient evidence of discrimination. Although, the statute in question limited relief to “those racial or ethnicity classifications . . . that have been subjected to discrimination in the relevant marketplace and that have been adversely affected in their ability to obtain contracts with the Department”⁹⁶ lumping all minority groups together may provide preference for groups where no discrimination was found.

2.3 Burden of Proof

The *Croson* decision imposes the original burden of proof upon the government to demonstrate that a challenged program is supported by documented evidence of past discrimination or current discrimination. The plaintiff then has the burden to prove that the program is unconstitutional through various methods such as the flawed methodology used by the government to show that past or present discrimination exists, the race-neutral reasons for the disparity, or the existence of controverting data.⁹⁷

In *Western States Paving*, the constitutionality of the requirement that contractors use race and gender-based criteria when awarding sub-contracts was challenged both “on its face” and “as applied.” A program can be constitutional “on its face” when it is unconstitutional in all circumstances of its application. The

⁹³ 49 C.F.R. § 26.53.

⁹⁴ *H.B. Rowe*, 615 F.3d at 254.

⁹⁵ *Croson*, 488 U.S. at 506.

⁹⁶ N.C. Gen. Stat. § 136-28.4(c)(2).

⁹⁷ See, e.g., *Concrete Works of Colo. v. City & County of Denver*, 321 F.3d 950, 959 (10th Cir. 2003), citing *Wygant v. Jackson Bd. of Education*, 476 U.S. 267, 277-78 (1986) (“The ultimate burden remains with the [plaintiff] to demonstrate the unconstitutionality of an affirmative-action program”).

court in *Western States Paving* found that the federal DBE regulations and their authorizing statute in TEA-21 were constitutional, and therefore, the federal DBE program is constitutional “on its face.” For example, as the court held in *Western States Paving*, the U.S. Congress could find that discrimination exists across the country and therefore, there is a compelling need for the program. The court also found that the federal DBE regulations were narrowly tailored for the national contracting industry.

On the other hand, a program can be constitutional “on its face” but unconstitutional “as applied” in a particular case. For example, while discrimination exists across the country, it may not exist in the jurisdiction that has the race- and gender-based case.

The Ninth Circuit Court of Appeals in *Western States Paving* held that the state of Washington failed to prove that there was adequate evidence of discrimination within the state’s contracting market and thus failed to meet its burden of demonstrating that its DBE program was narrowly tailored. The Ninth Circuit in *Western States* established a two-prong test: (1) the agency must establish the presence of discrimination in its own transportation industry, and (2) the affirmative action program must be “limited to those groups that have actually suffered discrimination.”⁹⁸ The Court discussed several ways in which the state’s evidence was insufficient:

- ◆ The state had not conducted a valid statistical study to establish the existence of discrimination in the highway contracting industry;
- ◆ The Washington State Department of Transportation’s (WSDOT) calculation of the capacity of DBEs to do work was flawed because it failed to account for the effects of past race- conscious programs on current DBE participation;
- ◆ The disparity between DBE participation on contracts with and without affirmative action components did not provide any evidence of discrimination;
- ◆ A small disparity between the proportion of DBE firms in the state and the percentage of funds awarded to DBEs in race-neutral contracts (2.7% in the case of WSDOT) was entitled to little weight as evidence of discrimination, because it did not account for other factors that may affect the relative capacity of DBEs to undertake contracting work;
- ◆ This small statistical disparity was not enough, standing alone, to demonstrate the existence of discrimination. To demonstrate discrimination, a larger disparity would be required;
- ◆ WSDOT did not present any anecdotal evidence of discrimination; and
- ◆ The affidavits required by 49 CFR 26.67(a), in which DBEs certify that they are socially and economically disadvantaged, did not constitute evidence of the presence of discrimination.

Consequently, the court found that the WSDOT DBE program was unconstitutional “as applied.”⁹⁹

The *Western States Paving* case noted that, although narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, “it does require serious, good faith consideration of workable race-neutral alternatives.” *Grutter v. Bollinger*, 539 U.S. 306, 339, 123 S.Ct. 2325, 156 L.Ed.2d 304 (2003);

⁹⁸ *Western States Paving*, 407 F.3d at 997-99. This two-prong test was re-affirmed in *AGC v. Caltrans*, 713 F.3d 1187, 1196 (9th Cir. 2013).

⁹⁹ *Id.* at 993 (citing *United States v. Paradise*, 480 U.S. 149 (1987)).

also see *Adarand III*, 515 U.S. at 237-38 (when undertaking narrow tailoring analysis, courts must inquire “whether there was any consideration of the use of race-neutral means to increase minority business participation in government contracting” (internal quotation marks omitted)).

TEA-21 DBE regulations place a preference on the use of race-neutral means, including informational and instructional programs targeted toward all small businesses, to achieve a government’s DBE utilization goal. The regulations require a state to “meet the maximum feasible portion of [its] overall goal by using race-neutral means.” 49 C.F.R. § 26.51(a). Only when race-neutral efforts prove inadequate do the regulations authorize a state to resort to race-conscious measures to achieve the remainder of its DBE utilization goal. *Western States Paving* recognized “[w]e therefore are dealing here with [regulations] that emphasize the continuing need to employ non-race-conscious methods even as the need for race-conscious remedies is recognized.”¹⁰⁰ However, the Ninth Circuit in *Western States Paving* and *AGC v. Caltrans* held that states are not required “to independently meet this aspect of narrow tailoring...”¹⁰¹ That is, states are not required to first actually implement race-neutral programs and evaluate their success prior to implementing race-conscious programs.

Western States Paving also emphasizes the need for flexibility to show narrow tailoring in the DBE program. The court noted that a quota system is the hallmark of an inflexible affirmative action program. The court quoted *Grutter* stating that “[w]hile [q]uotas impose a fixed number or percentage which must be attained, or which cannot be exceeded, a permissible goal requires only a good-faith effort to come within a range demarcated by the goal itself.”¹⁰² The court recognized that the TEA-21 DBE regulations explicitly prohibit the use of quotas.¹⁰³ Moreover, where race-conscious contracting goals are used, prime contractors can meet that goal either by subcontracting the requisite amount of work to DBEs or by demonstrating good faith efforts to do so.¹⁰⁴ A recipient of federal funds, likewise, cannot be penalized by the federal government for failing to attain its DBE utilization goal as long as it undertakes good faith compliance efforts.¹⁰⁵ TEA-21 therefore provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*.¹⁰⁶

With regard to burden of proof, the Eleventh Circuit stated that once the proponent of affirmative action introduces its statistical proof as evidence of its remedial purpose, thereby supplying the [district] court with the means for determining that [it] had a firm basis for concluding that remedial action was appropriate, it is incumbent upon the nonminority [employees] to prove their case; they continue to bear the ultimate burden of persuading the [district] court that the [public employer's] evidence did not support an inference of prior discrimination and thus a remedial purpose, or that the plan instituted on the basis of this evidence was not sufficiently “narrowly tailored.”¹⁰⁷

¹⁰⁰ *Id.* at 994 (citing *Adarand VII*, 228 F.3d at 1179).

¹⁰¹ *AGC v. Caltrans*, No. 11-16228, at 23; *Western States Paving*, 407 F.3d at 995, 997-98.

¹⁰² 539 U.S. 306.

¹⁰³ 49 C.F.R. § 26.43(a).

¹⁰⁴ *Id.* § 26.53(a).

¹⁰⁵ *Id.* § 26.47(a).

¹⁰⁶ *Grutter v. Bollinger*, 539 U.S. 982 (2003). See also *Sherbrooke Turf, Inc.*, 345 F.3d at 972 (“the [TEA-21] DBE program has substantial flexibility”).

¹⁰⁷ *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d 895, 916 (quoting *Howard v. McClucas*, 871 F.2d 1000, 1007 (11th Cir.1989)).

2.4 Conclusions

Within the Fifth Circuit and the state of Texas, the Southern District of Texas most recently considered a challenge to Houston's M/WBE program in *Kossman Contracting v. City of Houston*.¹⁰⁸ The case addressed an equal-protection challenge to the City of Houston's 2013 Small/Minority Business Enterprise Program for Construction Contracts. The opinion provides an up-to-date discussion of current constitutional standards, relying primarily on *Croson*, more recent Supreme Court guidance, and Fifth Circuit analysis.

The court conducted an extensive review of the disparity and availability study commissioned by the City of Houston and determined that the study provided strong evidence of ongoing discrimination in construction contracting processes, which justified the remedial program to combat the discrimination. The study's statistical analysis and anecdotal evidence were held to support the disparity findings, except as it pertained to Native Americans. The court analyzed five and one-half years of the City's construction contract records.

As summarized earlier, when governments develop and implement a contracting program sensitive to race and gender, they must understand the case law developed in the federal courts. These cases establish specific requirements that must be addressed so that such programs can withstand judicial review for constitutionality and prove to be just and fair. Given current trends in applying the law, local governments must engage in specific fact-finding processes to compile a thorough, accurate, and specific evidentiary foundation to determine whether there is, in fact, discrimination sufficient to justify an affirmative action plan. Further, state and local governments must continue to update this information and revise their programs accordingly.

In creating and implementing a race- or gender-conscious contracting program, it is necessary to understand how the courts have interpreted the constitutional requirements. To satisfy strict scrutiny, agencies must provide a compelling interest for a race- or gender-conscious program. While gender-conscious programs are subject to intermediate scrutiny in practice, there has not been a significant difference in the judicial review of race-conscious versus gender-conscious contracting programs.

The compelling interest begins with showing disparities, if any, between the availability and utilization of firms by demographic category. However, the disparity analysis must be supplemented by factoring in issues such as type of work, as well as firm capacity and interest in pursuing agency contracts. How subcontractors are treated in the absence of goals is also an important part of the factual predicate for a race and gender-conscious program. This quantitative analysis must then be supplemented with qualitative evidence from interviews, surveys and other methods of anecdotal data collection.

If a factual predicate is found for a race- and gender-conscious efforts, the program still must be narrowly tailored. Critical elements of narrow tailoring include taking race-neutral measures seriously, setting goals near business availability, having mechanisms for flexible program implementation, and avoiding the random inclusion of groups into the program. Working with these criteria, the federal courts have consistently ruled that the federal DBE regulations are narrowly tailored.

¹⁰⁸ *Kossman Contr. v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 37708 (S.D. Tex. Feb. 16, 2016), adopted by *Kossman Contr. Co. v. City of Houston*, No. H-14-1203, 2016 U.S. Dist. LEXIS 36758 (S.D. Tex. Mar. 22, 2016).

While the Supreme Court has yet to return to this exact area of law to sort out some of the conflicts, the Fifth Circuit has provided some guidance on core standards. Ultimately, MBE and WBE programs can withstand challenges if state and local governments comply with the requirements outlined by the courts.

FINAL DRAFT

3 Review of Policies, Procedures, and Programs

3.1 Introduction

Purchasing and contracting are essential functions of the City of Houston, TX (City) to deliver necessary services to its residents and visitors. As such, purchasing policies, procedures, and programs impact the City's departments and businesses seeking opportunities to provide goods or services requested by the City. **Chapter 3** includes an overview of the City's procurement process and examines the routine application of policies and procedures and the impact on suppliers seeking opportunities or doing business with the City. In addition, this chapter reviews the policies and procedures of the Office of Business Opportunity, examining efforts undertaken by the City to ensure equitable opportunities within purchasing and contracting.

MGT's review of policies and procedures is presented in six sections. Section 2 describes the methodology used to conduct the review of the City's procurement policies, procedures, and programs. The remaining sections summarize procurement policies, procedures, programs, and the structure and environment in which procurement and contracting occur. The review and examination of policies in this chapter is intended to provide the foundation for the analysis of availability in **Chapter 4**, utilization discussed in **Chapter 5**, and the findings and recommendations in **Chapter 8**.

3.2 Methodology and Definitions

This section summarizes the steps undertaken to review the City of Houston's procurement policies utilizing a methodology refined over the course of over 250 disparity studies. MGT's review included developing an understanding of the City's organizational structure and procurement roles and responsibilities of various departments. The policy review was conducted with the complete cooperation of the City staff who provided data, information, and assistance to MGT throughout the policy review. To conduct the policy review and to prepare this chapter, MGT's approach included collecting and reviewing procurement-related source documents. Procurement policies and practices were also reviewed and discussed with staff to better understand procurement practices and their impact on departments and suppliers doing business or seeking to do business with the City. However, an overall assessment of the impact of these policies and procedures can only be made in conjunction with the statistical and anecdotal evidence contained in **Chapters 4, 5, and 7** of this report. The review of policies and procedures included the following major steps:

- ◆ Finalizing the scope and parameters of the policy review.
- ◆ Collection, review, and summarization of the City's contracting and procurement policies.
- ◆ Collection, review, and summarization of policies, procedures, and related information and data pertaining to the City's business inclusion efforts.
- ◆ Collection and review of supplemental information and data pertinent to the policy review.

- ◆ Review of applicable federal, state, and city regulations and laws pertaining to procurement.
- ◆ Discussions with City staff with the responsibility for purchasing and/or administering components of the Office of Business Opportunity programs.
- ◆ Navigating the City’s website to help inform areas of inquiry and to identify information and resources available to businesses seeking opportunities with the City.
- ◆ Analysis of data and information gathered throughout the policy review to develop key findings and recommendations.

MGT collected and reviewed a variety of source documents and information pertaining to the policy review. Major source documents and other information collected and reviewed are itemized in **Table 3-1**.

TABLE 3-1. DOCUMENTS REVIEWED DURING POLICY AND PROCEDURES REVIEW

INDEX	DESCRIPTION
Procurement Related Documents	
1.	State Statutes and Regulations <ul style="list-style-type: none"> - Texas Local Government Code Chapter 171 – Regulation of Conflicts of Interest of Officers of Municipalities, Counties, and Certain Other Local Governments (Chapter 171 Conflict of Interest) - Texas Local Government Code Chapter 176 – Disclosure of Certain Relationships with Local Government Officers, Providing Public Access to Certain Information (Chapter 176 Disclosure of Relationships) - Texas Local Government Code Chapter 252 – Purchasing and Contracting Authority of Municipalities - Texas Local Government Code Chapter 271 – Purchasing and Contracting Authority of Municipalities, Counties, and Certain Other Local Governments - Texas Local Government Code Chapter 2252 – Contracts with Governmental Entity - Texas Local Government Code Chapter 2254 – Professional and Consulting Services - Texas Local Government Code Chapter 2269 – Contracting and Delivery Procedures for Construction Projects
2.	City of Houston Code of Ordinances, as of 10.30.2023 <ul style="list-style-type: none"> - Article V - Contracts
3.	City of Houston Administrative Policies <ul style="list-style-type: none"> - AP 5-7 -- Procurement Standards, Revised 08.08.2022 - AP 5-8 -- Informal Procurement, Revised 08.08.2022 - AP 5-9 -- Competitive Sealed Bids, Revised 08.08.2022 - AP 5-10 -- Request for Qualifications/Request for Proposals, Revised 07.10.2018 - AP 5-11 -- Exceptions to Competitive Procurements, Revised 12.12.2022
4.	City of Houston Processes <ul style="list-style-type: none"> - Request for Council Action Approval & Routing Process Overview of Procurement Code of Ordinance - Formal RFP (Over \$50,000) Process - Invitation to Bid (Over \$50,000) Contracts Process - Formal Invitation to Bid (Over \$50,000) Supply - Formal Invitation to Bid (Over \$50,000) One-Time & Rolling Stock - Invitation to Bid - (Under \$50,000)
Office of Business Opportunity Documents	
5.	Office of Business Opportunity (OBO) Policy and Procedures, Revised 02.02.2022
6.	Office of Business Opportunity (OBO) Certification Training Manual, Revised 04.03.2023
7.	Office of Business Opportunity Commercially Useful Function Audit Worksheet <ul style="list-style-type: none"> - Professional and Non-Professional - Construction

INDEX	DESCRIPTION
8.	Presentations <ul style="list-style-type: none"> - Certification Workshop Presentation, 04.20.2023 - Contract Compliance Overview, 06.02.2023 - Maximizing MWBE Participation Presentation Take II, 10.31.2022
	<i>Other Related Documents</i>
9.	City of Houston Fiscal Year 2024 Adopted Operating Budget
10.	City of Houston Disparity Study, NERA Economic Consulting (2012)

3.2.1 Definitions

The section which follows include selected definitions from the City of Houston Code of Ordinances (Code)¹⁰⁹ and Office of Business Opportunity (OBO) Policy and Procedures.¹¹⁰ The definitions helped to provide context for the procurement and contracting policies reviewed by MGT.

Airport Concession Disadvantaged Business Enterprise or **ACDBE**, as defined in 49 C.F.R. part 23, means a Disadvantaged Business Enterprise participating in the Federal Aviation Administration’s (FAA) ACDBE Program.

Armed Forces as defined in Section 15-91 of the Code means the United States Army, Navy, Air Force, Marine Corps, or Coast Guard.

Bid means the response submitted by a bidder to an invitation to bid (ITB), including any variation of the competitive bid process, such as best-value bid or multi-step bid.

Bidder as defined in Section 15-82 of the Code means any person or legal entity which submits a bid or proposal to provide labor, goods, or services to the City by contract for profit.

Categorical Goals means subcontracting goals established by contract category for departments that have a high volume of repetitive types of contracts.

Commercially Useful Function as defined in Section 15-82 of the Code.

Contract means a mutually binding legal document under which an entity provides goods, labor, or services to the City for profit. For purposes of the City’s program, a lease is considered to be a contract¹¹¹.

Contract Compliance Commission means a panel composed of five Houston-area citizens, appointed by the Mayor, who presides over selected City contract related issues, with the duties and powers as specified in Chapter 15 of the Code.

¹⁰⁹ Houston, Texas, Code of Ordinances, section 15-42 (2023).

¹¹⁰ City of Houston Office of Business Opportunity Policies and Procedures, Revised February 2, 2022

¹¹¹ Lease agreements are exempt from the analysis of this study, see **Section 4.2.2**.

Contracting Department or Department means a Department who is the procurer of goods or services on a particular contract or the Department or City division responsible for managing a multidepartment contract.

Contractor as defined in Section 15-82 of the Code, means any person or legal entity providing goods, labor, or services to the City by contract for profit.

Contract-Specific Goals means the subcontracting goals for MBE, WBE, and MWBE participation established for a particular contract based on the divisibility of the contract and the availability of MBE and WBE firms to perform that divisible work.

Chronic or permanent character as defined in Section 15-91 of the Code means, with respect to a medically determined physical or mental impairment, that the impairment is medically anticipated to be of a continuing nature, with no present prognosis of complete or substantially complete recovery through the passage of time and/or the application of presently available medical treatment or rehabilitative therapy.

Citywide Aspirational Goals means goals for specific contract types that mirror the Houston Metropolitan Statistical Area (MSA) or other geographic area availability percentages of MBE and WBE companies as established by the most recent availability data for each contract type.

Disabled veteran as defined in Section 15-91 of the Code means an individual who served on active duty in the Armed Forces, separated from the Armed Forces under honorable conditions, and has a disability rating letter issued by the Department of Veterans Affairs establishing a service-connected disability rating between zero and one hundred percent, or a disability determination from the Department of Defense.

Disadvantaged Business Enterprise or DBE, as defined in 49 C.F.R. part 26, are for-profit small business concerns where socially and economically disadvantaged individuals own at least a 51% interest and also control management and daily business operations including the following presumed groups:

- a) Asian-American; African American; Native American; Hispanic; Women
- b) Must be a small business as defined by the Small Business Administration (SBA)
- c) Personal Net Worth Limit: \$1,320,000

Director means the head of a City of Houston Department.

Directory means either the online Directory of MWSBE and PDBE certified companies or the online Directory of DBE and ACDBE companies certified through the Texas Unified Certification Program.

Document 00470, Document 00471, and Document 00472 refer to a construction Bidder's MWSBE participation plan, Pre-Bid Good Faith Efforts, and MWSBE Goal Deviation Request, respectively.

Document 00800 means the City of Houston's Supplementary Conditions document found in solicitation packages. In reference to OBO, this document summarizes the Good Faith Efforts Policy and highlights any applicable MWSBE goal(s).

Document 00808 means the City of Houston's requirements for the City of Houston's MWSBE and PDDBE program including the Good Faith Efforts Policy.

Established business enterprise as defined in Section 15-82 of the Code means a MWSBE or any business applying for Certification as a MWSBE that, by virtue of its size meets or exceeds the standards promulgated by the U.S. Small Business Administration for that category of business, as determined by the procedures described in section 15-87(a) of Chapter 15.

Functional Mission means the types of core goods or services a business provides.

Goal-oriented contract as defined in Section 15-82 of the Code means any, contract, agreement, or other undertaking anticipated for construction work in excess of \$1,000,000.00 and for the supply of goods or non-personal or nonprofessional services in excess of \$100,000.00: (a) for which competitive bids are required by law; (b) which is not within the scope of the disadvantaged business enterprise programs of the United States Environmental Protection Agency, or the United States Department of Transportation, or any other federal or state agency having jurisdiction; and (c) the initiating Department, in consultation with the OBO director, determines the significant subcontracting potential in fields in which there adequate numbers of known MWSBEs to compete for and perform the necessary subcontracted services.

Good Faith Efforts as defined in Section 15-82 of the Code shall refer to steps taken to achieve a MWSBE goal or other requirements which, by their scope, intensity, and usefulness demonstrate a bidder's responsiveness to fulfill the business opportunity objective prior to the award of a contract and a Contractor's responsibility to put forth measures to meet or exceed a MWSBE goal throughout the duration of the contract.

Good Faith Efforts Policy refers to the OBO's document defining and outlining how a Contractor's Good Faith Efforts to achieve their certified firm participation goal(s) are assessed by the City.

Joint Venture as defined in Section 15-82 of the Code means an association of a MWSBE and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills, and knowledge; and in which the MWSBE(s) is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Local means a business that is located in the geographical area or region identified as the metropolitan statistical area that includes the City of Houston, as defined by the United States Office of Management and Budget within the Executive Office of the President of the United States, as amended.

Major life activities as defined in Section 15-91 of the Code mean functions significantly affecting a person's quality of life, such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

Medical doctor means an individual licensed to practice medicine in the State of Texas.

Medically determined as defined in Section 15-91 of the Code means determined by a medical doctor.

MWBE means, collectively, MBEs and WBEs related to non-construction projects.

MWSBE means, collectively, MBEs, WBEs, and SBEs.

Minority Business Enterprise or **MBE** as defined in Section 15-82 of the Code means a business which is:

- a) A sole proprietorship in which the owner is a minority person who owns, controls, and manages the business; or
- b) A corporation in which at least 51 percent of the stock or of the assets of such corporation is owned, controlled, and managed by one or more minority persons; or
- c) A partnership in which at least 51 percent of the assets of such partnership is owned, controlled, and managed by one or more minority persons; or
- d) Any other business or professional entity in which at least 51 percent of the assets in such business or professional entity is owned, controlled, and managed by one or more minority persons; or
- e) Any entity in which at least 51 percent of the assets of such entity is owned, controlled, and managed by one or more minority persons and one or more women and such minority person; or
- f) A business which has been certified as an MBE by OBO.

Minority person as defined in Section 15-82 of the Code means a citizen or legal resident alien of the United States who is:

- a) Black American, which includes persons having origins in any of the black racial groups of Africa;
- b) Hispanic American, which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
- c) Asian-Pacific American, which includes persons having origins from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, the Federated States of Micronesia, or Hong Kong, or the region generally known as the Far East;
- d) Native American, which includes persons having origins in any of the original peoples of North America, American Indian, Eskimo, Aleut, Native Hawaiian; or
- e) Subcontinent Asian American, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal, or Sri Lanka.

Origin or **descent** can be regarded as the ancestry, nationality group, lineage, or country in which the person or persons' parents or ancestors were born before their arrival in the United States.

NAICS stands for the North American Industry Classification System.

OBO refers to The Office of Business Opportunity.

Owned, controlled, and managed as defined in Section 15-82 of the Code means that the one or more minority persons or women who own the requisite interests in or assets of a business applying for certification possesses equivalent incidents of such ownership, including an equivalent interest in profit and loss, and has contributed an equivalent percentage of capital and equipment to the business. Contributions of capital and equipment must be real and substantial. In instances where expertise is relied

upon to demonstrate ownership, control, and management, it must be shown that the expertise is: (1) in a specialized field; (2) in an area critical to the firm's operation and performance of a commercially useful function; (3) critical to the firm's continued success; and (4) documented in the records of the firm, including but not limited to documentation showing the particular expertise and its value to the firm. Additionally, the individual whose expertise is relied upon must have a significant financial investment in the business.

Ownership shall be measured as though not subject to the community property interest of a spouse, if both spouses certify in writing that the nonparticipating spouse relinquishes control over his or her community property interest in the subject business (but by doing so is not required to transfer to his or her spouse his or her community property ownership interest or to characterize the property as the separate property of the spouse). [As it relates to controlled and managed,] the one or more minority person or woman owners shall have recognized ultimate control over all day-to-day business decisions affecting the MBE or WBE and shall hold a title commensurate with such control. Such ultimate control shall be known to and at least tacitly acknowledged in day-to-day operations by employees of the business and/or external parties. Additionally, the individual whose expertise is relied upon must have a significant financial investment in the business.

Personal property means any movable or intangible thing that is subject to ownership and not classified as real property.

Person with a disability as defined in Section 15-91 of the Code means a disabled veteran or a citizen or legal resident alien of the United States who has a presently existing, medically determined physical or mental impairment of a chronic or permanent character which substantially limits one or more of his or her major life activities. The term persons with disabilities shall not include individuals currently engaging in the illegal use of drugs or currently engaging in the abuse of alcohol. However, the term persons with disabilities does not exclude individuals who have successfully completed a supervised drug or alcohol rehabilitation program and are no longer engaging in the illegal use of drugs or the abuse of alcohol and who otherwise qualify as persons with disabilities under the criteria set forth in Chapter 15, Article VI of the Code.

Persons with Disabilities Business Enterprise or PDBE as defined in Section 15-91 of the Code means a business that is:

- a) A sole proprietorship in which the owner is a person with a disability who owns, controls, and manages the business; or
- b) A corporation in which at least 51 percent of the stock or of the assets of the corporation is owned, controlled, and managed by one or more persons with a disability; or
- c) A partnership in which at least 51 percent of the assets of the partnership is owned, controlled, and managed by one or more persons with a disability; or
- d) A Joint Venture in which at least 51 percent of the interests of the Joint Venture is owned, controlled, and managed by one or more persons with a disability; or
- e) Any other business or professional entity, in which at least 51 percent of the assets in the business or professional entity is owned, controlled, and managed by one or more persons with a disability.

Prime Contractor shall mean the party who directly contracts with the City of Houston to provide the goods, labor, or services in fulfillment of terms of a contract with the City of Houston.

Procurement means the process by which pricing, qualifications, and bids and/or proposals for goods and services are solicited from vendors, which may result in contracts for the purchase of such goods or services. Procurement includes three phases: planning and sourcing, solicitation (through the selected method of procurement and contract award) and contract administration (performance and close-out).

Professional Services, means services that contemplate labor and skill that are predominantly mental or intellectual rather than physical or manual and includes services of members of disciplines requiring special knowledge or attainment and a high order of learning, skill, and intelligence.

Proposal means the response submitted by a vendor in response to a request for proposals (RFP) issued by the city.

Public private partnership (P3) means an agreement between the city and the private sector by which the private sector makes physical assets or services available to a public entity for an extended term in exchange for fixed payments over a term of 20 years or more.

Public work means a project calling for the construction, repair, or renovation of buildings, streets, bridges, sewers, water lines, or any other publicly owned improvements to real property.

Regulated contract as defined in Section 15-82 of the Code means any contract, agreement, or other undertaking:

1. for which competitive bids are not required by law, [typically professional services in nature];
2. that is not covered by the MBE/WBE programs of any state or federal agency having jurisdiction [which expressly prohibits application of the City of Houston's local program;] and
3. that the recommending Department has determined, in consultation with the Director of OBO either: (a) has significant subcontracting potential in fields in which there are sufficient known MWSBEs to perform the particular subcontract service(s); or (b) is a type for which there are sufficient known MWSBEs who have represented their ability to perform the prime contract service to afford effective competition for the prime contract.

Request for proposals (RFP) means the document used to solicit proposals for services or a combination of goods and services from vendors. Price is not the primary evaluation criterion but is a factor considered in the determination of best value and affordability. The process may consist of two steps (prequalification and proposals) or a single step (proposals including consideration of quality).

Request for qualifications (RFQ) means the document used to solicit statements of qualifications from vendors. The process is generally used to pre-qualify vendors as part of a multistep process or to select professional services prohibiting price as a consideration or whenever the best interest of the city is served.

Reverse auction means a real time bidding process that occurs online and allows vendors to compete during the short time allowed for the bidding. Each vendor knows the bids of all the others and can repeatedly amend a bid while the auction proceeds.

Small Business means a firm whose gross revenues or number of employees, averaged of the past three years, inclusive of any affiliates as defined by 13 CFR Section 121.103, does not exceed the size standards defined in Section 3 of the Federal Small Business Act and applicable Small Business Administration regulations related to the size standards found in 13 CFR Part 121. [For gross revenue calculation, an average over the past three years or five years will be considered if the firm has been in business for over five years. For number of employee calculation, it is an average for each of the pay periods for the most recently completed 12 calendar months.] The term shall also include a certified minority/women business enterprise defined in the Code.

Solicitation means the document used to solicit bids, proposals, or qualifications.

Subcontractor as defined in Section 15-82 of the Code means any business providing goods, labor, or services to a Contractor if such goods, labor, or services are procured or used in fulfillment of the Contractor's obligations arising from a contract with the City of Houston.

Submission means the document responding to an RFQ.

Threshold means the amount of expenditure that triggers a requirement for a competitive procurement under state law, as may be amended from time to time.

Vendor means a provider of goods and/or services, including professional and construction services, that does business or seeks to do business with the city.

Woman means a person who is a citizen or legal resident alien of the United States and who identifies her gender as female.

Women Business Enterprise or WBE as defined in Section 15-82 of the Code means a business which is:

- a) A sole proprietorship in which the owner is a woman who owns, controls, and manages the business; or
- b) A corporation in which at least 51 percent of the stock or assets of such corporation is owned, controlled, and managed by one or more women; or
- c) A partnership in which at least 51 percent of the assets of such partnership is owned, controlled, and managed by one or more women; or
- d) Any other business or professional entity in which at least 51 percent of the assets in such business or professional entity is owned, controlled, and managed by one or more women; or
- e) Any entity in which at least 51 percent of the assets of such entity is owned, controlled, and managed by one or more minority persons and one or more women; or
- f) A business which has been certified as a WBE by OBO.

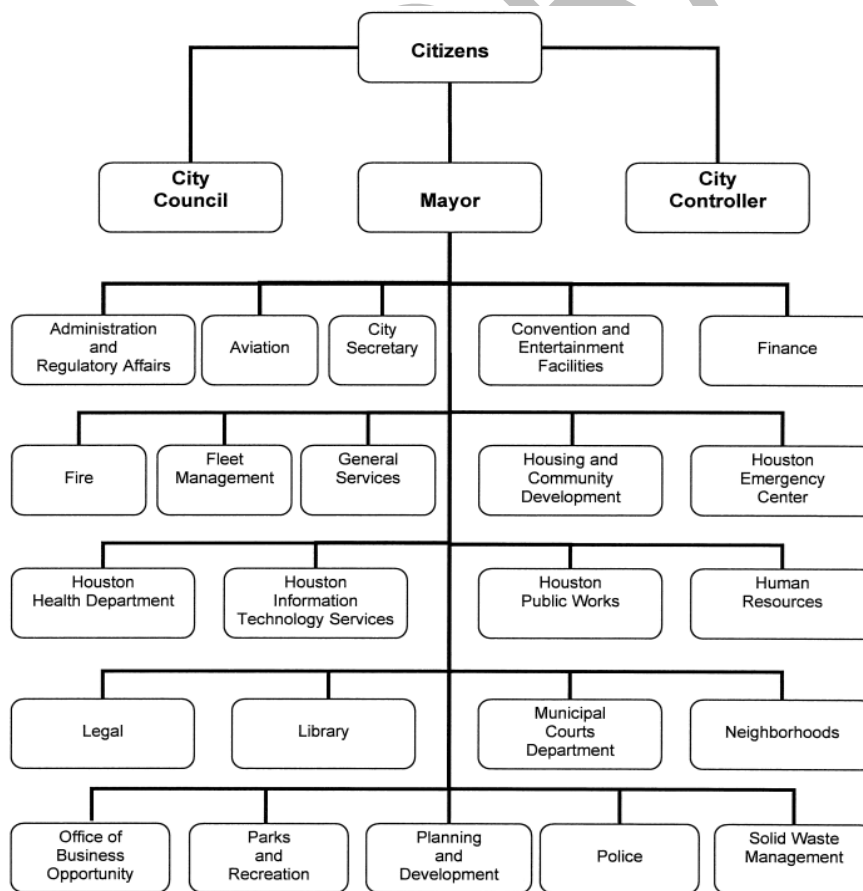
Work services means services that are not of a professional or consulting nature that involve manual labor or are performed by skilled trades.

3.3 Procurement Environment and Structure

The structure and environment in which the City of Houston’s procurement and contracting occurs were important for understanding the operational impact of procurement policies on departments and businesses seeking to meet the City’s service requirements. As such, the City’s organizational structure was essential for placing procurement and contracting into the proper context and understanding the role of certain entities in the procurement cycle. The following exhibits (**Exhibit 3-1** to **3-2**) show the organizational structure for the City and Strategic Purchasing Division (SPD), respectively.

The exhibits convey the size and complexity of Houston’s municipal government and the procurement cycle. With a budget of \$6.2 billion, organized around the Mayor Turner’s Priorities for the City: Complete Communities, Public Safety, Services and Infrastructure, Sound Financial Management, and Resilient Houston¹¹², procurement and contracting are vital activities. Organization entities such as the City Council, Strategic Purchasing Division, OBO, and end-user departments play a critical role in the procurement cycle.

EXHIBIT 3-1.
CITY OF HOUSTON ORGANIZATION CHART

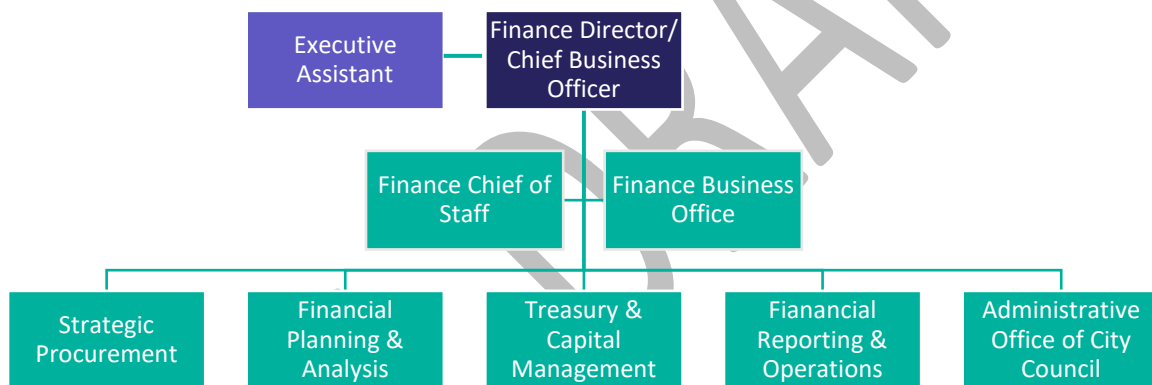


Source: City of Houston 2024 Adopted Operating Budget

¹¹² City of Houston Fiscal Year 2024 Adopted Operating Budget

As shown in **Figure 3-1**, the Strategic Procurement Division is housed within the Department of Finance. The Chief Procurement Officer leads the Division which is responsible for the acquisition and procurement of goods and services according to established policies and procedures for advertisement, solicitation, and approval. The division is comprised of six (6) buying groups: Commodity & Equipment, Fleet, One-Time Purchases, Small Purchases, Specialized Commodities and Services, and Work Services. In carrying out its procurement functions, the Division subscribes to the standards set forth by the National Institute of Governmental Purchasing (NIGP). The Division coordinates the centralized procurement activities of the City, except for construction services, design projects, utility lease agreements, and concession contracts which are procured by the General Services Department, Public Works Department, and Houston Airport Systems. The Division is committed to “manage, facilitate, and provide the highest quality, value-added procurement services that exceed the needs and expectations of our customer.”¹¹³

FIGURE 3-1.
DEPARTMENT OF FINANCE ORGANIZATION CHART



Source: MGT adapted from Finance Department FY2024 Proposed Budget Workshop Presentation, May 17, 2023

Ideally, procurement systems should be operated in a transparent, cost-effective, and responsive manner to provide goods and services, professional services, and construction services. Based on MGT’s experience, procurement systems are responsible for the following:

- ◆ Obtaining goods and services of good quality at fair and reasonable cost.
- ◆ Maximizing the purchasing value of public funds.
- ◆ Adhering to laws, regulations, processes, and procedures.
- ◆ Obtaining goods and services in a timely and equitable manner.

A broad spectrum of activities should be carried out according to procurement regulations and to acquire goods and services that meet internal and external needs. For this policy review, discussions with staff provided valuable insight into procurement and contracting. Discussions with staff focused mainly on procurement and contracting policies and their impact on providing opportunities for businesses to conduct business with the City and the City’s primes.

¹¹³ Strategic Procurement Division website, 2023.

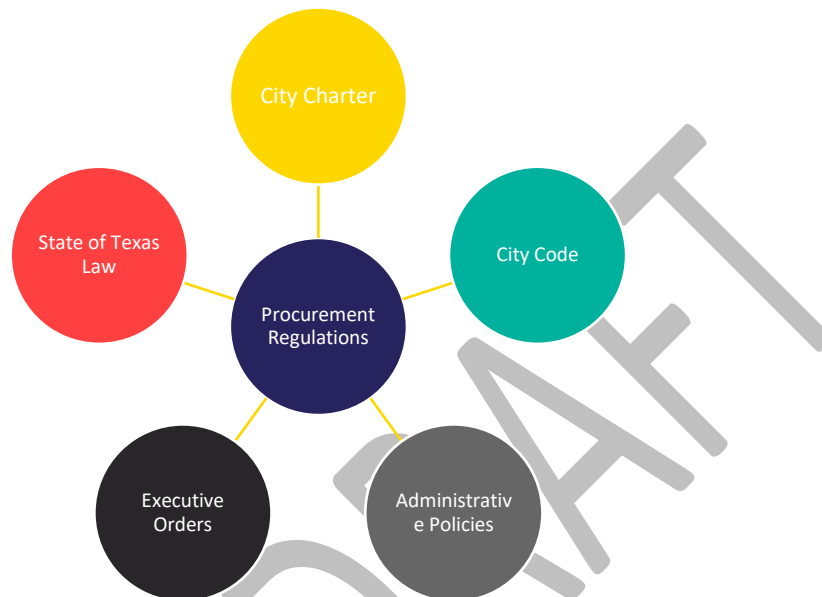
It is the policy of the City to stimulate the growth of local minority, women, and small business enterprises (MWSBEs) by encouraging the full participation of these business enterprises in various phases of city contracting. Organizationally, OBO is critical in executing the City's commitment to equity and inclusion as outlined in the Code of Ordinance (Code), Chapter 15, Articles II, V, VI and XI, as amended. A detailed discussion of OBO is provided in a subsequent section of this chapter.

3.3.1 Procurement and Contracting Process

The overview which follows is narrowly focused on policies and practices which have a more direct impact on access to procurement opportunities. To review procurement policies, MGT reviewed the policy related documents and information listed in **Exhibit 3-1** with a major focus on the Code, specifically Chapter 15 Articles III and V, Administrative Polices 5-7 through 5-11, and the OBO Policies and Procedures. In its review, MGT paid considerable attention to MWSBE participation requirements/provisions since the underlying premise for conducting a disparity study is determining whether a public entity passively or actively engages in discrimination against business owners based on race, ethnicity, and gender. As such, how procurement policies are operationalized to facilitate MWSBE participation is important. The sections which follow are intended to provide a high-level summary of procurement policies and procedures. It is not intended to provide a detailed discussion of processes associated with each policy or how policies are carried out. MGT's primary focus was on how policies are being used to facilitate increased access to procurement opportunities and whether there are barriers or impediments to such access.

Based on MGT's experience, an efficient and effective procurement and contracting process is largely dependent on knowledgeable and skilled staff and well executed laws, regulations, and policies. The diagram in **Figure 3-2** shows the linkage between laws, policies, procedures, and resolutions that dictate procurement and contracting by the entities shown in **Exhibit 3-1** through **Exhibit 3-3**.

FIGURE 3-2.
PROCUREMENT REGULATIONS



Source: Created by MGT, 2023

The laws and regulations governing the City’s procurement process components in **Figure 3-2** are found in various source documents. Pursuant to the Houston City Charter, the City Council has the authority to prescribe competitive bidding procedures as long as such procedures are in accordance with state law.¹¹⁴ Ordinances passed by the City Council pertaining to procurement and contracting are codified in the Code. Included within the Code are provisions establishing OBO and its Minority, Women, Small Business Enterprise (MWSBE), and Persons with Disabilities Business Enterprise (PDBE) Programs.

The City’s internal processes and procedures are established by the sponsoring department and its subject matter experts. All departments are afforded the opportunity to appoint a Policy Management Liaison to offer comments and suggestions to the sponsoring department during the Policy creation, revision, and rescission process. The Administration & Regulatory Affairs Department maintains the Administrative Policy Repository¹¹⁵.

Annually, departments submit a Procurement Plan which describes the products or services anticipated to be acquired for the fiscal year, including the contracting department, category of product or service, and anticipated value. A Procurement Plan increases the efficiency, effectiveness, and transparency of the procurement process. The information provided assists with acquisition planning by helping vendors learn about potential contracting opportunities early in the procurement process. **Exhibit 3-3** shows the solicitation methods utilized by the City outlined in the Code. **Exhibit 3-3** is intended to provide a high-level overview and is not intended to reflect the specifics of each type of solicitation. Based on MGT’s

¹¹⁴ Houston, Texas, Charter, Article II section 19 (2023).

¹¹⁵ Employee Policies and Procedures – Policy Setting Process, website (2023)

review, ample policy guidance, and detail for solicitations are provided in the Chapter 15 Articles III and V, Administrative Polices 5-7 through 5-11, and SPD’s website.

EXHIBIT 3-2.
SOLICITATION METHODS AND TYPES

Solicitation Method	Description	Solicitation Type
Formal	Required for procurement valued at more than \$50,000	Invitation to Bid (ITB): Competitive Sealed Bids awarded to the lowest responsive and responsible bidder. Request for Proposal (RFP): Competitive sealed proposals awarded to the highest scoring responsive and responsible proposer.
Informal	Used to obtain the best value when making purchases valued greater than \$3,000 and \$50,000 or less.	Invitation to Bid (ITB): Obtains quotes from at least three entities. Purchase Orders (PO): Purchases for goods and services less than \$20,000.
Non-Competitive Procurement	Include procurements that no advantage will result in obtaining competitive responses	Sole source: Unique specifications, qualities, or capabilities of the items substantiate a sole source exception. Emergency Purchase Order (EPO): Procurements that would otherwise require Council approval, but public welfare would be adversely impacted by awaiting approval of the Council.
Innovative Methods	CPO must make a determination that such process is competitive and in the best interest of the city. Innovative methods may take into consideration market conditions, spend analysis, and other factors.	Interlocal agreement: Agreements with other governmental entities in order to cooperatively perform governmental functions and services. Public-private partnerships (P3s): Agreements between public entities and the private sector by which the private sector makes physical assets or services available to a public entity in exchange for payments over a term of twenty years or more. Cooperatives: Purchasing program with another local government or a local cooperative organization.

Source: Prepared by MGT.

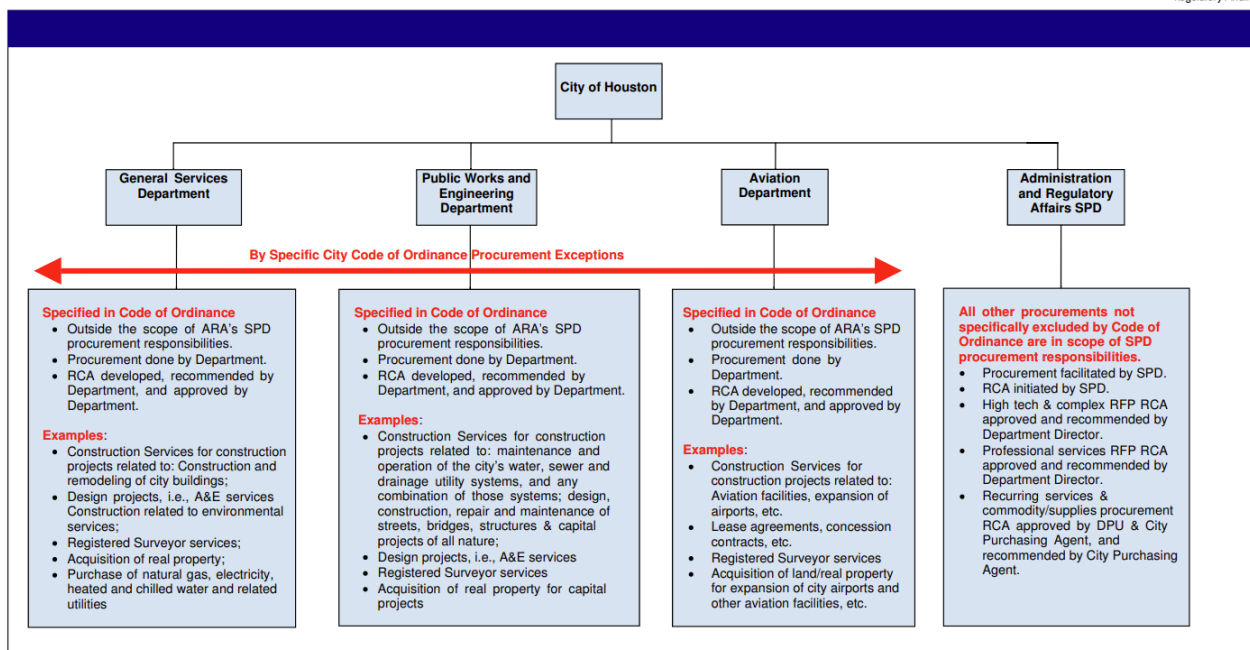
Each City department uses one or more of the solicitation methods and types listed in **Exhibit 3-4**. The City Charter requires City Council approval for contract awards exceeding \$50,000 per vendor/per fiscal year or patterns of payments across fiscal years that exceed \$50,000. As mentioned, the SPD is the central purchasing entity for the City, except for construction or public works contracts, design services, lease agreements, and concessions. When a firm responds to City solicitations with advertised contract-specific MWBE goal(s), a participation plan detailing which certified subcontractors, they plan to use must also accompany the solicitation response. MWBE primes are permitted to self-perform and count toward up

to 50% of the MWBE goal. The lowest responsive and responsible offeror’s plan is then reviewed and approved by the department if it meets the advertised contract goal(s). OBO is responsible for reviewing the recommended vendors and consultants bid or proposal documents, on solicitations with goals, prior to award to ensure that a good faith effort to achieve MWSBE participation was demonstrated. Once approved by the department, the bid package is submitted to the City Council for approval of contract execution via Request for Council Action (RCA). **Exhibit 3-5** further describes the procurement Code and steps departments take for award recommendations.

EXHIBIT 3-3.



CITY OF HOUSTON PROCUREMENT
Request for Council Action Approval & Routing Process
Overview of Procurement Code of Ordinance



Source: Strategic Procurement Department website, 2023

Informal solicitations facilitate optimal opportunities for MWSBEs to conduct business with public entities based on MGT’s experience. Per Chapter 252 of the Texas Local Government Code (Sec. 252.0215); expenditures exceeding \$3,000 and below \$50,000 are subject to requirements for contracting historically underutilized businesses. For such purchases, SPD publishes the informal opportunities on its website, obtains quotes from at least three entities, and reports results back to departments to make the purchase.¹¹⁶ Of these quotes, at least two must be solicited by historically underutilized businesses if certified as such by OBO. If there are no OBO-certified firms for the particular purchase, the State of Texas Historically Underutilized Business Directory may be used.

¹¹⁶ Administrative Policy 5-8 -- Informal Procurement, Revised 08.08.2022

3.3.2 Resources for Doing Business with the City

Navigating the City’s procurement and contracting process is essential for businesses and city departments. As such, the guidance, direction, and support provided to vendors and city staff is critical. Typically, an organization’s website is the starting point for seeking information about procurement procedures and opportunities. As part of this review, MGT navigated the City’s website to determine what information is provided regarding procurement and contracting processes, resources, and assistance available to all vendors and City staff. MGT paid particular attention to the SPD’s website and OBO’s link “Doing Business with the City.” The “Guide to Doing Business with the City” section contains a complete outline of the steps required to register as a City vendor and overview of bid and RFP processes.

During this procurement review, it was noted that SPD is transitioning its e-procurement platform to SAP Business Network. This transition will help the City fulfill its vision of moving away from paper and towards automating the procurement process. The transition coincides with the Division’s rebranding of “Doing Business with the City” to “Biz with HOU”.

3.3.3 Procurement Environment and Structure Observations

The major impetus for this Disparity Study is participation and utilization of MWSBEs in procurement and contracting. In fact, the City’s commitment to equity and economic empowerment through greater participation of MWSBEs was a key factor in conducting this Study at this time. MGT’s experience has shown that the successful inclusion of MWSBEs is dependent upon policies and procedures that are consistently followed, strong enforcement and compliance mechanisms, effective outreach, information and assistance, and staff who are supportive and sensitive to the participation and utilization of MWSBEs.

Discussions with City staff provided insight into how purchasing processes are operationalized and how the City departments and suppliers are affected. Such activities require the coordination and collaboration among departments and the Strategic Procurement Division, where appropriate. Based on MGT’s review, staff tended to be knowledgeable about the procurement cycle and related policies as well as requirements pertaining to minority, women, and small business enterprises participation. The discussions with City staff, who represented various departments, revealed awareness and sensitivity to the participation of small businesses and those owned by minority, women, and persons with disabilities. To conduct this component of the policy review in addition to discussions with City staff, MGT relied heavily on source documents in **Exhibit 3-1** and the resources and information on the City’s OBO and SPD websites.

3.4 Office of Business Opportunity

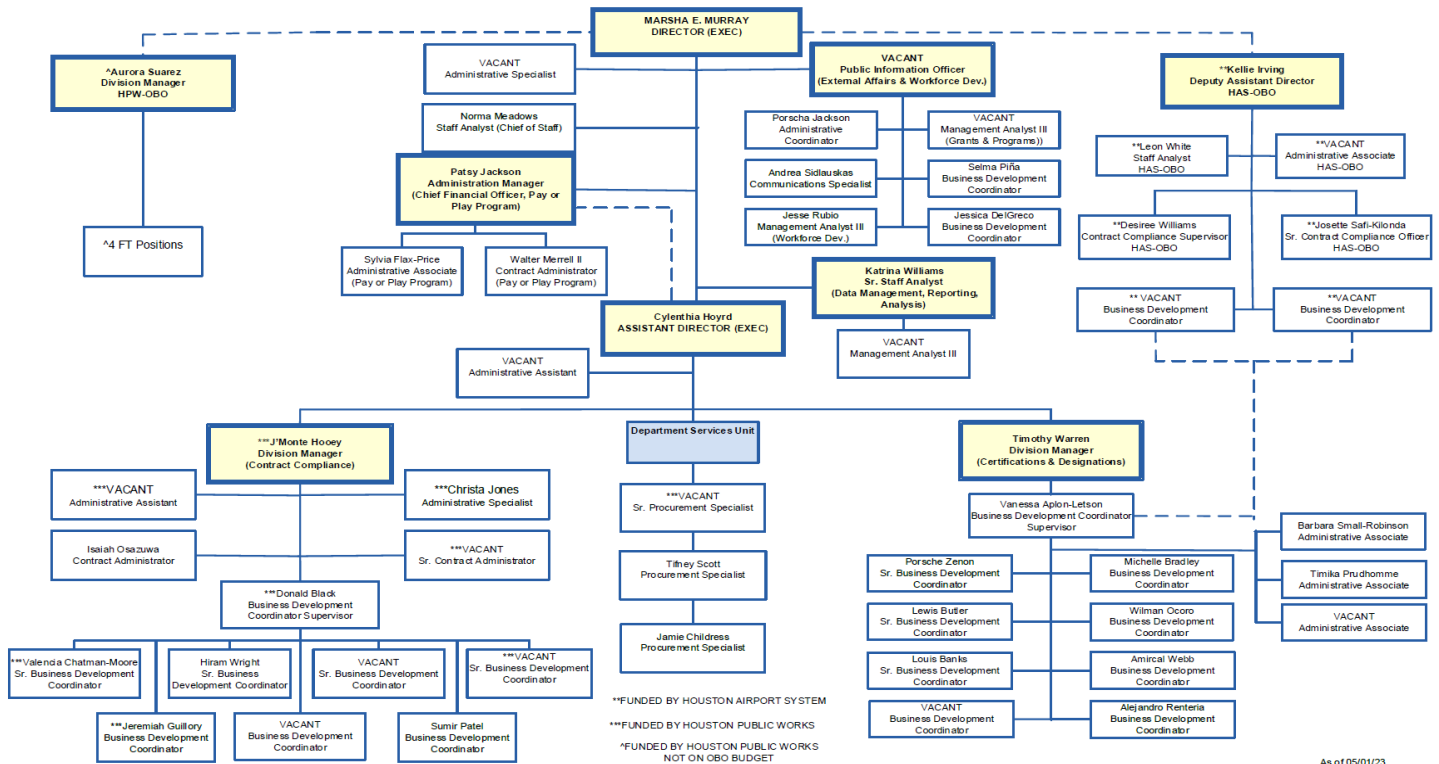
The City of Houston’s Office of Business Opportunity administers programs that attempt to address previous marketplace discrimination and barriers faced by MWBEs in its contracting.¹¹⁷ These practices are categorized into two distinct remedies: race- and gender-conscious and race- and gender-neutral measures. Race- and gender-conscious measures are specifically designed to encourage the participation of minority- and woman-owned businesses in an organization’s contracting. OBO’s Minority and Women Business Enterprise (M/WBE) Program, Disadvantaged Business Enterprises (DBE) Program, and Airport

¹¹⁷ City of Houston Disparity Study, NERA Economic Consulting, (2012)

Concession Disadvantaged Business Enterprises (ACDBE) Program are race- and gender-conscious programs. In contrast, race- and gender-neutral measures are methods designed to encourage the participation of all businesses in an organization’s contracting and do not consider the impact of active or passive race, ethnicity, or gender discrimination. OBO’s Small Business Enterprise (SBE) Program and Persons with Disabilities Business Enterprise (PDBE) Programs are both race and gender neutral.

The Code, Chapter 15, Articles II, V, VI, and XI, as amended, authorizes the creation of MWSBE and PDBE Programs. As required in the Code, OBO has established policies and procedures for the implementation of Chapter 15, Articles II (Anti-Discrimination Provisions in City Contracts), V, VI, and XI. Under the Texas Unified Certification Program, OBO is authorized to process certifications on behalf of the United States Department of Transportation (DOT) DBE and ACDBE program recipients, subrecipients, and grantees included in the Houston Metropolitan Statistical Area (MSA) pursuant to Title 49 of the Code of Federal Regulations, Parts 23 and Part 26. In addition, as a recipient and sub-recipient of U.S. DOT funds, OBO monitors U.S. DOT contracts in compliance with Title 49 of the Code of Federal Regulations, Parts 23 and Part 26. The organizational structure for OBO is shown in **Exhibit 3-5**.

EXHIBIT 3-4.
OFFICE OF BUSINESS OPPORTUNITY ORGANIZATION CHART



Source: Office of Business Opportunity, 2023

3.4.1.1 Policy Statement

The policy of the City is to stimulate the growth of local minority, women, and small business enterprises by encouraging the full participation of these business enterprises in various phases of city contracting, as

set forth in of Section 15-81 of the Code. Therefore, the mission of OBO is to “cultivat[e] an inclusive and competitive economic environment in the City of Houston by promoting the success of small businesses and developing Houston’s workforce, with a special emphasis on historically underutilized businesses and disenfranchised individuals”.¹¹⁸

The City’s OBO policies were developed in direct response to their obligation to establish procedures for implementing Chapter 15, Article V in the Code. In addition to compliance with the Codes, OBO has three main objectives directed toward the MWSBE community:

- 1) Educate MWSBEs
- 2) Connect MWSBEs to opportunities
- 3) Assist businesses with growing their capacity, which will increase their business growth.

To achieve the above objectives, OBO is structured into five key functions.¹¹⁹ The organizational structure of the OBO Department is shown in **Exhibit 3-4**:

- ♦ **Administrative Services:** Administration Services sets and implements the strategic direction, policies, and long-term goals of the department. This function manages all budget and personnel matters, analytics, Title VI compliance, and directly engages with the Mayoral Administration, City Council, and the general public in the execution of OBO’s mission.
- ♦ **Business Support and Development:** Business Support and Development, formally known as the OBO Solutions Center (OBOSC), interfaces with the local business community and MWSBE organizations to establish relationships and to keep the local community informed regarding opportunities. The promotion of opportunities to MWSBEs increases the number of businesses that participate in the bidding process leading to more vigorous competition in the marketplace. OBOSC is frequently the first point of contact for individuals wishing to start, operate, or grow a business, regardless of certification status.
- ♦ **Certification and Designations:** The Certification team administers the City’s certification program as mandated by Code and USDOT regulations. The Team is responsible for investigating companies applying for MWSDBE/PDBE certification, maintaining files for applicants seeking certification, and producing the MWSDBE/PDBE Directory. As various City departments generate procurement opportunities, it is critical that those departments have access to ready, willing, and able MWSBEs to respond to their procurement opportunities.
- ♦ **Contract Compliance:** OBO’s Contract Compliance Division monitors and audits Prime Contractors’ performance related to MWSDBE goals and Labor & EEO laws. The team provides the administrative and logistical support required for adequate MWSDBE utilization on City contracts, except for the Houston Airport System and Housing and Community Development Department. OBO’s compliance process begins when MWSDBE

¹¹⁸ Office of Business Opportunity, website (2024)

¹¹⁹ OBO also provides workforce development programs which includes the Turnaround Houston Job and Readiness Fairs which are held several times per year.

goals are established and communicated for solicitations. This function coordinates compliance activities with each contracting department to ensure awareness of compliance requirements.

- ◆ Department Services: The Department Services Unit promotes the growth and success of local, small and historically underutilized business by ensuring meaningful participation in the City's procurement process through the evaluation of MWSBE participation plans, MWSBE goal waivers, and contract specific goal analysis. Department Services also analyzes Good Faith Effort requests submitted with bids on applicable contracts for construction, professional services and purchasing contracts. The team provides training and technical guidance to City departments, prime contractors, and subcontractors alike.

Additionally, OBO shares a matrix structure with the Houston Public Works Department and Houston Airport System. In this structure, designated team members specialize as OBO liaisons within their respective departments. Advantages of a matrix structure include increased communication, flexibility, and the ability to leverage contract knowledge and industry expertise from different departments. However, it can also lead to complexities in reporting relationships, delayed decision-making, and conflicting priorities. In general, matrix structures involve multiple reporting lines, leading to complexity in decision-making and communication. This complexity can slow down processes and create confusion about roles and responsibilities regarding OBO's programs. Team members may have to balance the priorities of both functional departments and OBO. Conflicting priorities can arise, making it challenging to allocate resources effectively and meeting OBO's objectives. Accountability may also become blurred due to multiple reporting lines. Matrix staff may find it difficult to hold individuals or departments accountable for their contributions to the OBO's objectives. Balancing departmental needs with overarching MWSBE objectives is crucial but can be difficult to achieve. Additionally, the need to consult with multiple stakeholders in a matrix structure can slow down decision-making processes.

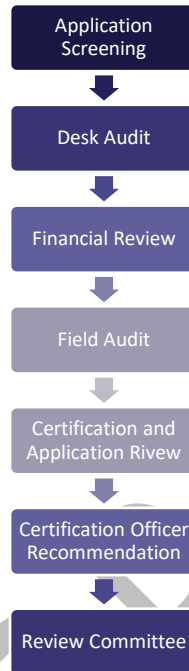
3.4.1.2 Certification

Operating and maintaining a compliant certification program is critical to OBO's ability to identify and maintain a verifiable resource pool of MWSBEs capable of meeting MWSBE goals on City contracts. MWSBE certifications are not required for a business enterprise to participate in the City contracting opportunities. However, certifications are required to receive credit for their participation on contracts that have established MWSBE participation goals.

Many MWSBE businesses use their certifications as additional marketing tools, which frequently become integral to their statement of qualifications. The OBO's certification process is well-organized, with multiple stages designed to provide a preliminary review process of application submittals. The extensive documentation required to confirm that the applicant is a viable candidate for MWSBE certification is a well-known fact in the MWSBE business community. The actual certification application is subjected to multiple review phases before approval. Any review phase can create a rejection of the application or a request for additional information.

The certification application review process is inclusive of the following phases shown in **Figure 3-3**:

FIGURE 3-3.4
CERTIFICATION APPLICATION REVIEW PROCESS



Source: Office of Business Opportunity, adapted by MGT (2023)

Although the review process is comprehensive, it is also time-consuming. The certification process and time required to become MWSBE certified have been the subject of criticism within the MWSBE community. OBO provides certification training programs and workshops to assist with the process; however, the certification process has also been a deterrent to many MWSBEs by presenting an operational business challenge for small companies to participate in the certification process.

MWSBE Goals/Pre-Bid and Pre-Award Compliance Assessment

OBO has established a decentralized goal setting process and provided procedures to ensure adherence to the MWSBE compliance standards set forth by the City during both the project's pre-bid and pre-award phases. This approach allows individual departments to specify which contracts do and do not require MWBE goals, based on both the project type in conjunction with the dollar value of said project. Departments must submit established solicitation contract goals or waiver of contract goals to OBO for review, adjustment if applicable, and final approval. Departments may request a waiver of contract goal when there are limited MWSBEs available in the market to perform the scope of work identified for the contract or the contract does not lend itself to divisibility. The contracting department has the final decision to proceed with an RCA for the award recommendation regardless of whether M/WBE goals are met. The City Council thoroughly assesses award recommendations and often seeks the expertise of OBO to ascertain why opportunities may not be divisible or have reduced MWBE goals. Although this approach can be helpful by reducing the OBO support staffing requirements, it also establishes the opportunity for inconsistencies between departments. As an additional effort to accommodate City departments, OBO provides training on goal setting, good faith efforts, goal waivers, and case studies, for individual departments to mitigate this possibility. Moreover, OBO hosts road shows where they present training focused on the requesting department's specific concerns and issues. Although OBO provides guidance

and general oversight to the departments regarding MWSBE goals and pre-award compliance monitoring requirements, OBO's direct responsibility is ensuring the City department, vendors, and subcontractors adhere to setting and meeting contract goals, and monitoring the compliance thereafter. Ultimately, OBO reviews all solicitations and makes final determinations with respect to maximizing potential MWSBE participation opportunities.

3.4.1.3 Goal Setting

The City applies MWSBE goals to City-funded contracts for construction work over \$1 million, goods, and services contracts valued over \$100,000, and professional services contracts. The following MWSBE Program requirements are designed to provide equity:

Prime Contractors that are certified MWBEs can receive credit for up to 50% of the total MWSBE goal for self-performing on the project. SBEs that are certified are not allowed to count self-performance toward MWSBE goals. This allows increased opportunities for MWBE participation in the contract.

- ◆ Participating OBO-certified SBEs cannot count toward more than 4% of the total MWSBE goal on City construction contracts. This requirement ensures that more opportunities can be provided for MWBEs to participate in the construction contract.
- ◆ Suppliers cannot count for more than 50% of the overall MWSBE goal on a contract. This requirement limits the amount of the MWSBE goal that can be met using MWSBE suppliers, thereby providing opportunities for growth and increased capacity for MWBEs offering services.
- ◆ In some cases, businesses may be certified as minority-owned, women-owned, or small businesses. Certified MWSBEs can be used to meet only one goal type (MBE, WBE, or SBE) on each project. Counting these businesses toward only one goal type prevents double or triple counting and ensures that each business is represented accurately in utilization reporting metrics. This ensures that more opportunities are provided for multiple MWSBE companies to participate in the project.

Although specific goal setting is the responsibility of various departments, OBO has established a clearly defined process that considers all aspects of goal setting. OBO understands that numerous elements can contribute to assessing how goals are determined on contracts, such as:

- ◆ The goods and/or services required,
- ◆ The North American Industry Classification System (NAICS) code of the work elements,
- ◆ The availability of MWBEs certified to perform in the work elements,
- ◆ Similar work currently ongoing in the Work Zone, and
- ◆ Historical participation in previous contracts of similar scope

3.4.1.4 Post-Award Compliance Monitoring

The Contract Compliance Division ensures meaningful participation of contractors on projects through monitoring most City contracts for the adherence to laws and regulations mandated by City, state, and federal guidelines and ordinances. The Division monitors utilization and payments to MWSBEs and DBEs

on goal-oriented and regulated construction, professional services, and goods & services contracts.¹²⁰ Prime contractors must have subcontractor agreements executed with MWSBE subcontractors and submitted to OBO for review before the project starts.

The Division's compliance monitoring activities focus on both the activities of the MWSBEs as well as that of prime contractors. OBO uses a series of meetings as opportunities to reiterate, reinforce, and clarify their MWSBE program compliance requirements to all businesses working on City contracts. The meetings include pre-bid/pre-proposal, pre-construction, and kick-off meetings for professional services or goods and services. Critical elements of the program that are discussed are:

- ◆ MWSBE Goal Participation
- ◆ Good Faith Efforts & Documentation
- ◆ MWSBE Utilization Plans
- ◆ Subcontractor Agreements
- ◆ Reporting of Subcontractor Payments
- ◆ Commercially Useful Functions (CUF) Audits
- ◆ Notices of Intent
- ◆ Compliance with Federal, State, and local laws and regulations.

The Division conducts audits on active projects to ensure that all required documents (e.g. executed subcontractor agreements and subcontractor payments) are submitted in a timely manner and compliance with the terms of the contract. The City leverages a contract compliance monitoring system, B2Gnow, to automate aspects of the audit and compliance processes. As set forth in the Code, after execution of a contract, the prime must comply with the submitted participation plan, unless it has received approval from OBO to deviate from the submitted plan.¹²¹ A formal deviation request is required to change the participation on a project that affects MWSBEs selected for goal credit. OBO reviews all complete deviation requests submitted on City projects with MWSBE goals to ensure a good faith effort was made to utilize the original MWSBEs on the participation plan and achieve the awarded MWSBE goal(s). Through this process, OBO communicates with the prime and impacted subcontractor(s) to ensure a fair transition.

OBO also provides mediation services to aid in resolving contract disputes between prime contractors and certified MWSBE subcontractors listed for goal credit on an awarded contract. Mediation is a confidential process guided by a certified and trained mediator serving as a neutral third-party to assist disputing parties, achieve and document specific, mutually agreed upon solutions found to be satisfactory to both parties. Participation in the mediation process is voluntary; however, the prime's participation, or lack thereof, will be considered in the prime contractor's final good faith efforts evaluation.

During the study period, the Contract Compliance Division's ability to perform some compliance activities was restricted by COVID-19 safety measures, which prohibited conducting site visits and in-person meetings. In alignment with other City departments, the Division pivoted to conducting meetings virtually. The Division's ability to effectively fulfill compliance activities was also impacted by a lack of sufficient

¹²⁰ The Houston Airport Systems is responsible for monitoring ACDBE compliance.

¹²¹ Houston, Texas, Code of Ordinances, section 15-85 (2023)

personnel. At present, the Division has augmented its staffing by hiring consulting firms to assist with contract compliance activities.

3.4.1.5 Contractor Performance Evaluations

Contractor performance evaluations are included in the project close-out process. The Division collaborates with City departments in the final evaluation of all City contracts. OBO initiates the project close-out process when the Department receives a notification that a project was completed. Contractors receive ratings of satisfactory or unsatisfactory based on the evaluation criteria. OBO measures contractors' performance in two primary areas:

- ◆ Post-Award Good Faith Efforts: Evaluates the contractor's performance and efforts to meet or exceed the MWSBE contract goals at completion of the contract.
- ◆ Labors standards: Evaluates the contractor's ability to clear all outstanding payment and underpayment issues before project completion.

3.4.1.6 Sanctions

The Director of OBO is authorized to recommend sanctions/suspensions for any contractor that has failed to make good faith efforts to meet any goal established.¹²² The OBO Director is also authorized to suspend any MWSBE who has failed to make a good faith effort to meet all requirements necessary for participation as an MWSBE from engaging in any contracts affected. Sanctions could prevent contractors or MWSBEs from engaging on City contracts for up to five (5) years. Sanctions and the knowledge of the possibility of contractor sanctions are deterrents of noncompliance and motivators for prime and subcontractor compliance with the MWSBE Program.

3.4.2 Resources for Doing Business within the Greater Houston Region

The OBO Solutions Center (OBOSC) is a resource center for established and aspiring entrepreneurs that provides information on city, county, state, and federal regulations affecting the operation of Houston-area businesses. OBOSC provides no-cost programs and services that help small business owners thrive in today's competitive business environment. OBOSC works closely with the University of Houston Small Business Development Center (SBDC), the U.S. Small Business Administration (SBA), the Harris County Clerk's Office, the Texas State Comptroller, the Houston Minority Business Development Agency's (MBDA) Business Center, and other agencies. OBOSC's extensive referral network includes area professional and trade organizations, business incubators, as well as educational institutions.

The Houston Small Business Legal Consultations (HSBLC) is a coordinated effort with the OBO and participating law firms providing free, holistic, focused consultations via telephone with pro bono lawyers assisting Houston area small businesses. HSBLC assists with financial assistance programs, taxes, commercial leases, contracts, employment, intellectual property, and other general business issues. Small businesses, self-employed entrepreneurs, and nonprofits are eligible for HSBLC services.

Build Up Houston integrates classroom learning with practical case studies, emphasizing the significance of business experience. The program is specifically tailored toward businesses who are seeking assistance

¹²² Houston, Texas, Code of Ordinances, section 15-86 (2023)

to grow and have either worked on City projects or with other agencies. Participants were provided with tools and knowledge to help achieve their growth goals. Topics include business development strategies, strategic planning, estimating and bidding, finance, bonding and insurance, marketing and sales, human resources, accessing capital, government contracts, and project management.

The Pillars for Success (Pillars) is a new business development initiative facilitated by OBO which leverages the Blue Wave Supplier Development Program. This program, accessible to businesses across various industries, aims to positively impact small businesses in the Houston area. Pillars focuses on fostering business growth by aiding entrepreneurs in expanding their business scope and vision, accessing new markets, strengthening supply chains, enhancing visibility, recruiting qualified staff, and fostering collaboration with key stakeholders. The program provides comprehensive coverage of the following seven pillars: Health, Safety, Security, and Environment (HSSE), Cyber-Security, Quality, Corporate Policies, Finance, Technical Capabilities, and Environmental, Social, and Governance (ESG). With its foundation built on these pillars, the program employs a combination of practical workshops, self-assessments, coaching services, industry expertise, and collaboration with business peers to deliver tangible outcomes. Participants must commit to completing all required assignments and attending 12 sessions within a six-month period.

In partnership with the Metropolitan Transit Authority of Harris County, Houston Independent School District, Port Houston, Houston Community College, and Harris Health System, OBO's Interagency Mentor Protege Program (IMPP) provides small, women-owned, veteran-owned, minority-owned and disadvantaged business enterprises an opportunity to be mentored by established firms. Participants attend weekly workshops over the span of ten weeks and learn about topics such as doing business government entities, back-office functions, and proposal development. In addition to the mentorship, proteges are provided tailored technical assistance aimed at enhancing business growth and capacity.

3.4.3 MWSBE Program Observations

OBO uses a decentralized organization process to operate and manage its MWSBE programs. This approach allows each City department to establish its own MWSBE goals for its procurement opportunities independently, with final review and approval by OBO. The individual departments are also responsible for reviewing utilization plans during the bidding process, making recommendations to the City Council for selection based on meeting the MWSBE procurement goals, and day-to-day monitoring of the utilization of MWSBEs to confirm progress toward meeting goals. As discussed throughout this chapter, there are ample regulations and policies in place for procurement and contracting and MWSBE participation.

Throughout most of MGT's meetings with the City staff, it was apparent that participation of minority, women, and small business enterprises is an important priority. Where applicable, staff also discussed aspects of DBE/ACDBE participation. OBO serves in an advisory capacity for City departments by providing training on all aspects of the MWSBE program. Staff expressed enhanced collaboration with OBO as beneficial throughout the entire source to pay process.

The following summarizes MGT's review of the City's procurement policies and OBO's policies and procedures designed to ensure department, contractor, and subcontractor adherence to relevant program policies and contract terms.

- ◆ Although the decentralized organization approach appears effective, it also allows for the possibility of inconsistencies and variances between departments regarding the interpretation, commitment, and execution of the MWSBE Code, and program requirements. Staff comments also revealed an emphasis on ensuring policies and procedures are applied fairly and consistently followed. OBO's Department Services hosts several training sessions throughout the year. At least twice a year, the Department Services Training Institute is held. The Institutes are well attended by City staff and includes topics related to both pre-and post-award compliance. Requiring refresher training for individuals responsible for procurement and contracting activities at prescribed intervals may help to mitigate these concerns.
- ◆ The City's MWSBE goal-setting processes for individual procurement opportunities are well documented and respond to various types of procurements. Staff shared a desire for additional guidance on goal setting for goods and services projects which have been a source for either non-divisible contracts or increased deviation requests. The City may benefit from assessing the types of goods and services identified within a single procurement category or the combination of goods and services in a singular procurement category.
- ◆ OBO is aware of the challenges with its certification processes and procedures, especially regarding the required certification timeline. Although the certification process thoroughly verifies a business' eligibility for certification, the review required by certification staff is time-consuming. The process has often been delayed due to applicants' failure to submit completed applications that include all the required support documents. Exploring opportunities and systems to shorten the certification process and make it less cumbersome for MWSBEs could increase ready, willing, and able businesses certified in the program. Augmenting staffing through the use of consultants would assist in alleviating the workload.
- ◆ OBO's contract compliance procedures are robust and facilitate adherence to the City's Code and policies regarding MWSBE participation. If vendors deem the process difficult, they may look for ways to circumvent it, particularly during pre-award or post-award. During bid submission, vendors may list MWSBE firms for the sake of meeting goals without the MWSBEs knowledge. Vendors have also delayed MWSBE deviation requests until the contract closeout process. Ongoing regular audits and frequent communication with the City's project manager may identify early trends of potential deviations if MWSBEs are not used by their estimated period of performance.
- ◆ Administering compliance with contracts used by multiple departments can be challenging. When contracts are managed by various departments, it can lead to fragmented oversight. Limited resources or differing priorities between departments might impede the effectiveness of MWSBE compliance efforts. Centralized oversight with collaboration between all user departments of such contracts would aid in understanding opportunities.
- ◆ Participation in the City's procurement can be a powerful tool in encouraging the growth and development of small and local firms. Some departments have piloted programs to provide opportunities for small businesses. The programs have seen success with various

firms participating. The City may benefit from implementing a bidder rotation program across multiple departments.

- ◆ OBO's contract compliance system, B2Gnow, is an essential tool used by OBO to track participation on City contracts. The system provides automated communication with contractors via email or B2Gnow regarding compliance or reporting matters. Although this tool has streamlined some processes, further enhancements are needed to fully integrate with the City's financial system, SAP, and eliminate workarounds. Currently, not all City purchasing records are visible in B2Gnow, including contracts that result from a Request for Action (RCA) approval. RCA approvals represent contracts valued over \$50,000. Based on this threshold, such contracts may have the greatest opportunity for subcontractor participation. There is currently no system automation for contracts to enter B2Gnow. OBO staff must manually enter contract records creating challenges that impact operational efficiency and data accuracy. Due to manual verification and entry, there is a lapse in time between when a contract is approved and when its visible B2Gnow. Despite SAP containing a list of executed contracts and purchase orders, the City lacks the technological capability to compare it with B2Gnow, resulting in difficulties identifying missing data. OBO loses valuable time to initiate compliance processes including reviewing of labor standards, conducting proactive audits on contracts, and tracking real-time progress of prime contract goal attainment due to the technology gaps.
- ◆ Currently, City policies do not include specific prompt payment mandates. Staff suggested that the only requirement is that MWSBEs must be "paid in a reasonable amount of time". The City may benefit from implementing a subcontractor prompt payment clause in its contracts or as part of its policies. For example, the Texas Government Code requires that vendors "who receive a payment from a governmental entity shall pay their subcontractors the appropriate share of the payment not later than the 10th day after the date the vendor receives the payment."¹²³ The enforcement of this clause would require the appropriate technology to ensure payment data is imported into B2Gnow from SAP and that the appropriate fields capture the date subcontractors receive payment.

3.5 Conclusions

MGT's policy review focused on procurement and OBO policies, procedures, and practices that facilitate the participation of MWSBEs in procurement and contracting. MGT's review shows that the City of Houston has detailed policies and procedures that govern all aspects of procurement. Based on MGT's review, policy source documents provide ample guidance to department end users and vendors seeking procurement opportunities. The City has policies in place to facilitate opportunities for MWSBEs to engage in procurement and contracting activities.

The review conducted by MGT underscores that equity and access to contracting opportunities must be an organization-wide responsibility and not solely the responsibility of OBO. MGT noted that there are strong positive collaborative relationships between departments and OBO. The City's departments operate with a growth mindset and desire for continuous improvement. Hence, as previously discussed, opportunities exist to further enhance the MWSBE program as feasible, based on Study results. The

¹²³ TX Govt Code § 2251.022 (2023)

overall impact of the policies and procedures on the vendor community can only be made in conjunction with the statistical and qualitative evidence contained in Chapters 4, 5, and 7 of this report. Collectively, the findings will be used to identify selected practices and make recommendations to the City.

FINAL DRAFT

4 Market Area and Availability Analysis

4.1 Introduction

The market area analysis is essential to establishing the universe of available vendors and spending that will be considered in the identification of any disparate treatment of assorted classifications of firms. Availability is a measure of the numbers and proportions of vendors willing and able to work with an agency, while disparity is an observed statistically significant difference between the utilization of minority- and women-owned firms relative to their respective availability.

Chapter Sections

- 4.1 Introduction
- 4.2 Data Collection and Management
- 4.3 Market Area Analysis
- 4.4 Availability Estimations
- 4.5 Conclusions

This chapter presents the results of the relevant geographic market area and availability estimates analyses of firms willing and able to do business in the market area. The specific procurement categories analyzed were Construction, Professional Services, Other Services, Goods, and Airport Concessions.

4.2 Data Collection and Management

MGT began the data-collecting process by understanding if the City maintained awards information or payment information. Awards data is the presumed amount to be paid to a vendor based on the contract or purchase order amount. However, during the course of the procurement, the work or order could be cancelled, or contract amount adjusted. At the onset of the study, MGT submitted a detailed data query to the City. The data query asked for descriptive information regarding prime- and subcontractor-level contracting data. Based on the data query and the subsequent data provided, MGT assessed the prime and subcontractor records using payment data to determine its use in the Study.

MGT staff compiled and reconciled electronic data provided by the City to develop a master set of prime and subcontractor contract and purchase order data into a Master Utilization Database to support the needs of the Study. MGT utilized the City's financial data from SAP as the source of prime data, and OBO's contract compliance system, B2Gnow, as a baseline for subcontractor information. During the data assessment process, MGT noted that a substantial number of contracts and purchase orders were missing from B2Gnow. MGT used a two-step process to verify and collect subcontractor information. First, MGT, with the assistance of OBO, contacted departments for assistance in verifying whether such contracts or purchase orders existed in B2Gnow under an alternate ID or if contractors supplied subcontractor information directly to the department. This process was helpful in matching some contract and purchase order records to B2Gnow; however, a considerable amount of information was still missing.

Next, MGT administered a survey directly to prime contractors. OBO and other City departments provided assistance contacting firms who were nonresponsive to MGT's request. The prime survey included the attempt to gather subcontractor demographic and payment data that did not exist in B2Gnow. After creating the master database of prime contracts, MGT identified contracts above \$100,000 contracts because of an increased likelihood of such purchases having subcontracting opportunities. MGT selected a sample of contracts which would be targeted for subcontractor collection. MGT sampled the largest contracts with certainty and randomly sampled the smaller projects valued less than \$50,000. A portion

of the existing subcontractor data in B2Gnow was combined with the subcontractor data collected via prime survey. Based on a common contract ID across all data sets, MGT merged the subcontractor data with the prime data to make the Master Utilization Database.

4.2.1 Study Period

The preliminary market area analysis is based on contract transactions during July 1, 2017, through June 30, 2022 (FY18-FY22).

4.2.2 Procurement Categories and Exclusions

MGT analyzed the procurement categories competitively bid by the City, encompassing five sectors: Construction, Professional Services, Other Services, Goods, and Airport Concessions. These procurement categories are defined as:

- ◆ Construction: Services provided for the construction, renovation, rehabilitation, repair, alteration, improvement, demolition, and excavation of physical structures, excluding the performance of routine maintenance.
- ◆ Professional Services: Services that contemplate labor and skill that are predominantly mental or intellectual rather than physical or manual and includes services of members of disciplines requiring special knowledge or attainment and a high order of learning, skill, and intelligence. This category also includes architecture & engineering, which are services related explicitly to preparing plans and specifications for construction projects.
- ◆ Other Services: This category includes all services that do not typically require a provider to have experience in a specialized field or hold an advanced degree.
- ◆ Goods: This category includes all purchases of physical items, including but not limited to equipment and materials, excluding land or a permanent interest in land.
- ◆ Airport Concessions: A business, located on an airport, subject to 49 CFR 23, that is engaged in the sale of consumer goods or services to the public under an agreement with the recipient, another concessionaire, or the owner or lessee of a terminal, if other than the recipient. Rental cars are not included in the analysis.

The close examination of the data, transactions that were excluded from the analysis if they fell into categories such as:

- ◆ Transactions outside of the Study period.
- ◆ Transactions associated with non-procurement activities, for example:
 - Administrative items such as utility payments, leases for real estate, or insurance.
 - Salary and fringe benefits, training, parking, or conference fees.
- ◆ Transactions associated with nonprofit organizations and governmental agencies.

- ◆ Purchases funded by grants or emergency purchases such as COVID-related expenditures.¹²⁴

4.2.3 Classification of Firms

Firms included in the utilization analysis have been assigned to business owner classifications according to the definitions provided below.¹²⁵

- ◆ **M/WBE Firms.** In this Study, businesses classified as minority- and women-owned firms (M/WBE) are firms that are at least 51 percent owned and controlled by members of one of six groups: Black Americans, Hispanic Americans, Asian Pacific Americans, Native Americans, Subcontinent Asian Americans, or non-minority women. These groups were defined according to the United States (U.S.) Census Bureau as follows:
 - **Black Americans:** U.S. citizens or lawfully admitted permanent residents having an origin in any of the black racial groups of Africa.
 - **Hispanic Americans:** U.S. citizens or lawfully admitted permanent residents of Mexican, Puerto Rican, Cuban, Central, or South American, or other Spanish or Portuguese cultures or origins regardless of race.
 - **Asian Americans:** U.S. citizens or lawfully admitted permanent residents who originate from the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
 - **Native Americans:** U.S. citizens or lawfully admitted permanent residents who originate from any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition.
 - **Subcontinent Asian American:** U.S. citizens or lawfully admitted permanent residents who originate from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - **Nonminority Women:** U.S. citizens or lawfully admitted permanent residents who are non-Hispanic white women. Minority women were included in their respective minority category.
 - Minority women - and male-owned firms are classified and assigned to their corresponding minority groups. For example, a Hispanic American women- or Hispanic American male-owned firm was assigned to the Hispanic American-owned firm minority group.
- ◆ **MBE Firms.** All minority-owned firms, regardless of gender.
- ◆ **WBE Firms.** All nonminority women-owned firms.
- ◆ **Certified Disadvantaged Business Enterprise (DBE) Firms.** Are businesses certified by Texas Unified Certification Program (TUCP) and as defined in 49 C.F.R. Part 26, are for-profit small business concerns where socially and economically disadvantaged individuals own at least a 51% interest and also control management and daily business operations. Since the Federal DBE Program requires the City to track the utilization of certified DBE firms, MGT staff also conducted separate utilization analyses on certified DBE firms. However, it should be noted that MGT does

¹²⁴ COVID-19 related expenditures were one-time or short-term expenses incurred to respond to the pandemic. The inclusion of such spend may have distorted the true picture of the City's regular spending patterns.

¹²⁵ Business ownership classification was based on the race, ethnicity, and gender classification of the owner during the study period.

not conduct availability or disparity analyses separately for certified DBE firms and, therefore, is not presented in this study.

- ◆ **Airport Concession Disadvantaged Business Enterprise (ACDBE).** As defined in 49 C.F.R. Part 23, are Disadvantaged Business Enterprise participating in the Federal Aviation Administration’s (FAA) ACDBE Program. MGT staff also conducted separate utilization analyses on certified ACDBE firms. However, it should be noted that MGT does not conduct availability or disparity analyses separately for certified ACDBE firms and, therefore, is not presented in this study.
- ◆ **Non-DBE/ACDBE Certified Firms.** When MGT examined the utilization of certified DBE/ACDBE firms, firms that were identified as not being certified as a DBE/ACDBE were classified as non-DBE/ACDBE certified firms.
- ◆ **Unclassified Firms.** Firms that are identified as nonminority male-owned, majority-owned, or for which business ownership classification could not be determined, were classified as unclassified firms.
- ◆ **Small Business Enterprise (SBE).** Firms whose gross revenues or number of employees, averaged of the past three years, inclusive of any affiliates as defined by 13 CFR Section 121.103, does not exceed the size standards defined in Section 3 of the Federal Small Business Act and applicable Small Business Administration regulations related to the size standards found in 13 CFR Part 121.
- ◆ **Person with Disability-Owned Business Enterprise (PDBE).** Firms that are at least 51 percent owned, controlled, and managed by one or more persons with a disability¹²⁶.
- ◆ **Veteran-Owned Firms (VOBE).** Firms that are at least 51 percent owned, controlled, and managed by one or more veterans from a branch of the U.S. Armed Services.

Federal Funding. The federal government requires state and local agencies to implement a Federal DBE Program if they receive U.S. DOT funds for transportation projects from the Federal Highway Administration (FHWA), the Federal Aviation Administration (FAA), or the Federal Transit Administration (FTA). The City of Houston is a subrecipient of funding from these entities and therefore, federally funded transportation projects were also analyzed in this study.

¹²⁶ Houston, TX Code Section 15-91

4.3 Market Area Analysis

As prescribed by *Croson* and subsequent cases, a disparity study requires definition of a market area to ensure that a relevant pool of vendors is considered in analyzing the availability and utilization of firms. In *Croson* for example, the Court explained that the city of Richmond’s MBE goal “rest[ed] upon the completely unrealistic assumption that minorities will choose a particular trade in lockstep proportion to their representation in the local population.”¹²⁷ In *Coral Construction*, the Court went further to clarify that a DBE (or MBE) program must limit its geographical scope to the boundaries of the enacting jurisdiction.¹²⁸

If these boundaries are stretched too far, the universe of vendors becomes diluted with firms with no interest or history in working with the governmental entity, and thus their demographics and experiences have little relevance to actual contracting activity or policy. On the other hand, a boundary set too narrowly risks the opposite circumstance of excluding a high proportion of firms who have contracted with, or bid for work with, the governmental entity, and thus may also skew the prospective analyses of disparity.

4.3.1 Methodology

Based on *Croson* guidelines, the City should include in its relevant market area the geographic areas from which most of its purchases are procured. MGT recommends using counties as the geographic unit of measurement by which the relevant market area is established. The choice of counties as the unit of measurement is based on the following: 1) the courts have accepted counties as a standard geographical unit of analysis in conducting equal employment and disparity analyses; 2) county boundaries are externally determined and, hence, are free from any researcher bias that might result from any arbitrary determinations of boundaries of geographical units of analysis; 3) U.S. Census data and other federal and county data are routinely collected and reported using county boundaries. The following presents the methodology used to determine the overall market area and relevant market area.

- ◆
- ◆ **Overall Market Area.** To determine the full extent of the market area in which the City utilized firms, MGT staff determined geographic locations of utilized vendors by their county jurisdictions. The overall market area presents the total dollars awarded for each procurement category included within the scope of the Study. The overall market area results by procurement category are presented in **Section 4.3.2** of this chapter.
- ◆ **Relevant Market Area.** Once the overall market area was established, the relevant

City of Houston Relevant Market Area	
Austin County, TX	Galveston County, TX
Brazoria County, TX	Harris County, TX
Chambers County, TX	Liberty County, TX
Fort Bend County, TX	Montgomery County, TX
Waller County, TX	

¹²⁷ *Western States Paving*, 407 F.3d at 995.

¹²⁸ *Coral Construction*, 941 F.2d at 925.

market area was determined by examining geographic areas from which most of its purchases are procured. Based on the results of the market area analysis conducted for each business category, the recommended relevant market area is the nine counties within the Houston-The Woodlands-Sugar Land, TX Metropolitan Statistical Area (MSA).

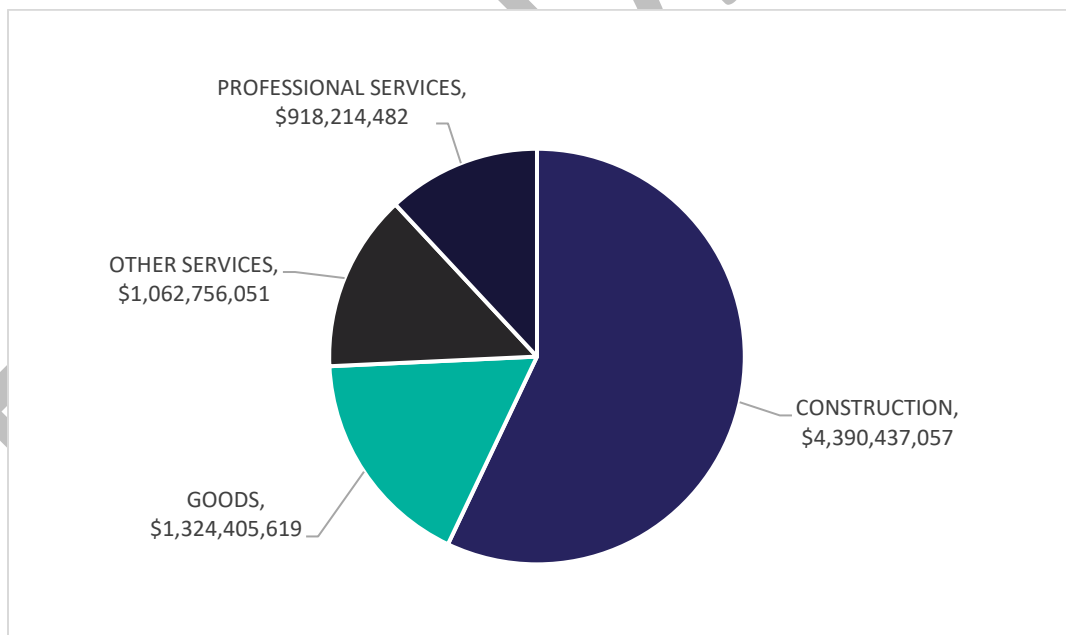
The dollars paid to each vendor were summarized by county according to the location of each firm and by the services they provided to the City: Construction, Professional Services, Other Services, Goods, and Airport Concessions. The corresponding market area analyses showing the dollars paid by county within each procurement category are presented in **Appendix B, Detailed Market Area Analysis**.

4.3.2 Analysis and Identification of Relevant Market Area

As described in the preceding section, an overall market area was first established to account for all relevant City payments, after which more specific regions were analyzed to arrive at a relevant market area to support the goals of the Study. Detailed information supporting this market area analyses are presented in **Appendix B, Detailed Market Area Analysis** to this report.

Figure 4-1 shows \$7,695,813,209.82 paid to firms (prime and subcontractors) located within the overall market area between July 1, 2017, through June 30, 2022.

FIGURE 4-1. SUMMARY OF DOLLARS,
TOTAL CONTRACTS (PAID) BY PROCUREMENT CATEGORY,
OVERALL MARKET AREA



Source: MGT developed a Master Utilization Database based on City's financial system between Fiscal Years July 1, 2017, through June 30, 2022.

Table 4-1 represents firms located within geographic boundaries of the City referred to as the relevant market area. The analysis identified firms located with the Houston-The Woodlands-Sugar Land, TX MSA

accounted for 77.1 percent of spend across all procurement categories. When analyzed by procurement categories, firms located within the relevant market area accounted for:

- ◆ 88.09 percent of the dollars spent in Construction;
- ◆ 65.18 percent of the dollars spent in Professional Services;
- ◆ 66.84 percent of the dollars spent in Other Services; and
- ◆ 56.93 percent of the dollars spent in Goods.

TABLE 4-1. MARKET AREA ANALYSIS,
DISTRIBUTION OF DOLLARS BY BUSINESS CATEGORY,
CITY OF HOUSTON MARKET AREA

CONSTRUCTION	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$3,867,591,571.43	88.09%
Outside City of Houston RGMA	\$522,845,485.83	11.91%
CONSTRUCTION, TOTAL	\$4,390,437,057.26	100.00%
PROFESSIONAL SERVICES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$598,499,250.13	65.18%
Outside City of Houston RGMA	\$319,715,232.25	34.82%
PROFESSIONAL SERVICES, TOTAL	\$918,214,482.38	100.00%
OTHER SERVICES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$710,394,686.75	66.84%
Outside City of Houston RGMA	\$352,361,363.93	33.16%
OTHER SERVICES, TOTAL	\$1,062,756,050.68	100.00%
GOODS	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$754,023,588.15	56.93%
Outside City of Houston RGMA	\$570,382,031.35	43.07%
GOODS, TOTAL	\$1,324,405,619.50	100.00%
ALL BUSINESS CATEGORIES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$5,930,509,096.46	77.1%
Outside City of Houston RGMA	\$1,765,304,113.36	22.9%
ALL BUSINESS CATEGORIES, TOTAL	\$7,695,813,209.82	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

4.4 Availability Estimations

Included in the sections that follow are descriptions of the approach and methodology used by MGT to estimate availability followed by the results of the data collection and estimation process.

4.4.1 Availability Methodology

As noted in **Chapter 2**, the Supreme Court stated in *Croson* 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 actually engaged by the locality or the locality’s prime contractors, an inference of discriminatory exclusion could arise.”

Availability is defined by courts as whether a firm is **willing and able** to work with the agency in question, as a method of constructing the universe of firms that might be considered in that agency’s procurement activities. Due to the statistical limitations of deriving a vendor’s ability, MGT will concentrate on the willingness of the vendors and not adjust availability due to capacity.

- ♦ **Willing** is reasonably presumed via the vendors’ active pursuit of registration to work with any public (government) agency, which drives the scope of identification for the sources of available firms considered.
- ♦ **Able**, or capability to perform work, is more loosely defined due to two obscuring factors: (1) the scalable nature of firms, who may reasonably add capacity to handle jobs beyond previous performance, and (2) the inherent concern that discrimination may have influenced the historic or existing scale of operation of the firms within the market. Therefore, the only confining measure of “ability” used to cull the universe of available vendors is that they have some presence within the defined market area.

Thus, a reliable estimation of the number of firms *willing* and *able* to provide each of the respective services under the scope of examination is an element in the determination of disparity. Post-*Croson* case law has not prescribed a single, particular approach to deriving vendor availability, and agencies have used a variety of means to estimate pools of available vendors that have withstood legal scrutiny; however, among the array of methods utilized, what is known as a “custom census” has received favorable endorsement. A custom census is characterized as a survey of a representative sample of firms offering the procured products and services within an organization’s relevant market area to determine an estimate of the prospective *universe* of vendors.

MGT’s data assessment and evaluation of alternative methods for measuring the numbers of firms of the types and classifications available to work with the City confirmed that a version of a custom census of firms in the relevant market area would provide the most accurate representation of available firms. The custom census approach used by MGT in this instance required development of representative samples of firms within each of the six procurement categories identified for the Study, each of which had to cover the defined nine-county geographic boundaries of the relevant market area.

First, an intensive examination of the City’s procurements was required to define the appropriate characteristics of the universe of prospective vendors, in terms of the types of products and services offered. The City procurements were assigned North American Industry Classification System (NAICS) codes that Dun & Bradstreet uses to classify firms’ primary lines of business. These industry selections were then used to establish weighting criteria to be used in random selections of vendors to be surveyed. Target response thresholds were established for each industry subsector to ensure a 95 percent confidence interval and +/-5 percent margin of error for findings. Second, a survey was designed and administered to sampled firms by telephone and email to (1) determine and/or validate the race, ethnicity, and gender of ownership as well as (2) to elicit these representative firms’ interest in working with the City.

Results of the survey were then extrapolated to the full scale of the applicable universe to arrive at an estimation of available firms by ethnicity/gender classification and procurement category.

4.4.2 Availability Analysis

Following the methodology prescribed in the previous section, MGT derived estimates for proportions of available firms for the racial, ethnic, and gender ownership classes and four defined procurement categories. Detailed corresponding analyses showing the availability of firms by race, ethnicity, and gender are presented in **Appendix C, Utilization, Availability, and Disparity by NAICS Codes**.

Table 4-2 presents availability estimates spanning across all procurement categories, in aggregate. The estimates conclude that MWBE availability is approximately 1/3 of the total availability in the marketplace. It is important to note that the availability is based on the types of goods and services that the City procures and firms that provide said goods and services. We observe that Hispanic American firms make up over 13 percent of the total MWBE availability.

TABLE 4-2.
ESTIMATION OF AVAILABLE FIRMS, ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	7.70%
Hispanic Americans	13.17%
Asian Americans	3.77%
Native Americans	1.11%
Total MBE Firms	25.75%
Nonminority Women	8.04%
Total M/WBE Firms	33.80%
Unclassified Firms	66.20%

Source: Custom Census Analysis. Study Period: July 1, 2017, through June 30, 2022.

Subcontinent Asian Americans are grouped with Asian American classification.

Tables 4-3 through 4-7 provide the availability estimates for each procurement category analyzed. MWBE availability estimates vary by category. As shown in the tables, Hispanic Americans make up 15.60 percent availability in Construction and 17.40 percent in Other Services. African Americans make up 14.55 percent availability in Professional Services, and MWBE availability estimates are in close ranges of all business ownership classifications in Goods.

TABLE 4-3.
ESTIMATION OF AVAILABLE FIRMS, **CONSTRUCTION**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	6.52%
Hispanic Americans	15.60%
Asian-Pacific Americans	2.54%
Native Americans	0.84%
Total MBE Firms	25.50%
Nonminority Women	6.28%
Total M/WBE Firms	31.78%
Unclassified Firms	68.22%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.
Subcontinent Asian Americans are grouped with Asian American classification.

TABLE 4-4.
ESTIMATION OF AVAILABLE FIRMS, **PROFESSIONAL SERVICES**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	14.55%
Hispanic Americans	7.00%
Asian Americans	5.89%
Native Americans	2.65%
Total MBE Firms	30.09%
Nonminority Women	11.26%
Total M/WBE Firms	41.35%
Unclassified Firms	58.61%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.
Subcontinent Asian Americans are grouped with Asian American classification.

TABLE 4-5.
ESTIMATION OF AVAILABLE FIRMS, **OTHER SERVICES**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	9.30%
Hispanic Americans	17.40%
Asian Americans	5.61%
Native Americans	1.40%
Total MBE Firms	33.71%
Nonminority Women	12.26%
Total M/WBE Firms	45.97%
Unclassified Firms	54.03%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.
Subcontinent Asian Americans are grouped with Asian American classification.

TABLE 4-6.
ESTIMATION OF AVAILABLE FIRMS, **GOODS**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	5.61%
Hispanic Americans	6.00%
Asian Americans	4.89%
Native Americans	0.70%
Total MBE Firms	17.20%
Nonminority Women	8.27%
Total M/WBE Firms	25.47%
Unclassified Firms	74.53%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.
Subcontinent Asian Americans are grouped with Asian American classification.

Availability for federally funded transportation projects is displayed below in **Table 4-8** and **Table 4-8**. Availability for **Airport Concessions (Table 4-7)**, was based on the types of concessions contracted with the Houston Airport Systems during the study period, separated further into the categories of Food & Beverage, Miscellaneous, and Retail. The availability estimates illustrate that Black Americans (22.44%) make up the greatest percentage of available firms for airport concession opportunities.

TABLE 4-7.
ESTIMATION OF AVAILABLE FIRMS, AIRPORT CONCESSIONS

BUSINESS OWNERSHIP CLASSIFICATION	FOOD & BEVERAGE	MISCELLANEOUS	RETAIL	TOTAL
Black Americans	23.82%	18.91%	26.64%	22.44%
Hispanic Americans	10.69%	14.20%	6.73%	11.39%
Asian Americans	9.49%	11.65%	12.81%	10.19%
Native Americans	0.74%	0.65%	0.00%	0.67%
Nonminority Women	12.28%	7.60%	12.95%	10.93%
Total M/W/ACDBE Firms	57.02%	53.01%	59.13%	55.62%
Unclassified Firms	42.98%	46.99%	40.87%	43.68%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.

Subcontinent Asian Americans are grouped with Asian American classification.

Due to rounding the total may not equal 100.

The following availability estimates for additional federally funded transportation projects are presented in three procurement categories for which the City had expenditures during the study period. The availability estimates illustrate that Hispanic Americans made up the greatest percentage of available firms (25.11%) for these projects. However, within the Goods category, Asian American firms account for nearly three out of four firms.

TABLE 4-8.
ESTIMATION OF AVAILABLE FIRMS BY PROCUREMENT CATEGORY
FEDERALLY FUNDED TRANSPORTATION PROJECTS

BUSINESS OWNERSHIP CLASSIFICATION	CONSTRUCTION	OTHER SERVICES	GOODS	TOTAL
Black Americans	8.53%	20.74%	10.95%	8.96%
Hispanic Americans	26.24%	24.58%	1.30%	25.11%
Asian Americans	2.69%	0.04%	74.30%	5.74%
Native Americans	1.69%	2.23%	0.00%	1.63%
Nonminority Women	10.25%	6.39%	3.93%	9.87%
Total M/W/DBE Firms	49.39%	53.98%	90.49%	51.30%
Unclassified Firms	50.61%	46.02%	9.51%	48.70%

Source: Custom Census Analysis. Study Period: July 1, 2017 through June 30, 2022.

Subcontinent Asian Americans are grouped with Asian American classification.

4.5 Market Area Conclusions

Based on the market area analysis of the City's procurement activity it was determined that nine counties should be used as the market area. This 9-County Market Area represents a majority of the City's procurement activity, with 77.1 percent of the payments to vendors within this market area. Individually all the categories represent a majority of the City's procurement activity within the corresponding categories. Construction having the highest spend in the market area with 88.09 percent of payments; and Goods with the smallest at 56.93 percent. The definition of the relevant market area allows for detailed examinations of contracting activity with local vendors. The following chapter describes the results of this utilization analysis for the City.

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5 Product Market, Utilization, and Disparity Analyses

5.1 Introduction

This chapter presents the results of MGT’s analyses regarding the **product market, utilization, and disparity**. Utilization data are central to defining this market area and thus are first presented as a means of identifying the market area for consideration, and then are examined within that market area to assess assorted levels of contracting activity as the first step in the quantitative determination of disparity. Consistent with prior chapters, this analysis focuses on procurements in the categories of Construction, Professional Services, Goods, Other Services, and Airport Concessions.

Chapter Sections	
5.1	Introduction
5.2	Utilization Analysis
5.3	Disparity Analyses and Significance Testing
5.4	Conclusions

5.2 Analysis and Identification of Product Market

Based on the major categories and description of work on each contract, MGT assigned NAICS codes to each transaction based on the description of what was purchased for both primes and subcontractors. MGT assigned both NAICS code industry groups (4-digit level) and NAICS code industries (6-digit level). **Table 5-1** through **Table 5-6** show the payments and their associated weights for Construction, Professional Services, Other Services, Goods, and Airport Concessions. **Appendix A, Detailed Product Market Analysis** shows the NAICS code industries (6-digit level) for the four procurement categories.

Overall, City procurements occur in **243** NAICS industry groups. In Construction, City procurements occur in **74** NAICS industry groups. In Professional Services, City procurements occur in **82** NAICS industry groups. Within Other Services, City procurements occur in **105** NAICS industry groups. In Goods, City procurements occur in **137** NAICS industry groups. In Airport Concessions, City procurements occur in 59 NAICS industry groups.

Table 5-1 shows that for Construction, the top five NAICS codes make up 74.02 percent or \$3,210,243,659.56 of the total utilization and are distributed among the industry groups 2371, 2362, 2373, 2382, and 2379.

TABLE 5-1. SUMMARY OF DOLLARS,
TOP 5 NAICS CODES,
CONSTRUCTION

NAICS CODE	NAICS DESCRIPTION	AMOUNT	NAICS WEIGHT
237110	Water and Sewer Line and Related Structures Construction	\$1,191,477,386.90	34.99%
236220	Commercial and Institutional Building Construction	\$1,089,826,825.59	6.85%
237310	Highway, Street, and Bridge Construction	\$609,080,291.66	5.99%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$174,013,986.94	5.21%
237990	Other Heavy and Civil Engineering Construction	\$145,845,168.47	4.66%

Source: MGT developed a Master Utilization Database based on City's spending between July 1, 2017, through June 30, 2022.

For Professional Services, **Table 5-2** shows the top five NAICS codes make up 57.71 percent or \$529,888,348.20 of the total utilization and are distributed among the industry groups 5413, 5416, 5191, 5415, and 4234.

TABLE 5-2. SUMMARY OF DOLLARS, TOP 5 NAICS CODES,
PROFESSIONAL SERVICES

NAICS CODE	NAICS DESCRIPTION	AMOUNT	NAICS WEIGHT
541330	Engineering Services	\$321,313,315.16	34.99%
541620	Environmental Consulting Services	\$62,910,790.19	6.85%
519190	All Other Information Services	\$55,014,029.13	5.99%
541512	Computer Systems Design Services	\$47,824,947.94	5.21%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$42,825,265.78	4.66%

Source: MGT developed a Master Utilization Database based on City's spending between July 1, 2017, through June 30, 2022.

For Other Services, **Table 5-3** shows the top five NAICS codes make up 41.62 percent or \$429,877,467.33 of the total utilization and are distributed among the industry groups 4842, 5611, 5621, 4881, and 8113.

TABLE 5-3. SUMMARY OF DOLLARS,
TOP 5 NAICS CODES,
OTHER SERVICES

NAICS CODE	NAICS DESCRIPTION	AMOUNT	NAICS WEIGHT
484220	Specialized Freight (except Used Goods) Trucking, Local	\$125,526,046.82	12.15%
561110	Office Administrative Services	\$83,468,426.05	8.08%
562111	Solid Waste Collection	\$81,263,313.29	7.87%
488190	Other Support Activities for Air Transportation	\$73,629,258.86	7.13%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$65,990,422.31	6.39%

Source: MGT developed a Master Utilization Database based on City's spending between July 1, 2017, through June 30, 2022.

For Goods, **Table 5-4** shows the top five NAICS codes make up 38.17 percent or \$505,568,809.52 of the total utilization and are distributed among the industry groups 4411, 4238, 4246, 4247, and 4543.

TABLE 5-4. SUMMARY OF DOLLARS,
TOP 5 NAICS CODES,
GOODS

NAICS CODE	NAICS DESCRIPTION	AMOUNT	NAICS WEIGHT
441110	New Car Dealers	\$162,490,894.07	12.27%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$115,045,816.27	8.69%
424690	Other Chemical and Allied Products Merchant Wholesalers	\$103,586,144.86	7.82%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$76,475,532.40	5.77%
454310	Fuel Dealers	\$47,970,421.92	3.62%

Source: MGT developed a Master Utilization Database based on City's spending between July 1, 2017, through June 30, 2022.

For Airport Concessions, **Table 5-5** shows the top five NAICS codes make up 77.48 percent or \$1,169,367,841.25 of the total utilization and are distributed among the industry groups 7225, 7223, 4523, and 5611.

TABLE 5-5. SUMMARY OF DOLLARS,
TOP 5 NAICS CODES,
AIRPORT CONCESSIONS

NAICS CODE	NAICS DESCRIPTION	AMOUNT	NAICS WEIGHT
722513	Limited-Service Restaurants	\$448,697,740.12	29.73%
722310	Food Service Contractors	\$385,908,487.19	25.57%
452319	All Other General Merchandise Stores	\$209,145,638.39	13.86%
722511	Full-Service Restaurants	\$70,549,051.33	4.67%
561110	Office Administrative Services	\$55,066,924.22	3.65%

Source: MGT developed a Master Utilization Database based on City's spending between July 1, 2017, through June 30, 2022.

5.3 Utilization Analysis

The utilization analysis presents a summary of payments within the scope of the Study and an initial assessment of the effectiveness of initiatives in promoting the inclusion of M/WBEs in the City's contracting and procurement activities.

The utilization analysis is based on the defined relevant market area, as described in the preceding sections of this chapter. The payments data included within this analysis encompass both (1) total dollars paid to primes located within the market area (excluding all subcontracting payments) and (2) dollars paid to subcontractors located within the market area, independent of their respective prime contractor location. Analysis of these data is broken down by the procurement categories of Construction, Professional Services, Other Services, Goods, and Airport Concessions and encompasses payments between July 1, 2017, through June 30, 2022.

5.4 Overall Utilization

Table 5-6 shows the M/WBE utilization amounted to 28.46% percent of total spend. Corresponding detailed analyses showing the utilization of firms by business ownership classification are presented in **Appendix C, Utilization, Availability, and Disparity NAICS Codes.**

TABLE 5-6.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	ALL PROCUREMENT CATEGORIES	
	Dollars (\$)	Percent (%)
Black Americans	\$427,177,929.06	5.55%
Hispanic Americans	\$967,723,888.34	12.57%
Asian American	\$269,994,580.51	3.51%
Native Americans	\$46,988,292.03	0.61%
Total MBE Firms	\$1,711,884,689.94	22.24%
Nonminority Women	\$478,696,401.67	6.22%
Total MWBE Firms	\$2,190,581,091.61	28.46%
Unclassified Firms	\$5,505,232,118.21	71.54%
TOTAL	\$7,695,813,209.82	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

In several business ownership classifications, MWBE firms have higher utilization rates than the represented in availability. For example, five businesses accounted for more than one-third of the City's total spend with Black American firms. Three businesses accounted for more than one-third of the City's total spend with Hispanic American firms. Three businesses accounted for 28% of the City's total spend with Asian American firms. Three businesses accounted for three-fifths of the City's total spend with Native American firms and three business accounted for a fourth of the City's total spend with non-minority women. The higher utilization rates within such firms indicate successful examples of businesses owned by individuals from underrepresented groups thriving in the Houston marketplace. These success stories can serve as valuable examples for other MWBEs, showcasing strategies, resilience, and adaptability that have enabled them to secure substantial contracts and revenue. While the higher utilization rates reflect progress in the City's business inclusion efforts, they may also indicate potential barriers to entry for other MWBEs within these categories. If such barriers exist in the City's marketplace, private sector and qualitative evidence contained in Chapters 6 and 7 of this report, will provide additional context.

Utilization by Procurement Category

The next series of tables show the summary results of MGT's utilization analysis of each of the procurement categories. Corresponding detailed analyses, showing the utilization NAICS codes for each procurement category, are presented in **Appendix C, Utilization, Availability, and Disparity Analyses**.

Beginning with an examination of Construction, **Table 5-7** shows the utilization of MWBE firms was 29.05 percent. Otherwise, utilization for specific classifications was:

- ◆ 5.28 percent for Black American firms;
- ◆ 16.52 percent for Hispanic American firms;
- ◆ 1.89 percent for Asian American firms;
- ◆ 0.77 percent for Native American firms;
- ◆ 24.47 percent for MBE firms;
- ◆ 4.58 percent for Nonminority Women firms; and
- ◆ 70.95 percent for Unclassified firms.

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Table 5-7.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
CONSTRUCTION

BUSINESS OWNERSHIP CLASSIFICATION	CONSTRUCTION SERVICES	
	Dollars (\$)	Percent (%)
Black Americans	\$232,026,134.26	5.28%
Hispanic Americans	\$725,363,519.09	16.52%
Asian American	\$82,866,153.17	1.89%
Native Americans	\$33,969,529.91	0.77%
Total MBE Firms	\$1,074,225,336.43	24.47%
Nonminority Women	\$201,026,021.58	4.58%
Total MWBE Firms	\$1,275,251,358.01	29.05%
Unclassified Firms	\$3,115,185,699.25	70.95%
TOTAL	\$4,390,437,057.26	100.00%

Source: MGT developed a Master Prime File based on City's system between July 1, 2017, through June 30, 2022.

Table 5-8 shows the utilization of MWBE firms was 33.45% percent in Professional Services. Individually, the MWBE utilization was:

- ♦ 7.57 percent for Black American firms;
- ♦ 7.72 percent for Hispanic American firms;
- ♦ 12.26 percent for Asian American firms;
- ♦ 0.18 percent for Native American firms;
- ♦ 27.73 percent for MBE firms;
- ♦ 5.72 percent for Nonminority Women firms; and
- ♦ 66.55 percent for Unclassified firms.

TABLE 5-8.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
PROFESSIONAL SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	PROFESSIONAL SERVICES	
	Dollars (\$)	Percent (%)
Black Americans	\$69,533,166.10	7.57%
Hispanic Americans	\$70,843,147.29	7.72%
Asian American	\$112,616,077.01	12.26%
Native Americans	\$1,630,393.80	0.18%
Total MBE Firms	\$254,622,784.20	27.73%
Nonminority Women	\$52,556,176.63	5.72%
Total MWBE Firms	\$307,178,960.83	33.45%
Unclassified Firms	\$611,035,521.55	66.55%
TOTAL	\$918,214,482.38	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

Table 5-9 shows the utilization of MWBE firms was 32.96% percent in Other Services. Individually, the MWBE utilization was:

- ◆ 6.76 percent for Black American firms;
- ◆ 12.09 percent for Hispanic American firms;
- ◆ 3.80 percent for Asian American firms;
- ◆ 0.37 percent for Native American firms;
- ◆ 23.02 percent for MBE firms;
- ◆ 9.94 percent for Nonminority Women firms; and
- ◆ 67.04 percent for Unclassified firms.

TABLE 5-9.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
OTHER SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	OTHER SERVICES	
	Dollars (\$)	Percent (%)
Black Americans	\$71,848,407.67	6.76%
Hispanic Americans	\$128,496,408.74	12.09%
Asian American	\$40,349,023.72	3.80%
Native Americans	\$3,972,956.97	0.37%
Total MBE Firms	\$244,666,797.10	23.02%
Nonminority Women	\$105,655,073.77	9.94%
Total MWBE Firms	\$350,321,870.87	32.96%
Unclassified Firms	\$712,434,179.81	67.04%
TOTAL	\$1,062,756,050.68	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

Table 5-10 shows the utilization of MWBE firms was 19.47 percent in Goods. Individually, the MWBE utilization was:

- ◆ 4.06 percent for Black American firms;
- ◆ 3.25 percent for Hispanic American firms;
- ◆ 2.58 percent for Asian American firms;
- ◆ 0.62 percent for Native American firms;
- ◆ 10.45 percent for MBE firms;
- ◆ 9.02 percent for Nonminority Women firms; and
- ◆ 80.53 percent for Unclassified firms.

TABLE 5-10.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
GOODS

BUSINESS OWNERSHIP CLASSIFICATION	GOODS	
	Dollars (\$)	Percent (%)
Black Americans	\$53,770,221.03	4.06%
Hispanic Americans	\$34,163,326.61	3.25%
Asian Americans	\$43,020,813.22	2.58%
Native Americans	\$7,415,411.35	0.56%
Total MBE Firms	\$138,369,772.21	10.45%
Nonminority Women	\$119,459,129.69	9.02%
Total MWBE Firms	\$257,828,901.90	19.47%
Unclassified Firms	\$1,066,576,717.60	80.53%
TOTAL	\$1,324,405,619.50	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

M/W/ACDBE firms collectively contribute a substantial portion of procurement value, indicating their meaningful participation in airport concession activities. However, there are notable variations among different ownership classifications:

- ◆ Black-owned firms demonstrate considerable utilization in Miscellaneous, contributing 27.10 percent, followed by 21.47 percent in Retail, and 17.59 percent in Food and Beverage to the total procurement value in these categories..
- ◆ Asian-owned firms show a strong utilization in the Miscellaneous, contributing 12.75% to the total procurement value. However, their participation in the Food & Beverage and Retail is relatively lower at 0.99% and 7.01%, respectively.
- ◆ Hispanic-owned firms exhibit a significant contribution to the Retail, representing 13.71% of the total procurement value. Their participation in the Food & Beverage and Miscellaneous categories is comparatively lower at 3.53% and 3.84%, respectively.
- ◆ Nonminority women-owned firms are notably utilized across all categories, particularly in Food & Beverage (10.16%) and Miscellaneous (4.51%).

Despite the meaningful utilization of M/W/ACDBE firms, when compared to non-ACDBE certified firms within the same categories, utilization declines.

Table 5-11 shows the utilization of MWBE firms that are certified and non-certified as ACDBEs in Airport Concessions.

TABLE 5-11.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
AIRPORT CONCESSIONS

BUSINESS OWNERSHIP CLASSIFICATION	FOOD & BEVERAGE		MISCELLANEOUS		RETAIL		TOTAL	
	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)
M/W/ACDBE Firms								
Black Americans	\$176,843,818.39	17.59%	\$112,983,981.11	27.10%	\$16,398,112.79	21.47%	\$311,960,618.71	20.67%
Asian Americans	\$9,910,957.17	0.99%	\$53,168,495.03	12.75%	\$5,353,368.94	7.01%	\$68,432,821.14	4.53%
Hispanic Americans	\$35,516,526.69	3.53%	\$16,009,786.73	3.84%	\$10,469,813.65	13.71%	\$61,996,127.07	4.11%
Native Americans	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Nonminority Women	\$102,125,272.98	10.16%	\$18,808,872.59	4.51%	\$1,465,098.88	1.92%	\$122,399,244.45	8.11%
Total M/W/ACDBE Firms	\$324,396,575.24	32.27%	\$200,971,135.45	48.20%	\$33,686,394.26	44.11%	\$564,750,631.25	37.42%
Unclassified Firms	\$680,781,544.70	67.73%	\$216,014,980.44	51.80%	\$42,678,025.38	55.89%	\$939,474,550.52	62.25%
Total	\$1,005,178,119.94	100.00%	\$416,986,115.89	100.00%	\$76,364,419.64	100.00%	\$1,509,093,785.62	100.00%
ACDBE Certified Firms								
Black Americans	\$135,157,002.88	13.45%	\$85,880,341.02	20.60%	\$12,138,440.28	15.90%	\$233,175,784.18	15.45%
Asian Americans	\$5,619,702.73	0.56%	\$53,168,495.03	12.75%	\$5,353,368.94	7.01%	\$64,141,566.70	4.25%
Hispanic Americans	\$4,205,893.44	0.42%	\$14,050,476.61	3.37%	\$10,135,387.14	13.27%	\$28,391,757.20	1.88%
Native Americans	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Nonminority Women	\$95,266,312.99	9.48%	\$7,911,054.61	1.90%	\$1,115,664.00	1.46%	\$104,293,031.60	6.91%
Total ACDBE Certified Firms	\$240,248,912.05	23.90%	\$161,010,367.26	38.61%	\$28,742,860.36	37.64%	\$430,002,139.67	28.49%
Non-ACDBE Certified Firms	\$764,929,207.89	76.10%	\$255,975,748.63	61.39%	\$47,621,559.28	62.36%	\$1,079,091,645.95	71.51%
TOTAL	\$1,005,178,119.94	100.00%	\$416,986,115.89	100.00%	\$76,364,419.64	100.00%	\$1,509,093,785.62	100.00%

Source: MGT developed a Master Utilization Database based on City's system between July 1, 2017, through June 30, 2022.

Table 5-12 provides total utilization on federally funded transportation projects with M/W/DBE firms and DBE certified firms for Construction, Other Services, and Goods during the study period. Collectively, M/W/DBE utilization totaled 51.77 percent of which spend with Black Americans represents 22.43 percent. Firms certified as DBEs received 21.62 percent of the total utilization during the study period.

TABLE 5-12.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
FEDERALLY FUNDED TRANSPORTATION PROJECTS

BUSINESS OWNERSHIP CLASSIFICATION	CONSTRUCTION		OTHER SERVICES		GOODS		TOTAL	
	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)	Dollars (\$)	Percent (%)
M/W/DBE Firms								
Black Americans	\$ 32,082,031.46	23.10%	\$ 488,534.13	12.44%	\$ 922,638.03	14.17%	\$ 33,493,203.62	22.43%
Hispanic Americans	\$ 26,827,840.71	19.31%	\$ 1,275,448.10	32.48%	\$ 129,273.33	1.99%	\$ 28,232,562.14	18.91%
Asian American	\$ 4,596,660.31	3.31%	\$ 63,759.00	1.62%	\$ 5,240,563.82	80.51%	\$ 9,900,983.13	6.63%
Native Americans	\$ 3,257,942.00	2.35%	\$ 0.00	0.00%	\$ 0.00	0.00%	\$ 3,257,942.00	2.18%
Nonminority Women	\$ 2,213,651.73	1.59%	\$ 0.00	0.00%	\$ 216,622.92	3.33%	\$ 2,430,274.65	1.63%
Total M/W/DBE Firms	\$ 68,978,126.21	49.66%	\$ 1,827,741.23	46.55%	\$ 6,509,098.10	100.00%	\$ 77,314,965.54	51.77%
Non-M/W/DBE Firms	\$ 69,920,211.27	50.34%	\$ 1,676,234.53	42.69%	\$ 0.00	0.00%	\$ 71,596,445.80	47.94%
TOTAL	\$ 138,898,337.48	100.00%	\$ 3,926,534.76	100.00%	\$ 6,509,098.10	100.00%	\$ 149,333,970.34	100.00%
DBE Certified Firms								
Black Americans	\$ 21,529,494.56	15.50%	\$ 163,929.11	4.17%	\$ 922,638.03	14.17%	\$ 22,616,061.70	15.14%
Hispanic Americans	\$ 7,390,453.69	5.32%	\$ 547,669.50	13.95%	\$ 406,984.00	6.25%	\$ 8,345,107.19	5.59%
Asian American	\$ 653,640.00	0.47%	\$ 0.00	0.00%	\$ 0.00	0.00%	\$ 653,640.00	0.44%
Native Americans	\$ 0.00	0.00%	\$ 0.00	0.00%	\$ 0.00	0.00%	\$ 0.00	0.00%
Nonminority Women	\$ 449,007.91	0.32%	\$ 0.00	0.00%	\$ 216,922.92	3.33%	\$ 665,930.83	0.45%
Total DBE Certified Firms	\$ 30,022,596.16	21.61%	\$ 711,598.61	18.12%	\$ 1,546,544.95	23.76%	\$ 32,280,739.72	21.62%
Non-DBE Certified Firms	\$ 108,875,741.32	78.39%	\$ 3,214,936.15	81.88%	\$ 4,962,553.15	76.24%	\$ 117,053,230.62	78.38%
TOTAL	\$ 138,898,337.48	100.00%	\$ 3,926,534.76	100.00%	\$ 6,509,098.10	100.00%	\$ 149,333,970.34	100.00%

Source: MGT developed a Contract Revenue Database based on City's system between July 1, 2017, through June 30, 2022.

DBE certified firms, particularly those owned by Black Americans and Hispanic Americans, demonstrate significant participation in certain procurement categories such as Construction and Other Services. The analysis shows twice as much utilization of firms that are classified as minority or woman owned firms compared to firms that are DBE certified.

The data collection and preparations included identifying firms that classify as small, or owned by persons with disabilities, or veterans. Data sources that identify these business ownership classifications were limited because it is not maintained as broadly as minority and women data sources are. Being that there is an overlap of the race, ethnicity, and gender classifications, utilization is shown at the total SBE, PDBE, and VOB classification and not by race, ethnicity, or gender. **Table 5-13** shows the utilization of SBE, PDBE, and VOB firms.

- ◆ Overall, 12.452 percent for SBE firms;
- ◆ Overall, 0.185 percent for PDBE firms;
- ◆ Overall, 0.014 percent for VOB firms.

TABLE 5-13.
UTILIZATION ANALYSIS FOR SBE, PDBE, AND VOB FIRMS

BUSINESS OWNERSHIP CLASSIFICATION	ALL	CONSTRUCTION	PROFESSIONAL SERVICES	OTHER SERVICES	GOODS
SBE	\$951,669,830.45	\$680,190,971.62	\$85,109,359.56	\$103,986,556.25	\$82,382,943.02
PDBE	\$14,172,237.52	\$600,306.03	\$702,397.00	\$12,097,177.30	\$772,357.19
VOBE	\$1,071,450.57	\$820,405.78	\$46,003.00	\$75,079.70	\$129,962.09
TOTAL	\$966,913,518.54	\$681,611,683.43	\$85,857,759.56	\$116,158,813.25	\$83,285,262.30
BUSINESS OWNERSHIP CLASSIFICATION	ALL (%)	CONSTRUCTION (%)	PROFESSIONAL SERVICES (%)	OTHER SERVICES (%)	GOODS (%)
SBE	12.452%	15.683%	9.27%	10.065%	6.220%
PDBE	0.185%	0.014%	0.08%	1.171%	0.058%
VOBE	0.014%	0.019%	0.01%	0.007%	0.010%

Source: MGT developed a Master Prime File based on City's system between July 1, 2017, through June 30, 2022.

5.4.1 Utilization Conclusions

The utilization analysis shows that M/WBE firms are utilized at lower rates than their non-M/WBE counterparts. Overall, 28.68 percent of City spend went to M/WBE firms, while 71.32 percent went to non-M/WBE firms. While M/WBE, DBE, and ACDBE utilization is lower than that of non-M/W/D/ACDBE firms, the proportion of firms willing and able to provide services to the City are a critical qualifying context in any determinations of disparity. Availability presented in **Chapter 4** and resulting disparity ratios, which follows, provide more definitive conclusions in this respect.

5.5 Disparity Analyses and Significance Testing

Building on our understanding of the City’s vendor utilization (**Section 5.2**) and the availability estimates presented in the previous section of this chapter (**Section 4.2**), we can use this information to identify potential disparities in the City’s procurement. A brief summary of the approach is provided in **Section 5.5.1** followed by the results of these disparity calculations and associated statistical significance testing in **Section 5.5.2**.

5.5.1 Disparity Analysis Methodology

Disparity, in this context, is the analysis of the differences between the utilization of minority- and women-owned firms (as presented in **Section 5.2**) and the respective availability of those firms (**Chapter 4**). Thus, MGT calculated disparity indices to examine whether minority-owned and women-owned firms received a proportional share of dollars based on the respective availability of minority-owned and women-owned firms located in the Study’s defined relevant market area (as presented in **Chapter 4**).

MGT’s disparity index methodology yields a value that is easily calculable, understandable in its interpretation, and universally comparable such that a disparity in utilization within minority-owned and women-owned firms can be assessed with reference to the utilization of nonminority-owned and male-owned firms.

The **disparity index** is a simple proportional calculation that divides utilization rates (percent of dollars awarded to firms by class) by their associated availability (percent of firms available to work, within that same class) and multiplies this value by 100. Thus, a disparity index value of zero (0.00) indicates absolutely no utilization and, therefore, absolute disparity. A disparity index of 100 indicates that utilization is perfectly proportionate to availability, therefore indicating the absence of disparity (that is, all things being equal).

Disparity Index =

$$\%U_{m,p_i} \div \%A_{m,p_i} \times 100$$

U_{m,p_i} = utilization of minorities- and women-owned firms_i for procurement_i

A_{m,p_i} = availability of minorities- and women-owned firms_i for procurement_i

A disparity index of 100 indicates that utilization is perfectly proportionate to availability, therefore indicating the absence of disparity (that is, all things being equal). Alternately, firms are considered **underutilized** if the disparity indices are less than 100, and **overutilized** if the indices are above 100.

Since there is no standardized measurement to evaluate the levels of underutilization or overutilization within a procurement context, MGT’s methodology to measure disparity, if disparity is found, is based on the Equal Employment Opportunity Commission’s (EEOC) “80 percent rule.”¹²⁹ In the employment discrimination framework, an employment disparity index below 80 indicates a “substantial disparity.” The Supreme Court has accepted the use of the “80 percent rule” in *Connecticut v. Teal* (*Teal*), 457 U.S. 440 (1982).¹³⁰ Therefore, following a similar pattern, firms are considered substantially underutilized (substantial disparity) if the disparity indices are 80 or less.

¹²⁹ Equal Employment Opportunity Commission, *Uniform Guidelines on Employee Selection Procedures*, Section 4, Part D, “Adverse impact and the ‘four-fifths rule.’”

¹³⁰ In *Teal* and other affirmative action cases, the terms “adverse impact,” “disparate impact,” and “discriminatory impact” are used interchangeably to characterize values of 80 and below.

Standard deviation tests or testing for **statistical significance**, in this context, is the analysis to determine the significance of the difference between the utilization of minority- and women-owned firms and the availability of those firms. This analysis can determine whether the disparities are substantial or statistically significant, which lends further statistical support to a finding of discrimination. The following explains MGT’s methodology.

Standard deviation measures the probability that a result is a random deviation from a predicted result, where the greater the number of standard deviations, the lower the probability the result is a random one. The accepted standard used by Courts in disparity testing has been two standard deviations. That is, if there is a result that falls within two standard deviations, then one can assume that the results are nonsignificant, or that no disparity has been confidently established.

Regarding the use of statistical significance in the disparity study context the National Cooperative Highway Research Program Report 644¹³¹ notes that:

- ♦ “. . . for statistical disparities to be taken as legally dispositive in the discrimination context, they should be (a) statistically significant and (b) “substantively” significant. Substantive significance is taken to mean, for example, a DBE utilization measure that is less than or equal to 80% of the corresponding DBE availability measure.”
- ♦ “In discrimination cases, the courts have usually required p-values of 5% or less to establish statistical significance in a two-sided case.”

Note that p-values are used to determine whether the differences between two populations feature legitimate differences (that would be sustained if we continued to collect more observations), or if the variation between them is simply a product of normal random variation between observations that would be washed out if we collected more data. A p-value of less than 0.05 suggests it is highly unlikely that the differences between two groups are just driven by chance. The use of the t-test to calculate p-values for disparity indices was approved by the Fourth Circuit in *H.B. Rowe v. Tippett*, 615 F.3d 233, 244-45 (4th Cir 2010).

Thus, MGT applies two major tests to determine statistical significance: (1) whether the disparity index is less than or equal to 80 percent of respective M/WBE availability, which is labeled “substantial disparity” and (2) whether the disparity index passes the t-test determination of statistical significance. In cases where one, or especially both, measures hold true, a remedy is typically deemed to be justifiable by courts, making these results critical outcomes of the subsequent analyses.

Statistical Significance Testing

$$t = \frac{u - a}{\sqrt{\frac{a * (1 - a) * \sum c_i^2}{(\sum c_i)^2}}}$$

t= the t-statistic

u = the ratio of minorities- and women-owned firms’ dollars compared to total dollars

a = the ratio of M/W/DBE firms to all firms

c_i = the dollar amount.

¹³¹ Transportation Research Board of the National Academies, National Cooperative Highway Research Program Report 644, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program* (2010), pages 49-50.

5.5.2 Disparity Analyses and Statistical Significance Testing

Included in this section are inputs and calculations of disparity indices and significance testing for each of the procurement categories and ownership classifications. Detailed corresponding analyses showing the disparity analysis of firms by race, ethnicity, and gender are presented in **Appendix C**. Analysis of disparities across all procurement categories in **Table 5-14** reveals:

- ♦ Black American firms were underutilized with a statistically significant disparity index of 72.05.
- ♦ Asian American firms were underutilized with a disparity index of 93.05;
- ♦ Hispanic American firms were underutilized with a disparity index of 95.49;
- ♦ Native American firms were underutilized with a substantial disparity index of 55.07;
- ♦ MBE firms were underutilized with a statistically significant disparity index of 86.38;
- ♦ Nonminority women firms were underutilized with a disparity index of 76.05; and
- ♦ Unclassified firms were overutilized with a statistically significant index of 108.06.

TABLE 5-14.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
ALL PROCUREMENT CATEGORIES

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	5.55%	7.70%	72.05	Underutilization	**	Disparity
Asian Americans	3.51%	3.77%	93.05	Underutilization		Disparity
Hispanic Americans	12.57%	13.17%	95.49	Underutilization		Disparity
Native Americans	0.61%	1.11%	55.07	Underutilization		Disparity
Total MBE Firms	22.24%	25.75%	86.38	Underutilization	***	Disparity
Nonminority Women	6.11%	8.04%	76.05	Underutilization		Disparity
Total MWBE Firms	28.46%	33.80%	84.23	Underutilization	***	Disparity
Unclassified Firms	71.54%	66.20%	108.06	Overutilization	***	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

"*" indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence).

"**" indicates the disparity is significant at a 10% level or better (90% confidence).

"***" indicates significance at a 5% level or better (95% confidence).

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00.

The calculation of disparity indices and significance testing for the **Construction** procurement category are depicted in **Table 5-15**. Relevant findings include:

- ♦ Black American firms were underutilized with a disparity index of 81.08;
- ♦ Asian American firms were underutilized with a substantial disparity index of 74.23;
- ♦ Hispanic American firms were overutilized with a disparity index of 105.93;
- ♦ Native American firms were underutilized with a disparity index 91.89;
- ♦ MBE firms were underutilized with a disparity index of 95.95;
- ♦ Nonminority women firms were underutilized with a substantial disparity index of 72.89; and
- ♦ Unclassified firms were overutilized with a substantial disparity index of 104.01.

TABLE 5-15.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
CONSTRUCTION

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	5.28%	6.52%	81.08	Underutilization		Disparity
Asian Americans	1.89%	2.54%	74.23	Underutilization		Disparity
Hispanic Americans	16.52%	15.60%	105.93	Overutilization		No Disparity
Native Americans	0.77%	0.84%	91.89	Underutilization		Disparity
Total MBE Firms	24.47%	25.50%	95.95	Underutilization		Disparity
Nonminority Women	4.58%	6.28%	72.89	Underutilization		Disparity
Total MWBE Firms	29.05%	31.78%	91.64	Underutilization		Disparity
Unclassified Firms	70.95%	68.22%	104.01	Overutilization		No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

“*” indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence).

“**” indicates the disparity is significant at a 10% level or better (90% confidence).

“***” indicates significance at a 5% level or better (95% confidence).

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00.

Disparity indices and significance testing for the **Professional Services** sector are presented in **Table 5-16**. Some findings include that:

- ♦ Black American firms were underutilized with a statistically significant disparity index of 52.04.
- ♦ Asian American firms were overutilized with a statistically significant disparity index of 208.24;
- ♦ Hispanic American firms were overutilized with a substantial disparity index of 110.18;
- ♦ Native American firms were underutilized with a substantial disparity index of 6.71;
- ♦ MBE firms were underutilized with a substantial disparity index of 92.15;
- ♦ Nonminority women firms were underutilized with a statistically significant disparity index of 50.83; and
- ♦ Unclassified firms were overutilized with a statistically significant disparity index of 113.55.

TABLE 5-16.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
PROFESSIONAL SERVICES

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	7.57%	14.55%	52.04	Underutilization	**	Disparity
Asian Americans	12.26%	5.89%	208.24	Overutilization	***	No Disparity
Hispanic Americans	7.72%	7.00%	110.18	Overutilization	***	Disparity
Native Americans	0.18%	2.65%	6.71	Underutilization	***	Disparity
Total MBE Firms	27.73%	30.09%	92.15	Underutilization	***	Disparity
Nonminority Women	5.72%	11.26%	50.83	Underutilization	***	Disparity
Total MWBE Firms	33.45%	41.35%	80.90	Underutilization	**	Disparity
Unclassified Firms	66.55%	58.61%	113.50	Overutilization	**	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

"*" indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence).

"**" indicates the disparity is significant at a 10% level or better (90% confidence).

"***" indicates significance at a 5% level or better (95% confidence).

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00.

Table 5-17 presents disparity indices and significance testing for the **Other Services** sector.

- ♦ Black American firms were underutilized with a substantial disparity index of 72.71.
- ♦ Asian American firms were underutilized with a substantial disparity index of 67.64;
- ♦ Hispanic American firms were underutilized with a substantial disparity index of 69.50;
- ♦ Native American firms were underutilized with a substantial disparity index of 26.77;
- ♦ MBE firms were underutilized with a substantial disparity index of 68.30;
- ♦ Nonminority women firms were underutilized with a disparity index of 81.10; and
- ♦ Unclassified firms were overutilized with a statistically significant disparity index of 124.06.

TABLE 5-17.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
OTHER SERVICES

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	6.76%	9.30%	72.71	Underutilization		Disparity
Asian Americans	3.80%	5.61%	67.64	Underutilization		Disparity
Hispanic Americans	12.09%	17.40%	69.50	Underutilization		Disparity
Native Americans	0.37%	1.40%	26.77	Underutilization		Disparity
Total MBE Firms	23.02%	33.71%	68.30	Underutilization	***	Disparity
Nonminority Women	9.94%	12.26%	81.10	Underutilization		Disparity
Total MWBE Firms	32.96%	45.97%	71.71	Underutilization	***	Disparity
Unclassified Firms	67.04%	54.03%	124.06	Overutilization	***	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

"*" indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence).

"**" indicates the disparity is significant at a 10% level or better (90% confidence).

"***" indicates significance at a 5% level or better (95% confidence).

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00.

Table 5-18 presents disparity indices and significance testing for the **Goods** sector.

- ♦ Black American firms were underutilized with a substantial disparity index of 72.35
- ♦ Asian American firms were underutilized with a statistically significant disparity index of 52.73;
- ♦ Hispanic American firms were underutilized with a statistically significant disparity index of 54.14;
- ♦ Native American firms were underutilized with a disparity index of 80.52;
- ♦ MBE firms were underutilized with a statistically significant disparity index of 60.75;
- ♦ Nonminority women firms were overutilized with a statistically significant disparity index of 109.07; and
- ♦ Unclassified firms were overutilized with a statistically significant disparity index of 108.05.

TABLE 5-18.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
GOODS

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	4.06%	5.61%	72.35	Underutilization		Disparity
Asian Americans	2.58%	4.89%	52.73	Underutilization	*	Disparity
Hispanic Americans	3.25%	6.00%	54.14	Underutilization	*	Disparity
Native Americans	0.56%	0.70%	80.52	Underutilization		Disparity
Total MBE Firms	10.45%	17.20%	60.75	Underutilization	***	Disparity
Nonminority Women	9.02%	8.27%	109.07	Overutilization		No Disparity
Total MWBE Firms	19.47%	25.47%	76.44	Underutilization	**	Disparity
Unclassified Firms	80.53%	74.53%	109.07	Overutilization	**	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability. “*” indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). “**” indicates the disparity is significant at a 10% level or better (90% confidence). “***” indicates significance at a 5% level or better (95% confidence). **BOLD** Indicates a substantial level of disparity, which is a disparity index below 80.00.

Table 5-19 presents disparity indices and significance testing for the **Airport Concessions**.

- ♦ Black American firms were underutilized with a disparity index of 92.12.
- ♦ Asian American firms were underutilized with a substantial disparity index of 44.50;
- ♦ Hispanic American firms were underutilized with a statistically significant disparity index of 36.08;
- ♦ Native American firms were underutilized with a substantial disparity index of 0.00;
- ♦ MBE firms were underutilized with a statistically significant disparity index of 74.20;
- ♦ Nonminority women firms were underutilized with a statistically significant disparity index of 74.20.

TABLE 5-19.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
AIRPORT CONCESSIONS

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	20.67%	22.44%	92.12	Underutilization		Disparity
Asian Americans	4.53%	10.19%	44.50	Underutilization	***	Disparity
Hispanic Americans	4.11%	11.39%	36.08	Underutilization	***	Disparity
Native Americans	0.00%	0.67%	0.00	Underutilization		Disparity
Nonminority Women	8.11%	10.93%	74.20	Underutilization		Disparity
Total M/W/ACDBE Firms	37.42%	55.62%	67.29	Underutilization	***	Disparity
Unclassified Firms	62.25%	43.68%	142.52	Overutilization	***	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability. “*” indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). “**” indicates the disparity is significant at a 10% level or better (90% confidence). “***” indicates significance at a 5% level or better (95% confidence). **BOLD** Indicates a substantial level of disparity, which is a disparity index below 80.00.

TABLE 5-20.
DISPARITY INDICES AND SIGNIFICANCE TESTING,
FEDERALLY FUNDED TRANSPORTATION PROJECTS

Business Ownership Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
Black Americans	15.14%	8.96%	169.10	Overutilization		No Disparity
Asian Americans	0.71%	5.74%	12.38	Underutilization		Disparity
Hispanic Americans	5.32%	25.11%	21.17	Underutilization		Disparity
Native Americans	0.00%	1.63%	0.00	Underutilization		Disparity
Nonminority Women	0.45%	9.87%	4.52	Underutilization		Disparity
Total M/W/DBE Firms	21.62%	51.30%	42.14	Underutilization		Disparity
Unclassified Firms	78.38%	48.70%	160.95	Overutilization		No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability. “*” indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). “**” indicates the disparity is significant at a 10% level or better (90% confidence). “***” indicates significance at a 5% level or better (95% confidence). **BOLD** Indicates a substantial level of disparity, which is a disparity index below 80.00.

5.6 Conclusions

The calculations of availability and disparity within this chapter and the preceding depiction of utilization serve as part of the evidentiary foundation for the future of City’s M/WBE program. These analyses provide part of the quantitative legal justification for any current or future remedies to assist M/WBEs within the market. In tandem with the results of the qualitative and private sector analyses, these results provide the evidence necessary to infer that discrimination in the marketplace has occurred. As summarized in the table below (**Table 5-21**), disparities between utilization and availability have been observed for most procurement and M/WBE categories included within the scope of the study, both in terms of the order of magnitude (disparity indices less than or equal to 80) and statistical significance, and thus an inference of discrimination in the marketplace can be derived. Where individual race, ethnicity, and gender categories were not statistically significant alone,¹³² it’s important to understand that they are part of the MBE and MWBE total categories that were overall substantial and statistically underutilized, and an inference of discrimination can be made where those categories saw substantial individual disparities.

TABLE 5-21.
M/WBE DISPARITY ANALYSIS SUMMARY CITY SPEND

Business Ownership Classification	All	CONSTRUCTION	PROFESSIONAL SERVICES	OTHER SERVICES	GOODS
Black Americans	*Disparity*	Disparity	*Disparity*	Disparity	Disparity
Asian Americans	Disparity	Disparity	No Disparity	Disparity	*Disparity*
Hispanic Americans	Disparity	No Disparity	No Disparity	Disparity	*Disparity*
Native Americans	Disparity	Disparity	*Disparity*	Disparity	Disparity
Total MBE Firms	*Disparity*	Disparity	*Disparity*	*Disparity*	*Disparity*
Nonminority Women	Disparity	Disparity	*Disparity*	Disparity	No Disparity
Total MWBE Firms	*Disparity*	Disparity	*Disparity*	*Disparity*	*Disparity*
Unclassified Firms	No Disparity	No Disparity	No Disparity	No Disparity	No Disparity

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00. ***Disparity*** indicates statistically significant disparity.

¹³² This could be attributed to the small number of payments made to these firms or the small actual number of firms in the marketplace.

6 Private Sector Analysis

6.1 Introduction

The **Legal Review** presented in **Chapter 2** explains that a government entity must have evidence of active or passive discrimination to permit the institution of a minority- and woman-owned business enterprise (M/WBE) program. Courts require a *compelling interest* analysis showing a connection between the government or agency and the public or private discrimination that may exist within their jurisdiction. This chapter focuses on the overarching question:

- ◆ ***Does evidence of discrimination in the private sector marketplace support the City of Houston’s continuance of its M/WBE program to avoid becoming a passive participant in discrimination?***

Chapter Sections	
6.1	Introduction
6.2	Private Sector Disparities in SBO Census Data
6.3	Private Sector Disparities in ABS Census Data
6.4	Analysis of Race, Ethnicity, and Gender Effects on Self-Employment Rates
6.5	Access to Credit
6.6	Conclusion

Passive discrimination describes a circumstance where a public entity resides in a market with measurable discrimination in the public and private sector but fails to take proactive actions to implement remedies. Courts have favorably looked upon private sector analyses as support to determine *compelling interest* in M/WBE programs:

- ◆ Defining passive participation, Justice O’Connor in *Croson* stated, “if the city could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.”¹³³
- ◆ In *Adarand*, the Tenth Circuit favorably cited evidence of capital market discrimination as relevant in establishing the factual predicate for the federal DBE program.¹³⁴
- ◆ *Concrete Works IV* found that barriers to business formation were relevant insofar as the evidence demonstrated that M/WBEs were “precluded from the outset from competing for public construction contracts.”¹³⁵
- ◆ In *Adarand*, the courts concluded a compelling interest for a government Disadvantaged Business Enterprise (DBE) program in part on evidence of private-sector discrimination.¹³⁶
- ◆ Along related lines, a court found regression analysis of census data to be relevant evidence showing barriers to M/WBE formation.¹³⁷

¹³³ *Richmond v. J. A. Croson Co.*, 488 U.S. 469, 492 (1989).

¹³⁴ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-70 (10th Cir. 2000).

¹³⁵ *Concrete Works of Colo. v. City & Cnty. of Denver*, 321 F.3d 950, 977 (10th Cir. 2003).

¹³⁶ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000)

¹³⁷ *Concrete Works IV*, 321 F.3d 950, 967-69 (10th Cir. 2003).

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

These court decisions support an investigation into the existence of discrimination in the private sector to determine whether or not evidence exists warranting M/WBE programs. This chapter provides evidence for the overarching question of whether or not the City of Houston has a continued compelling interest in maintaining its M/WBE program based on discriminatory circumstances observed in the private sector. Three sources of data can help to answer the overarching research question regarding disparities in the private sector:

- ◆ **2012 Census Survey of Business Owners (SBO) and 2017 Census Annual Business Survey (ABS) data**, which are used to determine:
 1. *Do marketplace disparities exist in the private sector regarding revenue within similar City of Houston procurement categories for firms owned by minorities or women?*
- ◆ **2017-2021 Census American Community Survey (ACS) Public Used Microdata Sample (PUMS) data**, which is used to determine whether, even after controlling for a number of relevant factors, there are disparities between minority- and women-owned firms on the one hand, and non-minority, non-women owned firms on the other hand. Among the questions this data allows us to answer are:
 1. *Does racial, ethnic, and gender status impact individual wages even after controlling differences among firms?*
 2. *Does racial, ethnic, and gender status impact business owner earnings even after controlling for differences among firms?*
 3. *Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed after controlling for differences? If so, does race, ethnicity, or gender have a role in the disparity?*
 4. *If minority and women-owned business enterprises (M/WBEs) and nonminority male-owned firms shared similar traits and marketplace "conditions" (i.e., similar "rewards" in terms of capital, wages, earning, etc.), what would be the effect on rates of self-employment by race, ethnicity, and gender?*

Notably, the results of this private sector analysis mirror many of the same qualitative and anecdotal results offered in **Chapter 7, Qualitative Analysis**, regarding discrimination faced by M/WBE firms in attempting to secure work on private sector projects.

6.2 Private Sector Disparities in SBO Census Data

To answer the overarching research question regarding the existence of disparities in the private sector, as well as the specific question of whether these disparities exist in procurement categories relevant to the City of Houston contracting domain, MGT obtained and analyzed the U.S. Census Bureau's 2012 Survey of Business Owners (SBO) data.¹³⁸ SBO provides data on economic and demographic characteristics

¹³⁸ These represent the most recent available data provided through the SBO program and were released in 2016.

for businesses and business owners by geography (such as states and metropolitan areas), categorized by industries defined by North American Industry Classification System (NAICS) codes, and supporting information, including firm receipts (sales),¹³⁹ firm employment size, and business ownership classification. The survey has been administered every five years since 1972 as part of the economic census. For the purposes of this study, African Americans as indicated in the census data is synonymous with the Office of Business Opportunity's definition of Black Americans.

The SBO gathers and reports data on (1) firms with paid employees, including workers on the payroll (employer firms), (2) firms without paid employees, including sole proprietors and partners of unincorporated businesses that do not have any other employees on the payroll (nonemployer firms), as well as (3) in aggregate across employer and nonemployer firms (all). MGT calculated private sector disparity indices to examine whether M/WBE firms in any of these categories received a proportionate share of firm sales based on the availability of M/WBE firms. Disparity indices were reviewed for all firms and employer firms. It should be noted that all of the disparity indices in the SBO tables are statistically significant within a **95 percent** confidence interval.

The following NAICS codes¹⁴⁰ were analyzed because they align with the procurement categories used for City of Houston's utilization analysis:

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

6.2.1 Results of Analysis

This private sector analysis presents disparity results based on the City of Houston geographic marketplace. The City of Houston marketplace contains the following counties in the Houston–The Woodlands–Sugar Land Metropolitan Statistical Areas: Austin County, TX; Galveston County, TX; Brazoria County, TX; Harris County, TX; Chambers County, TX; Liberty County, TX; Fort Bend County, TX; Montgomery County, TX; and Waller County, TX.

6.2.2 City of Houston Marketplace

Tables 6-1 through **6-5** show the measures of private sector disparities based on U.S. Census 2012 SBO data for the population of available firms in the City of Houston marketplace by race, ethnicity, and gender for construction; wholesale trade; professional, scientific, and technical services; administrative and support and waste management and remediation services; and other services (except public administration).

¹³⁹ Sales includes total shipments, receipts, revenue, or business done by the firm.

¹⁴⁰ The two-digit NAICS code level was utilized as those codes are the most prevalent level across all the 2012 SBO data.

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

6.2.2.1 NAICS Code 23: Construction, City of Houston Marketplace

Table 6-1 shows the construction availability, sales, and disparity results (NAICS Code 23).

There was a total of 563,696 construction firms (all firms¹⁴¹) in the City of Houston marketplace in 2012.

- ♦ African American firms (disparity index of 12.39) were substantially underutilized, accounting for 0.73 percent of all firms and 0.09 percent of sales.
- ♦ American Indian and Alaska Native firms (disparity index of 14.81) were substantially and significantly underutilized, accounting for 0.13 percent of all firms and 0.02 percent of sales.
- ♦ Asian American firms (disparity index of 28.12) were substantially and significantly underutilized, accounting for 0.36 percent of all firms and 0.10 percent of sales.
- ♦ Hispanic American firms (disparity index of 14.78) were substantially and significantly underutilized, accounting for 6.23 percent of all firms and 0.92 percent of sales.
- ♦ Native Hawaiian and Pacific Islander firms (disparity index of 3.30) were substantially and significantly underutilized, accounting for 0.01 percent of all firms and 0.00 percent of sales.
- ♦ Nonminority women firms (disparity index of 43.91) were substantially and significantly underutilized, accounting for 1.50 percent of all firms and 0.66 percent of sales.

There were 65,097 construction employer firms¹⁴² in the City of Houston marketplace in 2012.

- ♦ African American firms (disparity index of 50.13) were substantially and significantly underutilized, accounting for 0.13 percent of all firms and 0.07 percent of sales.
- ♦ American Indian and Alaska Native firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.05 percent of all firms and 0.00 percent of sales.
- ♦ Asian American firms (disparity index of 37.57) were substantially and significantly underutilized, accounting for 0.24 percent of all firms and 0.09 percent of sales.
- ♦ Hispanic American firms (disparity index of 20.04) were substantially and significantly underutilized, accounting for 1.67 percent of all firms and 0.33 percent of sales.
- ♦ Native Hawaiian and Pacific Islander firm data did not allow for a proper analysis.
- ♦ Nonminority women firms (disparity index of 43.67) were substantially and significantly underutilized, accounting for 1.39 percent of all firms and 0.61 percent of sales.

¹⁴¹ All firms include firms with and without payroll at any time during 2012.

¹⁴² Employer firms include firms with payroll at any time during 2012.

TABLE 6-1.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 23, CONSTRUCTION
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS ¹ (#)	ALL FIRMS, SALES ² (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	563,696	309,979,898	65,097	281,255,659
Nonminority Male	513,174	304,424,275	62,826	278,161,417
African American	4,093	278,949	86	186,258
American Indian and Alaska Native	751	61,145	34	0
Asian	2,028	313,619	159	258,071
Hispanic ⁴	35,122	2,854,338	1,086	940,317
Native Hawaiian and Other Pacific Islander	53	963	0	0
Nonminority Women	8,475	2,046,609	906	1,709,596
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
Nonminority Male	91.04%	98.21%	96.51%	98.90%
African American	0.73%	0.09%	0.13%	0.07%
American Indian and Alaska Native	0.13%	0.02%	0.05%	0.00%
Asian	0.36%	0.10%	0.24%	0.09%
Hispanic ⁴	6.23%	0.92%	1.67%	0.33%
Native Hawaiian and Other Pacific Islander	0.01%	0.00%	0.00%	0.00%
Nonminority Women	1.50%	0.66%	1.39%	0.61%
DISPARITY RATIOS ³				
All Firms		100.00		100.00
Nonminority Male		107.88		102.47
African American		12.39		50.13
American Indian and Alaska Native		14.81		0.00
Asian		28.12		37.57
Hispanic ⁴		14.78		20.04
Native Hawaiian and Other Pacific Islander		3.30		-
Nonminority Women		43.91		43.67

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

¹Firms include employer and nonemployer firms since nonemployer firms can provide services at the subcontractor/subconsultant level and hire independent contractors to increase capacity. Employer firms include firms with payroll at any time during 2012.

²Sales includes total shipments, receipts, revenue, or business done by the firm.

³Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.2.2.2 NAICS Code 42: Wholesale Trade, City of Houston Marketplace

Table 6-2 shows wholesale trade availability, sales, and disparity results (NAICS Code 42).

There was a total of 133,196 wholesale trade firms (all firms) in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 0.80) were substantially and significantly underutilized, accounting for 0.72 percent of all firms and 0.03 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 0.0) were substantially and significantly underutilized, accounting for 0.07 percent of all firms and 0.0 percent of sales.
- ◆ Asian American firms (disparity index of 16.38) were substantially and significantly underutilized, accounting for 2.01 percent of all firms and 0.33 percent of sales.
- ◆ Hispanic American firms (disparity index of 14.60) were substantially and significantly underutilized, accounting for 1.99 percent of all firms and 0.29 percent of sales.
- ◆ Native Hawaiian and Pacific Islander marketplace firm data did not allow for a proper analysis.
- ◆ Nonminority women firms (disparity index of 10.18) were substantially and significantly underutilized, accounting for 2.82 percent of all firms and 0.29 percent of sales.

There was a total of 64,718 wholesale trade employer firms in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.12 percent of all firms and 0.00 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.04 percent of all firms and 0.00 percent of sales.
- ◆ Asian American firms (disparity index of 14.49) were substantially and significantly underutilized, accounting for 2.22 percent of all firms and 0.32 percent of sales.
- ◆ Hispanic American firms (disparity index of 22.78) were substantially and significantly underutilized, accounting for 1.25 percent of all firms and 0.29 percent of sales.
- ◆ Native Hawaiian and Pacific Islander marketplace firm data did not allow for a proper analysis.
- ◆ Nonminority women firms (disparity index of 19.35) were substantially and significantly underutilized, accounting for 1.35 percent of all firms and 0.26 percent of sales.

TABLE 6-2.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 42, WHOLESALE TRADE
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS ¹ (#)	ALL FIRMS, SALES ² (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	133,196	2,639,910,114	64,718	2,629,716,292
Nonminority Male	123,050	2,615,798,520	61,489	2,606,778,464
African American	960	153,026	76	0
American Indian and Alaska Native	96	0	26	0
Asian	2,683	8,710,153	1,439	8,471,182
Hispanic ⁴	2,651	7,669,452	812	7,516,258
Native Hawaiian and Other Pacific Islander	0	0	0	0
Nonminority Women	3,756	7,578,963	876	6,950,388
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
Nonminority Male	92.38%	99.09%	95.01%	99.13%
African American	0.72%	0.01%	0.12%	0.00%
American Indian and Alaska Native	0.07%	0.00%	0.04%	0.00%
Asian	2.01%	0.33%	2.22%	0.32%
Hispanic ⁴	1.99%	0.29%	1.25%	0.29%
Native Hawaiian and Other Pacific Islander	0.00%	0.00%	0.00%	0.00%
Nonminority Women	2.82%	0.29%	1.35%	0.26%
DISPARITY RATIOS ³				
All Firms		100.00		100.00
Nonminority Male		107.26		104.33
African American		0.80		0.00
American Indian and Alaska Native		0.00		0.00
Asian		16.38		14.49
Hispanic ⁴		14.60		22.78
Native Hawaiian and Other Pacific Islander		-		-
Nonminority Women		10.18		19.53

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

¹Firms include employer and nonemployer firms since nonemployer firms can provide services at the subcontractor/subconsultant level and hire independent contractors to increase capacity. Employer firms include firms with payroll at any time during 2012.

²Sales includes total shipments, receipts, revenue, or business done by the firm.

³Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.2.2.3 NAICS Code 54: Professional, Scientific and Technical Services, City of Houston Marketplace

Table 6-3 shows the availability, sales, and disparity results for professional, scientific, and technical services (NAICS Code 54).

There was a total of 708,032 professional, scientific, and technical services firms (all firms) in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 11.30) were substantially and significantly underutilized, accounting for 1.19 percent of all firms and 0.13 percent of sales.
- ◆ American Indian and Alaska Native (disparity index of 29.36) were substantially and significantly underutilized, accounting for 0.08 percent of all firms and 0.02 percent of sales.
- ◆ Asian American firms (disparity index of 42.17) substantially and significantly underutilized, accounting for 1.16 percent of all firms and 0.49 percent of sales.
- ◆ Hispanic American firms (disparity index of 26.30) were substantially and significantly underutilized, accounting for 1.63 percent of all firms and 0.43 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.01 percent of all firms and 0.00 percent of sales.
- ◆ Nonminority women firms (disparity index of 26.76) were substantially and significantly underutilized, accounting for 3.96 percent of all firms and 1.06 percent of sales.

There was a total of 129,494 professional, scientific, and technical services employer firms in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 19.48) were substantially and significantly underutilized, accounting for 0.42 percent of all firms and 0.08 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 23.22) were substantially and significantly underutilized, accounting for 0.08 percent of all firms and 0.02 percent of sales.
- ◆ Asian American firms (disparity index of 30.24) were substantially and significantly underutilized, accounting for 1.40 percent of all firms and 0.42 percent of sales.
- ◆ Hispanic American firms (disparity index of 43.57) were substantially and significantly underutilized, accounting for 0.81 percent of all firms and 0.35 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.01 percent of all firms and 0.00 percent of sales.
- ◆ Nonminority women firms (disparity index of 36.18) were substantially and significantly underutilized, accounting for 2.38 percent of all firms and 0.86 percent of sales.

TABLE 6-3.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 54, PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS ¹ (#)	ALL FIRMS, SALES ² (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	708,032	324,500,473	129,494	291,601,456
Nonminority Male	651,233	317,576,668	122,899	286,541,733
Minority	28,791	3,488,908	3,519	2,553,932
African American	8,412	435,782	539	236,466
American Indian and Alaska Native	551	74,150	110	57,527
Asian	8,229	1,590,407	1,813	1,234,696
Hispanic ⁴	11,519	1,388,569	1,045	1,025,243
Native Hawaiian and Other Pacific Islander	80	0	12	0
Nonminority Women	28,008	3,434,897	3,076	2,505,791
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
Nonminority Male	91.98%	97.87%	94.91%	98.26%
Minority	4.07%	1.08%	2.72%	0.88%
African American	1.19%	0.13%	0.42%	0.08%
American Indian and Alaska Native	0.08%	0.02%	0.08%	0.02%
Asian	1.16%	0.49%	1.40%	0.42%
Hispanic ⁴	1.63%	0.43%	0.81%	0.35%
Native Hawaiian and Other Pacific Islander	0.01%	0.00%	0.01%	0.00%
Nonminority Women	3.96%	1.06%	2.38%	0.86%
DISPARITY RATIOS³				
All Firms		100.00		100.00
Nonminority Male		106.40		103.54
Minority		26.44		32.23
African American		11.30		19.48
American Indian and Alaska Native		29.36		23.22
Asian		42.17		30.24
Hispanic ⁴		26.30		43.57
Native Hawaiian and Other Pacific Islander		0.00		0.00
Nonminority Women		26.76		36.18

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

¹Firms include employer and nonemployer firms since nonemployer firms can provide services at the subcontractor/subconsultant level and hire independent contractors to increase capacity. Employer firms include firms with payroll at any time during 2012.

²Sales includes total shipments, receipts, revenue, or business done by the firm.

³Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

Disparity results are statistically significant within a 95 percent confidence interval.

6.2.2.4 NAICS Code 56: Administrative and Support and Waste Management and Remediation Services, City of Houston Marketplace

Table 6-4 shows the availability, sales, and disparity results for administrative, support, waste management, and remediation services (NAICS Code 56).

There were 557,904 administrative and support and waste management and remediation services firms (all firms) in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 16.22) were substantially and significantly underutilized, accounting for 1.81 percent of all firms and 0.29 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 6.06) were substantially and significantly underutilized, accounting for 0.14 percent of all firms and 0.01 percent of sales.
- ◆ Asian American firms (disparity index of 57.77) were substantially and significantly underutilized, accounting for 0.55 percent of all firms and 0.32 percent of sales.
- ◆ Hispanic American firms (disparity index of 18.43) were substantially and significantly underutilized, accounting for 5.45 percent of all firms and 1.00 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firms (disparity index of 7.13) were substantially and significantly underutilized, accounting for 0.01 percent of all firms and 0.00 percent of sales.
- ◆ Nonminority women firms (disparity index of 31.85) were substantially and significantly underutilized, accounting for 6.19 percent of all firms and 1.97 percent of sales.

There were 48,665 administrative and support and waste management and remediation services employer firms in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 41.62) were substantially and significantly underutilized, accounting for 0.54 percent of all firms and 0.22 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.03 percent of all firms and 0.00 percent of sales.
- ◆ Asian American firms (disparity index of 41.14) were substantially and significantly underutilized, accounting for 0.76 percent of all firms and 0.31 percent of sales.
- ◆ Hispanic American firms (disparity index of 80.14) were substantially and significantly underutilized, accounting for 0.89 percent of all firms and 0.71 percent of sales.
- ◆ Native Hawaiian and Pacific Islander marketplace firm data did not allow for a proper analysis.
- ◆ Nonminority women firms (disparity index of 68.65) were substantially and significantly underutilized, accounting for 2.61 percent of all firms and 1.79 percent of sales.

TABLE 6-4.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 56, ADMINISTRATIVE AND SUPPORT/WASTE MANAGEMENT AND REMEDIATION SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS ¹ (#)	ALL FIRMS, SALES ² (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	557,904	136,325,027	48,665	122,490,716
Nonminority Male	478,987	131,424,757	46,317	118,770,665
African American	10,118	400,930	261	273,402
American Indian and Alaska Native	760	11,257	17	0
Asian	3,050	430,573	368	381,090
Hispanic ⁴	30,397	1,369,067	431	869,422
Native Hawaiian and Other Pacific Islander	67	1,167	0	0
Nonminority Women	34,525	2,687,276	1,271	2,196,137
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
Nonminority Male	85.85%	96.41%	95.18%	96.96%
African American	1.81%	0.29%	0.54%	0.22%
American Indian and Alaska Native	0.14%	0.01%	0.03%	0.00%
Asian	0.55%	0.32%	0.76%	0.31%
Hispanic ⁴	5.45%	1.00%	0.89%	0.71%
Native Hawaiian and Other Pacific Islander	0.01%	0.00%	0.00%	0.00%
Nonminority Women	6.19%	1.97%	2.61%	1.79%
DISPARITY RATIOS³				
All Firms		100.00		100.00
Nonminority Male		112.29		101.88
African American		16.22		41.62
American Indian and Alaska Native		6.06		0.00
Asian		57.77		41.14
Hispanic ⁴		18.43		80.14
Native Hawaiian and Other Pacific Islander		7.13		-
Nonminority Women		31.85		68.65

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

¹Firms include employer and nonemployer firms since nonemployer firms can provide services at the subcontractor/subconsultant level and hire independent contractors to increase capacity. Employer firms include firms with payroll at any time during 2012.

²Sales includes total shipments, receipts, revenue, or business done by the firm.

³Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.2.2.5 NAICS Code 81: Other Services (Except Public Administration), City of Houston Marketplace

Table 6-5 shows the availability, sales, and disparity results for NAICS Code other services (except public administration) (NAICS Code 81).

There were a total of 657,009 other services (except public administration) firms (all firms) in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 16.79) were substantially and significantly underutilized, accounting for 2.19 percent of all firms and 0.37 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 11.22) were substantially and significantly underutilized, accounting for 0.13 percent of all firms and 0.01 percent of sales.
- ◆ Asian American firms (disparity index of 94.23) were underutilized, accounting for 1.98 percent of all firms and 1.87 percent of sales.
- ◆ Hispanic American firms (disparity index of 44.44) were substantially and significantly underutilized, accounting for 2.62 percent of all firms and 1.17 percent of sales.
- ◆ Native Hawaiian or Pacific Islander firms (disparity index of 21.45) were substantially and significantly underutilized, accounting for 0.00 percent of all firms and 0.00 percent of sales.
- ◆ Data for nonminority women firms (disparity index of 41.05) were substantially and significantly underutilized, accounting for 6.29 percent of all firms and 2.58 percent of sales.

There were 52,185 other services (except public administration) employer firms in the City of Houston marketplace in 2012.

- ◆ African American firms (disparity index of 56.00) were substantially and significantly underutilized, accounting for 0.13 percent of all firms and 0.07 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 0.00) were substantially and significantly underutilized, accounting for 0.00 percent of all firms and 0.00 percent of sales.
- ◆ Hispanic American firms (disparity index of 42.73) were substantially and significantly underutilized, accounting for 1.13 percent of all firms and 0.48 percent of sales.
- ◆ Native Hawaiian or Pacific Islander marketplace firm data did not allow for a proper analysis.
- ◆ Data for nonminority women firms (disparity index of 45.71) were substantially and significantly underutilized, accounting for 3.16 percent of all firms and 1.45 percent of sales.

TABLE 6-5.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 81, OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS ¹ (#)	ALL FIRMS, SALES ² (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	657,009	59,422,925	52,185	39,715,809
Nonminority Male	570,169	55,858,831	49,026	38,262,813
African American	14,391	218,489	66	28,128
American Indian and Alaska Native	839	8,511	1	0
Asian	13,021	1,109,699	852	658,950
Hispanic ⁴	17,246	693,102	590	191,883
Native Hawaiian and Other Pacific Islander	30	582	0	0
Nonminority Women	41,313	1,533,711	1,650	574,035
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
Nonminority Male	86.78%	94.00%	93.95%	96.34%
African American	2.19%	0.37%	0.13%	0.07%
American Indian and Alaska Native	0.13%	0.01%	0.00%	0.00%
Asian	1.98%	1.87%	1.63%	1.66%
Hispanic ⁴	2.62%	1.17%	1.13%	0.48%
Native Hawaiian and Other Pacific Islander	0.00%	0.00%	0.00%	0.00%
Nonminority Women	6.29%	2.58%	3.16%	1.45%
DISPARITY RATIOS ³				
All Firms		100.00		100.00
Nonminority Male		108.32		102.55
African American		16.79		56.00
American Indian and Alaska Native		11.22		0.00
Asian		94.23		101.62
Hispanic ⁴		44.44		42.73
Native Hawaiian and Other Pacific Islander		21.45		-
Nonminority Women		41.05		45.71

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

¹Firms include employer and nonemployer firms since nonemployer firms can provide services at the subcontractor/subconsultant level and hire independent contractors to increase capacity. Employer firms include firms with payroll at any time during 2012.

²Sales includes total shipments, receipts, revenue, or business done by the firm.

³Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.2.3 SBO Conclusion

The SBO analysis shows consistent underutilization of M/WBE firms relative to their availability in the marketplace. The results suggest that disparities exist in the broader private sector in which City of Houston conducts business and supports the idea that City of Houston should maintain remedies to avoid passive participation in discrimination, irrespective of circumstances in the public sector.

Furthermore, the five procurement categories analyzed showed substantial and statistically significant disparities among defined M/WBE classes where sufficient data were available.

6.3 Private Sector Disparities in ABS Census Data

As described above, SBO data is a vital resource in helping to answer the overarching research question regarding the existence of disparities in the private sector and the specific question of whether these disparities exist in procurement categories relevant to the City of Houston contracting domain. A limitation with the SBO data is, of course, its age. In 2017, the Census Bureau replaced the SBO data with the American Business Survey (ABS). Essentially this dataset is the same as the SBO with one caveat. ABS data no longer provides information for all firms, only employer firms. This data is still valuable for determining more recent private sector disparities, but it excludes a sector usually dominated by smaller businesses that are the beneficiary of any M/WBE program.

As with the SBO data, ABS gathers and reports data on firms with paid employees, including workers on the payroll (employer firms). MGT calculated private sector disparity indices to examine whether M/WBE firms in any of these categories received a proportionate share of sales based on the availability of M/WBE firms. Disparity indices were reviewed for firms with employees. It should be noted that all of the disparity indices in the ABS tables are statistically significant within a **95 percent** confidence interval. The same NAICS codes as the SBO analysis were analyzed for the ABS data and the same marketplace.

6.3.1 Results of Analysis

Tables 6-6 through **6-10** show the measures of private sector disparities based on U.S. Census 2017 ABS data for the population of available firms in the City of Houston marketplace by race, ethnicity, and gender for construction; wholesale trade; professional, scientific, and technical services; administrative and support and waste management and remediation services; and other services (except public administration).

Based on the analysis of the U.S. Census, 2017 ABS data, overall, there remains a significant gap between the market share of M/WBE firms and their share of the City of Houston marketplace business population, where data was available.

6.3.1.1 NAICS Code 23: Construction, City of Houston Marketplace

Table 6-6 shows the construction availability, sales, and disparity results (NAICS Code 23).

There were 571,580 construction employer firms¹⁴³ in the City of Houston marketplace in 2017.

- ◆ African American firms (disparity index of 50.82) were substantially underutilized accounting for 1.26 percent of all firms and 0.64 percent of sales.
- ◆ American Indian and Alaska firms (disparity index of 99.39) were underutilized, accounting for 0.10 percent of all firms and 0.10 percent of sales.
- ◆ Asian American firms (disparity index of 92.51) were underutilized, accounting for 0.63 percent of all firms and 0.58 percent of sales.
- ◆ Hispanic American firms (disparity index of 93.58) were underutilized, accounting for 8.92 percent of all firms and 8.34 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firms (disparity index of 87.09) were underutilized, accounting for 0.02 percent of all firms and 0.02 percent of sales.
- ◆ Data for nonminority women firms (disparity index of 72.37) were underutilized, accounting for 2.19 percent of all firms and 1.58 percent of sales.

¹⁴³ Employer firms include firms with payroll at any time during 2017.

TABLE 6-6.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 23, CONSTRUCTION
U.S. CENSUS 2017 ANNUAL BUSINESS SURVEY,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	571,580	36,831,021
Nonminority Male	496,580	32,678,426
African American	7,200	235,777
American Indian and Alaska Native	600	38,427
Asian	3,600	214,595
Hispanic ⁴	51,000	3,075,297
Native Hawaiian and Other Pacific Islander	100	5,612
Nonminority Women	12,500	582,887
PERCENTAGE OF MARKETPLACE		
All Firms	100.00%	100.00%
Nonminority Male	86.88%	88.73%
African American	1.26%	0.64%
American Indian and Alaska Native	0.10%	0.10%
Asian	0.63%	0.58%
Hispanic ⁴	8.92%	8.35%
Native Hawaiian and Other Pacific Islander	0.02%	0.02%
Nonminority Women	2.19%	1.58%
DISPARITY RATIOS ³		
All Firms		100.00
Nonminority Male		102.13
African American		50.82
American Indian and Alaska Native		99.39
Asian		92.51
Hispanic ⁴		93.58
Native Hawaiian and Other Pacific Islander		87.09
Nonminority Women		72.37

Source: MGT Consulting Group, LLC conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2017 Annual Business Survey (ABS) data.

¹ Employer firms include firms with payroll at any time during 2017.

² Sales includes total shipments, receipts, revenue, or business done by the firm.

³ Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴ Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.3.1.2 NAICS Code 42: Wholesale Trade, City of Houston Marketplace

Table 6-7 shows wholesale trade availability, sales, and disparity results (NAICS Code 42).

There were 59,770 wholesale trade employer firms in the City of Houston marketplace in 2017.

- ◆ African American firms (disparity index of 49.30) were substantially and significantly underutilized, accounting for 1.59 percent of all firms and 0.78 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 49.10) were substantially and significantly underutilized, accounting for 0.05 percent of all firms and 0.02 percent of sales.
- ◆ Asian American firms (disparity index of 122.44) were overutilized, accounting for 2.18 percent of all firms and 2.66 percent of sales.
- ◆ Hispanic American firms (disparity index of 83.45) were substantially and significantly underutilized, accounting for 3.51 percent of all firms and 2.93 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firm data did not allow for a proper analysis.
- ◆ Nonminority women firms (disparity index of 52.92) were substantially and significantly underutilized, accounting for 4.68 percent of all firms and 2.48 percent of sales.

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TABLE 6-7.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 42, WHOLESALE TRADE¹⁴⁴
U.S. CENSUS 2017 ANNUAL BUSINESS SURVEY,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	59,770	6,383,382
Nonminority Male	52,590	5,816,385
African American	950	50,018
American Indian and Alaska Native	30	1,573
Asian	1,300	169,996
Hispanic ⁴	2,100	187,149
Native Hawaiian and Other Pacific Islander	0	0
Nonminority Women	2,800	158,261
PERCENTAGE OF MARKETPLACE		
All Firms	100.00%	100.00%
Nonminority Male	87.99%	91.12%
African American	1.59%	0.78%
American Indian and Alaska Native	0.05%	0.02%
Asian	2.18%	2.66%
Hispanic ⁴	3.51%	2.93%
Native Hawaiian and Other Pacific Islander	0.00%	0.00%
Nonminority Women	4.68%	2.48%
DISPARITY RATIOS³		
All Firms		100.00
Nonminority Male		103.56
African American		49.30
American Indian and Alaska Native		49.10
Asian		122.44
Hispanic ⁴		83.45
Native Hawaiian and Other Pacific Islander		-
Nonminority Women		52.92

Source: MGT Consulting Group, LLC conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2017 Annual Business Survey (ABS) data.

¹ Employer firms include firms with payroll at any time during 2017.

² Sales includes total shipments, receipts, revenue, or business done by the firm.

³ Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴ Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

¹⁴⁴ This sector encompasses businesses involved in the distribution of goods to retailers, professional users, or other businesses. It includes activities such as merchant wholesalers, agents, brokers, and electronic markets and agents/brokers.

6.3.1.3 NAICS Code 54: Professional, Scientific, and Technical Services, City of Houston Marketplace

Table 6-8 shows the availability, sales, and disparity results for professional, scientific, and technical services (NAICS Code 54).

There was a total of 584,710 professional, scientific, and technical services employer firms in the City of Houston marketplace in 2017.

- ◆ African American firms (disparity index of 52.19) were substantially and significantly underutilized, accounting for 1.88 percent of all firms and 0.89 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 56.51) were substantially and significantly underutilized, accounting for 0.03 percent of all firms and 0.02 percent of sales.
- ◆ Asian American firms (disparity index of 90.30) were underutilized, accounting for 1.61 percent of all firms and 1.45 percent of sales.
- ◆ Hispanic American firms (disparity index of 72.90) were substantially and significantly underutilized, accounting for 2.48 percent of all firms and 1.81 percent of sales.
- ◆ Native Hawaiian and Pacific Islander firms (disparity index of 109.35) were overutilized, accounting for 0.01 percent of all firms and 0.01 percent of sales.
- ◆ Nonminority women firms (disparity index of 64.45) were substantially and significantly underutilized, accounting for 5.73 percent of all firms and 3.69 percent of sales.

TABLE 6-8.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 54, PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
U.S. CENSUS 2017 ANNUAL BUSINESS SURVEY,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	584,710	31,120,483
Nonminority Male	516,050	28,641,918
African American	11,000	305,550
American Indian and Alaska Native	200	6,015
Asian	9,400	451,773
Hispanic ⁴	14,500	562,592
Native Hawaiian and Other Pacific Islander	60	3,492
Nonminority Women	33,500	1,149,143
PERCENTAGE OF MARKETPLACE		
All Firms	100.00%	100.00%
Nonminority Male	88.26%	92.04%
African American	1.88%	0.98%
American Indian and Alaska Native	0.03%	0.02%
Asian	1.61%	1.45%
Hispanic ⁴	2.48%	1.81%
Native Hawaiian and Other Pacific Islander	0.01%	0.01%
Nonminority Women	5.73%	3.69%
DISPARITY RATIOS ³		
All Firms		100.00
Nonminority Male		103.19
African American		52.19
American Indian and Alaska Native		56.51
Asian		90.30
Hispanic ⁴		72.90
Native Hawaiian and Other Pacific Islander		109.35
Nonminority Women		64.45

Source: MGT Consulting Group, LLC conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2017 Annual Business Survey (ABS) data.

¹ Employer firms include firms with payroll at any time during 2017.

² Sales includes total shipments, receipts, revenue, or business done by the firm.

³ Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴ Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.3.1.4 NAICS Code 56: Administrative and Support and Waste Management and Remediation Services, City of Houston Marketplace

Table 6-9 shows the availability, sales, and disparity results for administrative and support and waste management and remediation services (NAICS Code 56).

There were 550,050 administrative and support and waste management and remediation services employer firms in the City of Houston marketplace in 2017.

- ♦ African American firms (disparity index of 65.29) were substantially and significantly underutilized, accounting for 2.91 percent of all firms and 1.90 percent of sales.
- ♦ American Indian and Alaska Native firms (disparity index of 89.09) were underutilized, accounting for 0.10 percent of all firms and 0.09 percent of sales.
- ♦ Asian American firms (disparity index of 106.56) were overutilized, accounting for 0.91 percent of all firms and 0.97 percent of sales.
- ♦ Hispanic American firms (disparity index of 96.03) were underutilized, accounting for 7.27 percent of all firms and 6.98 percent of sales.
- ♦ Native Hawaiian and Pacific Islander firms (disparity index of 76.11) were substantially and significantly underutilized, accounting for 0.02 percent of all firms and 0.01 percent of sales.
- ♦ Nonminority women firms (disparity index of 72.89) were substantially and significantly underutilized, accounting for 8.18 percent of all firms and 5.96 percent of sales.

TABLE 6-9.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 56, ADMINISTRATIVE AND SUPPORT/WASTE MANAGEMENT AND REMEDIATION
SERVICES U.S. CENSUS 2017 ANNUAL BUSINESS SURVEY,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	550,050	12,101,802
Nonminority Male	443,410	10,175,730
African American	16,000	229,851
American Indian and Alaska Native	550	10,779
Asian	5,000	117,221
Hispanic ⁴	40,000	845,098
Native Hawaiian and Other Pacific Islander	90	1,507
Nonminority Women	45,000	721,616
PERCENTAGE OF MARKETPLACE		
All Firms	100.00%	100.00%
Nonminority Male	80.61%	84.08%
African American	2.91%	1.90%
American Indian and Alaska Native	0.10%	0.09%
Asian	0.91%	0.97%
Hispanic ⁴	7.27%	6.98%
Native Hawaiian and Other Pacific Islander	0.02%	0.01%
Nonminority Women	8.18%	5.96%
DISPARITY RATIOS³		
All Firms		100.00
Nonminority Male		104.31
African American		65.29
American Indian and Alaska Native		89.08
Asian		106.56
Hispanic ⁴		96.03
Native Hawaiian and Other Pacific Islander		76.11
Nonminority Women		72.89

Source: MGT Consulting Group, LLC conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2017 Annual Business Survey (ABS) data.

¹ Employer firms include firms with payroll at any time during 2017.

² Sales includes total shipments, receipts, revenue, or business done by the firm.

³ Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴ Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.3.1.5 NAICS Code 81: Other Services (Except Public Administration), City of Houston Marketplace

Table 6-10 shows the availability, sales, and disparity results for NAICS Code other services (except public administration) (NAICS Code 81).

There were 571,950 other services (except public administration) employer firms in the City of Houston marketplace in 2017.

- ◆ African American firms (disparity index of 52.78) were substantially and significantly underutilized, accounting for 3.58 percent of all firms and 1.89 percent of sales.
- ◆ American Indian and Alaska Native firms (disparity index of 94.61) underutilized, accounting for 0.05 percent of all firms and 0.05 percent of sales.
- ◆ Asian American firms (disparity index of 115.69) were overutilized, accounting for 4.11 percent of all firms and 4.75 percent of sales.
- ◆ Hispanic American firms (disparity index of 103.69) were overutilized, accounting for 3.67 percent of all firms and 3.81 percent of sales.
- ◆ Native Hawaiian or Pacific Islander firms (disparity index of 73.66) were substantially and significantly underutilized, accounting for 0.01 percent of all firms and 0.01 percent of sales.
- ◆ Nonminority women firms (disparity index of 77.74) were substantially and significantly underutilized, accounting for 8.39 percent of all firms and 6.52 percent of sales.

TABLE 6-10.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 81, OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
U.S. CENSUS 2017 ANNUAL BUSINESS SURVEY,
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	571,950	17,717,088
Nonminority Male	458,590	14,699,165
African American	20,500	335,182
American Indian and Alaska Native	300	8,792
Asian	23,500	842,133
Hispanic ⁴	21,000	674,531
Native Hawaiian and Other Pacific Islander	60	1,369
Nonminority Women	48,000	1,155,916
PERCENTAGE OF MARKETPLACE		
All Firms	100.00%	100.00%
Nonminority Male	80.18%	82.97%
African American	3.58%	1.89%
American Indian and Alaska Native	0.05%	0.05%
Asian	4.11%	4.75%
Hispanic ⁴	3.67%	3.81%
Native Hawaiian and Other Pacific Islander	0.01%	0.01%
Nonminority Women	8.39%	6.52%
DISPARITY RATIOS ³		
All Firms		100.00
Nonminority Male		103.47
African American		52.78
American Indian and Alaska Native		94.61
Asian		115.69
Hispanic ⁴		103.69
Native Hawaiian and Other Pacific Islander		73.66
Nonminority Women		77.74

Source: MGT Consulting Group, LLC conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2017 Annual Business Survey (ABS) data.

¹ Employer firms include firms with payroll at any time during 2017.

² Sales includes total shipments, receipts, revenue, or business done by the firm.

³ Disparity index is the ratio of the percentage of sales to the percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

⁴ Hispanic firms are considered an ethnicity in this Census data and therefore may be double counted in race categories, which leads to percentages equaling greater than 100%.

N/A Denotes that there were no firms or sales for the classification.

Disparity results are statistically significant within a 95 percent confidence interval.

6.3.2 ABS Conclusion

Like the SBO analysis, the ABS analysis shows consistent underutilization of M/WBE firms relative to their availability in the marketplace. These results provide evidence that disparities exist in the broader private sector, thus supporting the need for City of Houston to maintain remedies to avoid passive participation in discrimination, irrespective of circumstances in the public sector.

As with the SBO results, the ABS results for each of the five procurement categories analyzed showed substantial disparity among defined M/WBE classes where sufficient data were available.

6.4 Analysis of Race, Ethnicity, and Gender Effects on Self-Employment and Earnings

This section examines further evidence regarding the overarching research question of whether business discrimination exists in the private sector and addresses three more specific questions:

1. *Does racial, ethnic, and gender status impact individual wages even after controlling for differences among firms?*
2. *Does racial, ethnic and gender status impact business owner earnings even after controlling for differences among firms?*
3. *Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed after controlling for differences? If so, does race, ethnicity, or gender have a role in the disparity?*
4. *If minority and women-owned business enterprises (M/WBEs) and nonminority male-owned firms shared similar traits and marketplace “conditions” (i.e., similar “rewards” in terms of capital, wages, earning, etc.), what would be the effect on rates of self-employment by race, ethnicity, and gender?*

Answers to these questions are achieved by examining the effects of race, ethnicity, and gender, alongside controls for individual economic and demographic characteristics, on individuals’ participation in the private sector as self-employed business operators and the effects of these variables on individuals’ wages and business-owner earnings. Any negative and statistically significant effects by race, ethnicity, and gender found in the model after individual economic and demographic characteristics are controlled for would be consistent with business-related discrimination. The analysis is targeted to five categories of private sector business activity (Construction, Professional Services, Goods, Other Services, and all categories combined) that generally align with City of Houston procurement categories defined for the Study.

Adopting the methodology and variables employed by a City of Denver disparity study (see *Concrete Works v. City and County of Denver*¹⁴⁵), MGT used Public Use Microdata Samples (PUMS) data derived from the 2017-2021 American Community Survey (ACS) to which MGT applied appropriate regression statistics to draw conclusions. The ACS is an ongoing survey covering the same type of information collected in the decennial census. The ACS is sent to approximately 3.5 million addresses annually, including housing units in all counties within the 50 States and the District of Columbia. The PUMS file from the ACS contains

¹⁴⁵ *Concrete Works of Colo. v. City & Cnty. of Denver*, 321 F.3d 950, 967 (10th Cir. 2003).

records for a subsample of the full ACS. The data used for the regression analyses are the multi-year estimates combining 2016 through 2020 ACS PUMS records. The combined file contains over six million person-level records. The 2017-2021 ACS PUMS data provides a full range of population and housing information collected in the annual ACS and the decennial census.

6.4.1 Links to Business Formation and Maintenance

Economics research consistently finds group differences by race, ethnicity, and gender in business formation rates.¹⁴⁶ MGT knows, for instance, that most minorities and women have a lower median age than nonminority males (ACS PUMS, 2017-2021). In general, the likelihood of being self-employed increases with age (ACS PUMS, 2017-2021). An examination of these variables within the context of a disparity study seeks to control for these other important demographic and economic variables in conjunction with race, ethnicity, and gender – since they also influence group rates of business formation. Through the analyses, MGT can determine whether inequities specific to minorities and women are demonstrably present to warrant consideration of public sector remedies. Questions about marketplace dynamics affecting self-employment— or, more specifically, the odds of forming one’s own business and then excelling (i.e., generate earnings growth)— are at the heart of disparity analysis research.

6.4.2 Statistical Models and Methods

MGT employed two multivariate regression techniques to answer the research questions identified for this section: (1) logistic regression and (2) linear regression. Logistic regression is an econometric method that allows for analyzing dichotomous dependent variables. The results can then be translated into log-likelihoods that examine how likely one variable is to be true compared to another variable. Linear regression is an econometric method that helps explain the linear relationship between the dependent and independent variables – how substantially and in what direction each independent variable influences the dependent variable. This will help analyze the direct impact of being part of a specific minority or gender group on earnings.

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

- ◆ Dependent variables are the phenomena to be explained by influences such as age, race, gender, and disability status (i.e., the independent or “explanatory” variables).
- ◆ The first dependent variable is individual wages, a continuous variable with many possible values. A simple linear regression is used to analyze this variable.
- ◆ The second dependent variable is self-employment business earnings, a continuous variable with many possible values. A simple linear regression is used to analyze this variable.

¹⁴⁶ See Journal of Econometrics, Vol. 61, Issue 1, devoted entirely to the econometrics of labor market discrimination and segregation.

- ◆ The third dependent variable is the probability of self-employment status, which is a binary, categorical variable based on two possible values: 0 (not self-employed) versus 1 (self-employed). Logistic regression is appropriately used to perform an analysis in which the dependent variable is binary and categorical. This technique was employed to analyze self-employment.¹⁴⁷
- ◆ For each analysis, several specifications were conducted. The first specification looked at the impact of race, ethnicity, and gender on individuals from the national level. The second and third specifications examined whether race, ethnicity, and gender significantly impacted individuals in the City of Houston market more than at the national level. The results presented in this chapter are specific to the City of Houston marketplace. Full specification results can be found in **Appendix D**.

6.4.3 The Influences of Race, Ethnicity, and Gender on Individual Wages

To explore whether there are any measurable impacts on wages, MGT compared minority and women nonbusiness owner wages to those of nonminority males in the City of Houston marketplace when the effect of other demographic and economic characteristics was controlled. Holding all other personal characteristics constant, if minority and women wage earners cannot achieve comparable wages due to discrimination as their nonminority counterparts, then they are not able to save the necessary capital to start their own businesses. MGT was able to examine the wages of individuals of similar education levels, ages, etc., to permit comparisons more purely by race, ethnicity, and gender.

First, MGT derived a set of independent variables known to predict wages, including:

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

MGT used 2017-2021 wages from employment for the dependent variable, as reported in the 5 percent PUMS data.

¹⁴⁷ Logistical regression, or logit, models generate predicted probabilities that are almost identical to those calculated by a probit procedure, used in *Concrete Works v. City and County of Denver* case. Logit, however, has the added advantage of dealing more effectively with observations at the extremes of a distribution. For a complete explanation, see *Interpreting Probability Models* (T.F. Liao, Text 101 in the Sage University series).

This analysis examined the statistical effects of these variables on wages for nonbusiness employees in the City of Houston marketplace. As the linear regression analysis yielded, each number in **Table 6-11** represents a percent change in earnings associated with introducing the variable (business ownership classification) in the left-hand column. For example, across all industries, the adjustment factor for an African American is -0.436, meaning that an African American would be predicted to earn 44 percent less than a nonminority male, all other variables considered or controlled for. Complete results of linear regression outputs can be found in **Appendix D**. Specifically:

- ◆ In construction, the negative disparity differences ranged from -16 percent for Native Americans to -47 percent for African Americans.
- ◆ In architecture & engineering, the negative disparity differences ranged from -17 percent for Hispanic Americans to -41 percent for nonminority women.
- ◆ In professional services, the negative disparity differences ranged from -26 percent for Native Americans to -47 percent for African Americans.
- ◆ In goods & services, the negative disparity differences ranged from -25 percent for Native Americans to -58 percent for African Americans.

The findings provide further positive evidence that disparities exist in the private sector of City of Houston’s marketplace, compelling the continuation of remedies in the domain of the government’s influence. The findings also provide affirmative evidence to the more specific questions regarding impacts on wages, demonstrating that racial, ethnic, and gender minority groups earn less wages than their nonminority male counterparts, all variables considered.

TABLE 6-11.
WAGES ELASTICITIES OF MINORITY GROUPS RELATIVE TO NONMINORITY MALES AFTER CONTROLLING FOR DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

WAGES	TOTAL	CONSTRUCTION	A&E	PROFESSIONAL SERVICES	GOODS & SERVICES
AFRICAN AMERICAN	-44%***	-47%***	-19%***	-47%***	-58%***
ASIAN AMERICAN	-45%***	-37%***	-27%***	-33%***	-53%***
HISPANIC AMERICAN	-32%***	-19%***	-17%***	-38%***	-36%***
NATIVE AMERICAN	-27%***	-16%***	-27%***	-26%***	-25%***
MBE	-37%***	-30%***	-22%***	-36%***	-43%***
NONMINORITY WOMEN	-49%***	-45%***	-41%***	-45%***	-51%***
TOTAL M/WBE	-39%***	-33%***	-25%***	-38%***	-44%***

Source: PUMS data from 2017-2021 American Community Survey (City of Houston marketplace) and MGT Consulting Group, LLC, calculations using SPSS Statistics software.

“*” indicates a significant adverse disparity at the 15% level or better (85% confidence). “***” indicates the disparity is significant at a 10% level or better (90% confidence). “****” indicates significance at a 5% level or better (95% confidence).

The regression “elasticity” means the percent change resulting from being a member of one of the M/WBE groups.

6.4.4 The Influences of Race, Ethnicity, and Gender on Business Owner Earnings

To explore whether there are any measurable impacts on business owner earnings, MGT compared minority and women business owner earnings to those of nonminority males in the City of Houston marketplace when the effect of other demographic and economic characteristics was controlled or neutralized. Holding all other personal characteristics constant, if minority and women business owners cannot achieve comparable earnings from their businesses as similarly situated non-minorities because of discrimination, then failure rates for M/WBEs will naturally be higher and M/WBE formation rates will be lower. MGT was able to examine the earnings of business owners of similar education levels, ages, etc., to permit comparisons more purely by race, ethnicity, and gender.

MGT utilized the same model specifications as outlined for wages in this linear regression model. MGT used the dependent variable's 2017-2021 earnings from business owners, as reported in the 5 percent PUMS data.

This analysis examined the statistical effects of the controlled variables on earnings for business owners in the City of Houston marketplace. As the linear regression analysis yielded, each number in **Table 6-12** represents a percent change in earnings associated with introducing the variable (business ownership classification) in the left-hand column. For example, across all industries, the adjustment factor for an Asian American is -0.206, meaning that an Asian American would be predicted to earn 21 percent less than a nonminority male, all other variables considered or controlled for. Complete results of linear regression outputs can be found in **Appendix D**. Specifically:

- ◆ In construction, the negative disparity differences ranged from -17 percent for African Americans to -28 percent for nonminority women.
- ◆ In architecture & engineering, the negative disparity differences ranged from 0 percent for Native Americans to -22 percent for Asian Americans.
- ◆ In professional services, the negative disparity differences ranged from -29 percent for Native Americans and Hispanic Americans to -35 percent for African Americans.
- ◆ In goods & services, the negative disparity differences ranged from -10 percent for Native Americans to -18 percent for Hispanic Americans.

As with individual wages, business owner earnings overall in the City of Houston marketplace provide consistent evidence that disparities exist in the private sector, indicating marketplace discrimination against M/WBEs when all other variables are controlled for.

TABLE 6-12.
BUSINESS EARNINGS ELASTICITIES OF MINORITY GROUPS RELATIVE TO NONMINORITY MALES AFTER
CONTROLLING FOR DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

BUSINESS EARNINGS	TOTAL	CONSTRUCTION	A&E	PROFESSIONAL SERVICES	GOODS & SERVICES
AFRICAN AMERICAN	-17%***	-17%***	-21%***	-35%***	-14%***
ASIAN AMERICAN	-21%***	-23%***	-22%***	-30%***	-16%***
HISPANIC AMERICAN	-18%***	-14%***	-12%***	-29%***	-18%***
NATIVE AMERICAN	-17%***	-22%***	0%	-29%***	-10%***
MBE	-18%***	-19%***	-14%***	-31%***	-14%***
NONMINORITY WOMEN	-17%***	-28%***	-16%***	-31%***	-15%***
TOTAL M/WBE	-18%***	-21%***	-14%***	-31%***	-15%***

Source: PUMS data from 2017-2021 American Community Survey (City of Houston marketplace) and MGT Consulting Group, LLC, calculations using SPSS Statistics software.

“*” indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). “**” indicates the disparity is significant at a 10% level or better (90% confidence). “***” indicates significance at a 5% level or better (95% confidence).

The regression “elasticity” means the percent change resulting from being a member of one of the M/WBE groups.

6.4.5 The Influences of Race, Ethnicity, and Gender on Self-Employment

As noted in the wages and business earnings analyses, discrimination that negatively affects the wages and entrepreneurial earnings of minorities and women will negatively affect the number of businesses formed by these groups as well. MGT used the 2017-2021 U.S. Census ACS 5 percent PUMS data to derive a set of variables known to predict employment status (self-employed/not self-employed). Logistic regression was used to calculate the probability of being self-employed (the dependent variable) based on selected socioeconomic and demographic characteristics with the potential to influence the likelihood of self-employment. The sample for the analysis was limited to labor force participants who met the following criteria:

- ◆ A resident of the City of Houston marketplace.
- ◆ Self-employed in construction, architecture & engineering, professional services, or goods and services.
- ◆ Employed full-time (more than 35 hours a week).
- ◆ Eighteen years of age or older.
- ◆ Employed in the private sector.

Next, MGT derived the following variables¹⁴⁸ hypothesized as predictors of employment status:

- ♦ **Race and Gender:** African American, Asian American, Hispanic American, Native American, nonminority woman, nonminority male.
- ♦ **Availability of Capital:** Homeownership, home value, mortgage rate, unearned income, residual income.
- ♦ **Marital Status.**
- ♦ **Ability to Speak English Well.**
- ♦ **Disability Status:** From individuals' reports of health-related disabilities.
- ♦ **Age and Age Squared:** Squaring the age variable acknowledges the positive, curvilinear relationship between each year of age and earnings.
- ♦ **Owner's Level of Education.**
- ♦ **Number of Individuals Over the Age of 65 Living in Household.**
- ♦ **Number of Children Under the Age of 18 Living in Household.**

Table 6-13 summarizes the business ownership formation rates in the United States and in the City of Houston marketplace by race, ethnicity, and gender. Additionally, it compares the differences in formation rates of M/WBEs to non-M/WBEs. As an example, African Americans in the City of Houston marketplace have a formation rate of 3.77 percent compared to 7.18 percent for their non-M/WBE counterparts. Thus, the formation rate for African Americans in the City of Houston marketplace is 47.5 percent lower than non-M/WBEs $((3.77 - 7.18)/7.18)$.

¹⁴⁸ The variables used in this analysis were modeled after those incorporated in the same analysis from *Concrete Works v. City and County of Denver*.

TABLE 6-13.
SELF-EMPLOYMENT FORMATION RATES

TOTALS			
	US	CITY OF HOUSTON	DIFFERENCE FROM NON-M/WBE (CITY OF HOUSTON)
AFRICAN AMERICAN	3.91%	3.77%	-47.51%
ASIAN AMERICAN	6.93%	7.82%	8.90%
HISPANIC AMERICAN	8.11%	2.49%	-65.38%
NATIVE AMERICAN	7.39%	3.94%	-45.11%
MBE	5.75%	4.10%	-42.91%
WHITE WOMEN	5.48%	4.27%	-40.58%
M/WBE	5.59%	4.16%	-42.13%
NON-M/WBE	13.09%	7.18%	
CONSTRUCTION			
	US	CITY OF HOUSTON	DIFFERENCE FROM NON-M/WBE (CITY OF HOUSTON)
AFRICAN AMERICAN	15.09%	9.85%	-39.51%
ASIAN AMERICAN	16.71%	14.35%	-11.87%
HISPANIC AMERICAN	21.83%	18.09%	11.15%
NATIVE AMERICAN	17.88%	0.00%	-100.00%
MBE	16.54%	13.63%	-16.27%
WHITE WOMEN	15.46%	11.41%	-29.90%
M/WBE	16.22%	12.94%	-20.50%
NON-M/WBE	22.93%	16.28%	
A&E			
	US	CITY OF HOUSTON	DIFFERENCE FROM NON-M/WBE (CITY OF HOUSTON)
AFRICAN AMERICAN	6.09%	1.43%	-89.44%
ASIAN AMERICAN	9.18%	5.67%	-58.14%
HISPANIC AMERICAN	6.86%	7.41%	-45.36%
NATIVE AMERICAN	8.25%	0.00%	-100.00%
MBE	7.00%	5.54%	-59.12%
WHITE WOMEN	8.40%	9.60%	-29.15%
M/WBE	7.78%	7.24%	-46.57%
NON-M/WBE	13.82%	13.56%	

PROFESSIONAL SERVICES			
	US	CITY OF HOUSTON	DIFFERENCE FROM NON-M/WBE (CITY OF HOUSTON)
AFRICAN AMERICAN	3.40%	3.13%	-66.18%
ASIAN AMERICAN	5.63%	2.03%	-78.07%
HISPANIC AMERICAN	7.44%	5.54%	-40.18%
NATIVE AMERICAN	4.90%	4.43%	-52.15%
MBE	4.74%	3.92%	-57.69%
WHITE WOMEN	5.12%	3.45%	-62.71%
M/WBE	4.99%	3.68%	-60.30%
NON-M/WBE	13.73%	9.26%	
GOODS & SERVICES			
	US	CITY OF HOUSTON	DIFFERENCE FROM NON-M/WBE (CITY OF HOUSTON)
AFRICAN AMERICAN	2.49%	1.70%	-76.85%
ASIAN AMERICAN	4.00%	2.09%	-71.53%
HISPANIC AMERICAN	7.89%	9.29%	26.67%
NATIVE AMERICAN	5.18%	0.00%	-100.00%
MBE	4.04%	4.91%	-33.11%
WHITE WOMEN	5.27%	4.11%	-43.98%
M/WBE	4.72%	4.56%	-37.91%
NON-M/WBE	6.71%	7.34%	

Source: PUMS data from 2017-2021 American Community Survey (City of Houston marketplace) and MGT Consulting Group LLC, calculations using SPSS Statistics software.

To test the impact that race, ethnicity, and gender has on the self-employment rates, the logistic regression analysis examined the statistical effects of these variables on being self-employed in the City of Houston marketplace. The results in **Table 6-14** indicate the percentage difference between the probability of business ownership for a given race, ethnicity, or gender group compared to similarly situated nonminority males. For example, African Americans in the construction industry have a business formation rate of 51 percent lower than expected in a race-, ethnicity-, and gender-neutral market area. The results in the following tables present rates for the groups after variables such as age and education have been controlled for. Results of logistic regression can be found in **Appendix D**.

TABLE 6-14.
SELF-EMPLOYMENT PERCENT DIFFERENCES CONTROLLING FOR DEMOGRAPHIC AND ECONOMIC
CHARACTERISTICS

SELF-EMPLOYMENT PERCENT CHANGES	TOTAL	CONSTRUCTION	A&E	PROFESSIONAL SERVICES	GOODS & SERVICES
AFRICAN AMERICAN	-33%***	-51%***	-43%***	-97%***	-25%***
ASIAN AMERICAN	-5%***	-46%***	-45%***	-67%***	52%***
HISPANIC AMERICAN	-40%***	-40%***	-11%***	-68%***	-31%***
NATIVE AMERICAN	-37%***	-62%***	-8%	-92%***	-47%***
MBE	-29%***	-50%***	-27%***	-81%***	-13%***
NONMINORITY WOMEN	-26%***	-35%***	-39%***	-85%***	-10%***
TOTAL M/WBE	-28%***	-47%***	-29%***	-82%***	-12%***

Source: PUMS data from 2017-2021 American Community Survey (City of Houston marketplace) and MGT Consulting Group, LLC, calculations using SPSS Statistics software.

“*” indicates a significant adverse disparity at the 15% level or better (85% confidence). “**” indicates the disparity is significant at a 10% level or better (90% confidence). “***” indicates significance at a 5% level or better (95% confidence).

These findings demonstrate that minorities and women, in general, are statistically significantly less likely to own their businesses than expected based upon their observable demographic characteristics, including age, education, geographic location, industry, and trends over time. Additionally, as with wage and business earnings, these groups are at a significant disadvantage to nonminority males whether they work as wage and salary employees or as entrepreneurs. These findings are consistent with results that would be observed in a discriminatory market area.

6.4.6 Disparities in Rates of Self-Employment

The analyses of self-employment rates and 2017-2021 ACS self-employment earnings revealed general disparities, consistent with business market discrimination, between minority and nonminority self-employed individuals whose businesses were located in the City of Houston marketplace. **Table 6-15** presents the results of observed formation rates vs. expected formation rates from the logistic regression. Column A presents the observed rates as seen in **Table 6-13**. Column B is calculated using the regression results and adjusting the observed rates accordingly. For example, for an African American in professional services, the percentage difference compared to a nonminority male controlling for all other variables is 96 percent, indicating that the expected self-employment rate for an African American should be 97 percent higher than what is observed (3.40 percent) or 6.70 percent. Column C is the disparity ratio between observed rates and expected rates.

TABLE 6-15.
OBSERVED AND PREDICTED SELF-EMPLOYMENT RATES
CITY OF HOUSTON MARKETPLACE

BUSINESS OWNERSHIP CLASSIFICATION	OBSERVED SELF-EMPLOYMENT RATES (A)	EXPECTED SELF-EMPLOYMENT RATES (B)	DISPARITY RATIO (C)
Overall			
African American Firms	2.64%	3.51%	75
Asian American Firms	3.09%	3.24%	96
Hispanic American Firms	6.61%	9.28%	71
Native American Firms	3.61%	4.93%	73
MBE Firms	3.81%	4.90%	78
Nonminority Women Firms	3.85%	4.87%	79
M/WBE Firms	3.84%	4.90%	78
Construction			
African American Firms	7.94%	12.00%	66
Asian American Firms	7.72%	11.24%	69
Hispanic American Firms	13.13%	20.08%	65
Native American Firms	7.53%	12.17%	62
MBE Firms	8.42%	12.58%	67
Nonminority Women Firms	13.17%	17.85%	74
M/WBE Firms	10.15%	15.15%	67
Architecture & Engineering			
African American Firms	4.54%	6.51%	70
Asian American Firms	5.73%	8.32%	69
Hispanic American Firms	6.25%	6.97%	90
Native American Firms	9.11%	9.86%	92
MBE Firms	5.74%	7.66%	75
Nonminority Women Firms	6.62%	9.21%	72
M/WBE Firms	6.22%	8.39%	74
Professional Services			
African American Firms	3.40%	6.70%	51
Asian American Firms	5.63%	9.39%	60
Hispanic American Firms	7.44%	12.47%	60
Native American Firms	4.90%	9.40%	52
MBE Firms	4.74%	8.57%	55
Nonminority Women Firms	5.12%	9.48%	54
M/WBE Firms	4.99%	9.07%	55
Goods & Services			
African American Firms	1.69%	2.11%	80
Asian American Firms	2.21%	1.06%	
Hispanic American Firms	7.11%	9.33%	76
Native American Firms	3.02%	4.44%	68
MBE Firms	3.17%	4.06%	78
Nonminority Women Firms	4.36%	6.68%	65
M/WBE Firms	3.81%	4.61%	83

Source: PUMS data from 2017-2021 American Community Survey (City of Houston marketplace) and MGT Consulting Group, LLC, calculations using SPSS Statistics software.

The findings provide evidence that for M/WBEs, discriminatory barriers exist to achieving the same level of self-employment rates as their non-M/WBE counterparts. The results further show that discriminatory marketplace factors are the cause of these differences in several instances.

6.5 Access to Credit

As noted throughout this chapter, discrimination occurs when different outcomes occur for individuals of different races, ethnicities, and gender after holding all of the personal characteristics constant. This might happen in private and public labor markets when equally productive individuals in similar jobs are paid different wages because of their race, ethnicity, or gender. In credit markets, it might occur when loan approvals differ across racial or gender groups with otherwise similar financial backgrounds. In this chapter, MGT examined whether there is evidence consistent with the presence of discrimination in the private sector against M/WBE businesses. Discrimination in the credit market against M/WBEs can significantly affect the likelihood that they will form and succeed, negatively impacting the business's size and longevity.

This section summarizes some national analyses about credit disparities and thus offers illustrative evidence of M/WBE firms' barriers to accessing credit. This information provides guidance to the results provided throughout the private-sector analysis.

6.5.1 Minority Business Development Agency

The U.S. Department of Commerce, Minority Business Development Agency published a report in January 2010 entitled, *"Disparities in Capital Access between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs."* Findings highlighted that access to affordable credit remains one of the main impediments to minority-owned firm growth.

General findings show that minority-owned businesses: pay higher interest rates on loans, are more likely to be denied credit, and are less likely to apply for loans because they fear their applications will be rejected.

- ◆ Among high sales firms, 52% of nonminority firms received loans compared with 41% of minority firms.
- ◆ The average loan amount for all high sales minority firms was \$149,000. The nonminority average was more than twice this amount at \$310,000.
- ◆ Among firms with gross receipts under \$500,000, loan denial rates for minority firms were about three times higher, at 42%, compared to those of non-minority-owned firms, at 16%.
- ◆ Among firms with gross receipts under \$500,000, 33% of minority firms did not apply for loans because of fear of rejection compared to 17% of nonminority firms.
- ◆ For all firms, minority firms paid 7.8% on average for loans compared with 6.4% for nonminority firms.

6.5.2 The Federal Reserve Small Business Credit Survey

The Small Business Credit Survey (SBCS) is a national collaboration of the 12 Reserve Banks of the Federal Reserve System¹⁴⁹. This survey has been conducted annually since 2015. Survey responses are collected from firms throughout the United States. While statistics are provided regarding how many responses are from each census region and division¹⁵⁰, the data provided online does not report race by division. The reports vary somewhat from year to year. For example, the 2016 reports include specific reports for minority and women-owned firms; and the 2018 reports included one regarding disaster-affected firms. Overall, each year's report documents that minority- and women-owned firms, particularly Black-owned firms, have less access to credit and pay more for credit than similarly situated white-owned firms. Data from four consecutive years documents the continuing challenge that minority-owned firms, particularly Black-owned firms, face regarding access to, and cost of, credit. Summary information from reports for employer firms is provided below.¹⁵¹

6.5.2.1 SBCS 2016

6.5.2.1.1 Report on Minority-Owned Firms

The 2016 SBCS fielded in Q3 and Q4 2016 yielded 7,916 responses from employer firms with race/ethnicity information in 50 states and the District of Columbia.

- ◆ Black-owned firm application rates for new funding are ten percentage points higher than White-owned firms, but their approval rates are 19 percentage points lower.
- ◆ 40% of Black-owned firms did not apply for financing because they were discouraged (i.e., they did not think they would be approved), compared with 14% of White-owned firms.
- ◆ Looking at firms approved for at least some financing, when comparing minority- and nonminority-owned firms with good credit scores, 40% of minority-owned firms received the total amount sought compared to 68% of nonminority-owned firms.
- ◆ Black-owned firms report more credit availability challenges (58% vs. 32%) and difficulty obtaining funds for expansion (62% vs. 31%) than White-owned firms.

6.5.2.1.2 Report on Woman-Owned Firms

- ◆ Low credit risk women-owned firms were less likely to be approved for business loans than their low credit risk male counterparts (68% compared to 78%).
- ◆ Sixty-four percent of women-owned firms reported a funding gap, receiving only some or none of the financing sought, compared to 56% of male-owned firms.

¹⁴⁹ The survey methodology provides for sample weighting to adjust for any sampling biases; race, ethnicity, and gender imputation by using statistical models to capture missing data; comparisons and adjustments to past reports; and credibility intervals to aide in survey estimates.

¹⁵⁰ Census regions and divisions are areas delineated for the purposes of statistical analysis and presentation.

¹⁵¹ Source: Small Business Credit Survey, Federal Reserve Banks.

- ◆ Fewer women-owned firms received all of the funding sought than male-owned firms, and more women received none. Among low credit risk firms, 48% of women-owned firms received all of the financing requested, compared to 57% of male-owned firms.

6.5.2.2 SBCS 2017

6.5.2.2.1 Report on Employer Firms

Fielded in Q3 and Q4 2017, the survey yielded 8,169 responses from small employer firms in the 50 states and the District of Columbia.

- ◆ Minority-owned firms report higher rates of financial challenges in the previous 12 months due to lack of credit availability than White-owned firms.
 - For firms with revenues less than \$1M, Black-owned firms (58%) reported financial challenges at twice the rate of white-owned firms (32%) (Asian 42%, Hispanic 45%).
 - MGT sees the same ratio for firms with revenues at more than \$1M: Black-owned firms, 49%, and White-owned firms, 24% (Asian 38%, Hispanic 34%).
- ◆ Rates of firms receiving at least some of the financing requested: for Black-owned firms, 61%, and White-owned firms 80% (Asian 73%, Hispanic 74%).
- ◆ For low credit risk firms, 85% of nonminority-owned firms received at least some of the financing requested compared with only 75% for similarly situated minority-owned firms.
- ◆ For low credit risk firms receiving total financing, 68% of nonminority-owned firms were approved compared to only 40% of minority-owned firms.

6.5.2.3 SBCS 2018

REPORT ON EMPLOYER FIRMS

There were 8,072 responses received for this survey from firms throughout the United States.

- ◆ Minority-owned firms report higher rates of financial challenges in the prior 12 months due to credit availability than white-owned firms. Rates were: Black-owned firms, 50%; Asian, 33%; Hispanic, 41%; and White-owned firms, 28%.
- ◆ Rates of firms receiving at least some of the financing requested ranged from a high of 80% for White-owned firms to a low of 59% for Black-owned firms.
- ◆ Rates of firms receiving the total amount requested ranged from a high of 49% for White-owned firms to a low of 23% for Black-owned firms.
- ◆ 38% of Black-owned firms did not apply for financing because they were discouraged (i.e., they did not think they would be approved), compared with 12% of White-owned firms.

6.5.2.4 SBCS 2019

6.5.2.4.1 Report on Minority-Owned Firms & Report on Employer Firms

The annual survey of businesses was fielded in the third and fourth quarters of 2018 and generated 6,614 responses from employer firms.

- ♦ Minority-owned firms report higher rates of financial challenges in the prior 12 months due to credit availability than white-owned firms. Rates were: Black-owned firms, 51%; Asian, 36%; Hispanic, 40%; and White-owned firms, 30%.
- ♦ Rates of firms receiving at least some of the financing requested ranged from a high of 80% for White-owned firms to a low of 62% for Black-owned firms.
- ♦ Rates of firms receiving the total amount requested ranged from a high of 49% for White-owned firms to a low of 31% for Black-owned firms.
- ♦ 28% of Black-owned firms did not apply for financing because they were discouraged (i.e., they did not think they would be approved), compared with 13% of White-owned firms.
- ♦ On average, Black- and Hispanic-owned firm applicants received approval for smaller shares of the financing they sought than White-owned small businesses that applied for financing.
- ♦ Larger shares of Black- and Hispanic-owned firm applicants did not receive any financing they applied for—38% and 33%, respectively—compared to 20% of White-owned business applicants.
- ♦ White-owned business applicants received approval for all the financing they applied for: 49%, compared to 39% of Asian-, 35% of Hispanic-, and 31% of Black-owned firm applicants.

6.6 Conclusions

Analysis of the U.S. Census 2012 SBO data, 2017 ABS data, and the PUMS 2017-2021 data demonstrate, in response to the overarching research question driving this analysis, that marketplace discrimination exists for M/WBE firms operating in the private sector within City of Houston's marketplace. Thus, based on the courts' guidance in this domain, City of Houston has a compelling interest in continuing its current M/WBE program.

To the more specific research questions:

- ♦ Findings from the U.S Census 2012 SBO and 2017 ABS data indicate substantial disparities for most M/WBE firms across industry sectors resembling the procurement categories identified for this Study.
- ♦ Findings from the 2017-2021 PUMS data indicate that:
 - Minority and women wages were significantly less in 2017-2021 than those of nonminority males, holding all other variables constant.

- M/WBE firms were significantly less likely than nonminority males to be self-employed.
- If they were self-employed, most M/WBE firms earned significantly less in 2017-2021 than self-employed nonminority males, holding all other variables constant.
- Analysis of observed vs. predicted self-employment rates show that marketplace discrimination impacted these rates. Further, this analysis indicates that holding all factors consistent, race, ethnicity, and gender play a role in the lower level of self-employment for M/WBEs.

A review of access to credit indicates that minorities and women tend to receive less than the requested amount of credit when they are approved than nonminority men; they are approved for credit less frequently than nonminority males, and that credit costs them more than nonminority males.

In light of these findings, credence may be given to the proposition established by Justice O'Connor in *Crosby*, which suggested a government could be a passive participant in private-sector discrimination if it did not act to counter these dynamics within the domain of its influence. This evidence stands alongside the disparities observed in public sector contracting to illustrate the substantial discriminatory inequities that continue to exist in City of Houston's marketplace, underscoring its compelling interest in continuing to pursue remedies to address these gaps.

FINAL DRAFT

7 Qualitative Analysis

7.1 Introduction

This chapter examines anecdotal evidence of conditions and obstacles faced by M/WBE, SBE, PDBE, AC/DBE, and VOB E firms in the Study market area in their experiences working with City of Houston (City), City’s prime contractors, and the private sector. The collection and analysis of anecdotal data was focused on firms registered to do business with the City and helps to explain and provide context for the quantitative data analyses found in **Chapter 3, Market Area and Availability Analyses** and **Chapter 4, Product Market, Utilization, and Disparity Analyses**. In conjunction with the quantitative data, MGT also was able to draw inferences from the anecdotal data as to the prevalence of obstacles perceived as limiting the participation of M/WBEs and other firms in the City’s procurement transactions.

Chapter Sections	
7.1	Introduction
7.2	Methodology
7.3	Demographics
7.4	Findings
7.5	Suggested Remedies from Anecdotal Participants
7.6	Professional Organization Interviews
7.7	Conclusions

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

The collective anecdotal activities gathered input from over 800 business owners or representatives regarding their opinions and perceptions of their experiences working with the City, or on the City’s projects as subcontractors.

7.2 Methodology

The blueprint for collecting and analyzing qualitative and anecdotal information for this Study was provided by the U.S. Supreme Court in *City of Richmond v. J.A. Croson*, 488 U.S. 469, 109 S.Ct. 706 (1989) (*Croson*). In that case, the Court held that race-conscious programs must be supported by strong documentation of discrimination, including evidentiary findings that go beyond the demographics of a community. Anecdotal information can bolster the quantitative analyses of contract expenditures to explain whether minority business creation, growth, and retention are negatively affected by discrimination. In *Croson*, the Court held that anecdotal accounts of discrimination could help establish a compelling interest for a local government to institute a race-conscious remedy. Moreover, such information can provide a local entity with a firm basis for fashioning a program that is narrowly tailored to remedy identified forms of marketplace discrimination and other barriers to MWBE participation in contract opportunities. Further discussion regarding the basis and motivation for collection and analysis of anecdotal data is contained in **Chapter 2, Legal Framework**.

MGT used a combination of surveys, business engagement meetings, online comments, focus groups, and one-on-one interviews with businesses to collect qualitative information that are analyzed to identify issues and concerns that were common to businesses in the market area. In addition to the qualitative data collection from area businesses, MGT conducted focus groups with area trade associations, and business organizations to gather anecdotes on their perceptions on the City's procurement process and impact of the Office of Business Opportunity (OBO) business programs to firms in the market area. While the collection of anecdotes from organizations and associations is not required by the courts, input from advocacy and professional development organizations give a third-party perspective of M/WBE issues and broadens the collection of M/WBE firms experiences doing business or attempting to do business with the City.

7.2.1 Communication, Outreach, and Engagement

Businesses in the City's Relevant Market Area were contacted using various communication methods of phone calls, email blasts distributed by the City and MGT, direct mailing of postcards, press releases, and City-sponsored procurement events. Additionally, MGT maintained a study website that was available to the public. MGT recommends that To identify firms in the market area, MGT developed a master vendor database of firms that incorporated vendor information from multiple sources, such as the City's vendor and certification lists; membership lists provided by area trade associations and business organizations; and vendor and certification lists collected from other public agencies to establish a base for the outreach efforts. This database was created to ensure that a broad range of firms in the marketplace were notified about the qualitative data collection activities.

MGT worked with the City to create a Communication, Outreach, and Engagement Plan that included various outreach methods geared to inform and encourage the business community's utilization and engagement for the anecdotal data collection activities. Outreach methods included:

- ◆ MGT and the City of Houston identified area trade associations and business organizations, referred to as stakeholders for purposes of this report, whose insights would be valuable to understanding the dynamics and perceptions of the vendor community. The stakeholders were notified via e-mail blasts and phone calls of anecdotal data collection activities and asked to encourage their members to participate.
- ◆ MGT and the City of Houston transmitted numerous email blasts to the business community to increase awareness and engagement.
- ◆ OBO provided on its website a direct link to the MGT-hosted disparity study website, which is a site that businesses and organizations regularly visit to obtain information about the OBO ad its Programs.
- ◆ In addition, OBO staff included within their email signatures a direct link to the vendor survey.

7.2.2 Sampling Methodology

MGT's sampling methodology for the in-depth interviews, focus groups, and business surveys was to randomly select firms from the Study's master vendor database. Each sample pulled included MWBE and non-MWBE firms in each procurement category studied in this report. To avoid contacting businesses

multiple times, the database was cross-referenced with previous extractions to ensure that firms did not participate in more than one anecdotal activity. The master vendor database contained approximately 31,100 unique potential qualitative respondents.

Additionally, MWBE firms were oversampled to facilitate statistical comparisons with non-MWBEs. Oversampling is the practice of selecting respondents so that some groups make up a larger share of the survey sample than they do in the population. Knowing that MWBEs make up a smaller population, oversampling is crucial to acquire accurate and comparable responses.

Table 7-1 illustrates the overall participation of MWBE and non-MWBE firms in all qualitative collection activities. African American (42% of participants), Nonminority Women (14% of participants), and Hispanic American (19% of participants), respectively, represented the largest group of participants.

TABLE 7-1. CITY OF HOUSTON
QUALITATIVE BUSINESS DEMOGRAPHICS
PROPORTION OF RESPONDENTS BY BUSINESS CLASSIFICATION & INDUSTRY

Business Ownership Classification	Construction	Professional Services	Other Services	Goods	Total
Black American	29%	45%	51%	51%	42%
Asian American	5%	13%	6%	10%	9%
Hispanic American	28%	15%	12%	17%	19%
Native American	2%	3%	0%	3%	2%
Total MBE	65%	15%	70%	82%	73%
Non-Minority Women	14%	10%	15%	11%	14%
Total M/WBE	79%	90%	84%	93%	87%

Source: Qualitative participants from business engagement meetings, in-depth interviews, focus groups, and vendor surveys.

7.2.3 Online and Telephone Survey

7.2.3.1 Methodology

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

Disparity study survey analyses are commonly plagued by sample size limitations, especially where the size of the minority business population is insufficient to permit a valid and representative sample. This problem is compounded when analyses are stratified further by business category. Insufficient sample size can pose problems for the statistical confidence of the results. MGT attempted to collect data in proportion to the distribution of M/WBEs and non-M/WBEs in the relevant market area. Although MGT's goal is to report data that can satisfy the 95 percent confidence level, this does not mean that data should not be reported because of slightly reduced confidence intervals, especially when extreme due diligence

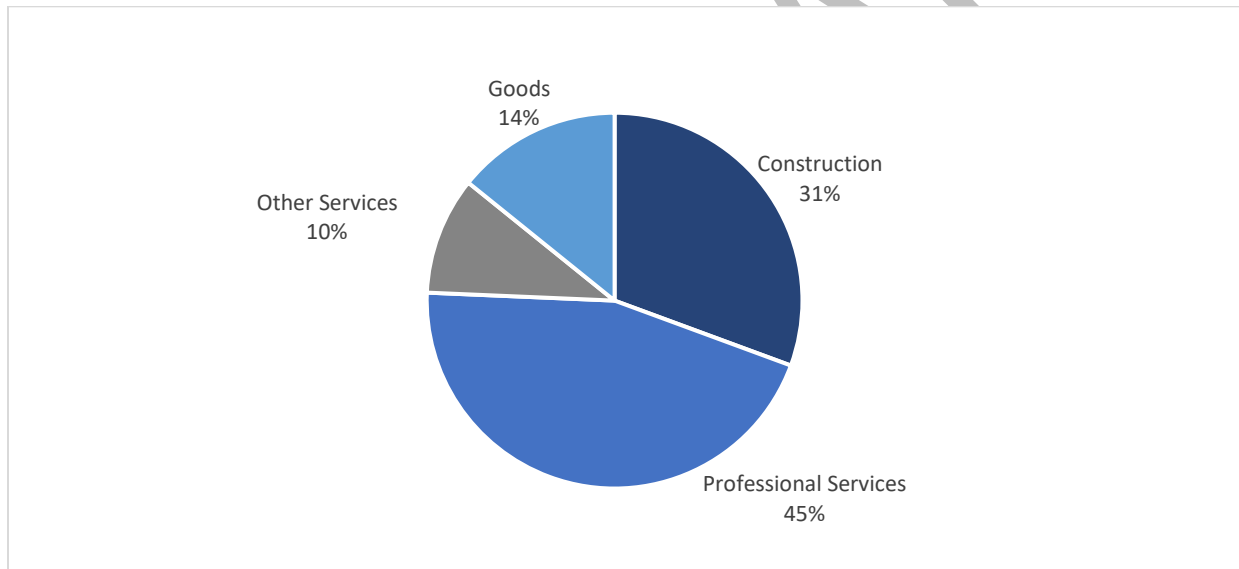
has been exercised in attempting to meet the 95 percent standard. The survey of vendors questionnaire is included in this report as **Appendix E, Vendor Survey Instrument**.

The data from the survey responses were analyzed to determine the types of firms represented in the findings included within this chapter. These survey demographics are included as **Appendix F, Demographics of Business Survey Respondents**.

7.2.3.2 Demographics

This survey collected 687 responses from firm owners and representatives in the City's relevant market area. MWBE firms accounted for 85 percent or 587 of the total respondents. **Figure 7-1** represents the industries of the survey respondents.

FIGURE 7-1. CITY OF HOUSTON
SURVEY OF VENDORS DEMOGRAPHICS:
PROPORTION OF RESPONDENTS BY INDUSTRY



Source: Vendor Surveys, MGT and Skybase7, 2023.

7.2.4 Business Engagement Meetings

7.2.4.1 Methodology

Area businesses and stakeholders were invited to attend virtual business engagement meetings to learn about the Study and provide their anecdotal input on doing business with the City and in the marketplace. Each business engagement meeting began with a presentation outlining the Study’s objectives, work tasks, and methods by which anecdotal input can be received. Following the presentation, attendees who wanted to provide comments did so individually. Two business engagement meetings were held on June 21, 2023, one in the morning and one in the afternoon. The business engagement meetings were open to the public, therefore, firms that participated in the meetings may have been randomly selected for other anecdotal activities.

7.2.4.2 Demographics

MGT held two business engagement meetings attended by 67 business owners and representatives representing varying industries, including construction, professional services, other services, and goods and services. The racial, ethnic, and gender compositions of all attendees are provided in **Table 7-2**.

TABLE 7-2. CITY OF HOUSTON
BUSINESS ENGAGEMENT MEETINGS DEMOGRAPHICS: M/WBE CLASSIFICATION

Business Ownership Classification	Construction	Professional Services	Other Services	Goods	Total
African American	47%	78%	0%	63%	67%
Asian American	0%	14%	0%	0%	8%
Hispanic American	20%	3%	0%	38%	11%
Native American	7%	0%	0%	0%	2%
Total MBE	73%	95%	0%	100%	89%
Nonminority Women	0%	5%	0%	0%	3%
Total MWBE	73%	100%	0%	100%	92%

Source: Attendance rosters during June 21, 2023 Business Engagement Meetings.

7.2.5 In-Depth Interviews with Businesses

7.2.5.1 Methodology

The in-depth interviews consisted of one-on-one interviews with M/WBE and non-M/WBE business owners or representatives to gather information about the firms’ experiences in attempting to do, and conduct, business with the City (both directly as a prime and/or as a subcontractor). During the interviews demographic information was gathered such as the firm’s primary line of business, ethnicity, gender, education/training background of the owner, , number of employees, and gross revenues during selected calendar and/or fiscal years.. The in-depth interviews were structured settings in which an interviewer or facilitator used an interview guide (**Appendix G**) to obtain input from participants. The interviews provided more latitude for additional information gathering on issues that are unique to the respondents’ experiences and that were not covered in the business engagement meetings or surveys. The interviewer

made no attempt to prompt or guide responses from the participants, although follow-up questions were asked to obtain further clarification or information as necessary and appropriate. Before the interviews began, each participant attested that their responses were given freely and were true and accurate reflections of their experience with the City of Houston, its prime contractors, in the marketplace or working with subcontractors.

7.2.5.2 Demographics

The in-depth interviews were conducted with randomly selected firms extracted from the master vendor database and located in the City’s relevant market area.¹⁵² MGT cross-referenced the list of firms for the interviews to ensure they were not previously selected for other anecdotal activities. In total, 49 firms were interviewed. The racial and ethnic composition of the firms that completed an interview are illustrated in **Table 7-3**.

TABLE 7-3. CITY OF HOUSTON
IN-DEPTH INTERVIEW DEMOGRAPHICS: M/WBE CLASSIFICATION

Business Ownership Classification	Construction	Professional Services	Other Services	Goods	Total
African American	63%	50%	0%	20%	47%
Asian American	0%	6%	0%	20%	6%
Hispanic American	25%	18%	0%	40%	20%
Native American	0%	0%	0%	0%	0%
Total MBE	88%	74%	0%	80%	73%
Nonminority Women	0%	21%	100%	20%	20%
Total MWBE	88%	94%	100%	100%	94%

Source: In-Depth Interviews, BWA Diversity Consulting and Goodwill Pierre LLC, 2023.

7.2.6 Focus Groups Methodology

The focus groups were small group conversations with businesses in the relevant geographic market area to gather information about the firms’ experiences in attempting to do, and conducting, business with the City (both directly as a prime and/or as a subcontractor). MGT scheduled seven focus groups by industry and invited firms to participate. The industries were construction, professional services, airport concessions, and good and services. The following focus groups were held virtually:

- ♦ August 7, 2023, 5:00pm-6:30pm (Construction Subcontractors)
- ♦ August 9, 2023, 1:00pm-2:00pm (Professional Services)
- ♦ August 9, 2023, 4:00pm-5:30pm (Construction Non-MWBE Subcontractors)
- ♦ August 10, 2023, 8:30am-10:00am (Construction MWBE Primes)
- ♦ August 22, 2023, 1:00pm-2:30pm (Airport Concessions)
- ♦ August 23, 2023, 9:00am-10:30am (Goods and Services)

¹⁵² See Chapter 4, Market Area and Utilization Analyses.

- ♦ August 29, 2023, 9:00am-10:30am (Construction Non-MWBE Primes)

7.2.6.1 Focus Groups

Focus groups were conducted with randomly selected firms extracted from the master vendor database and located in the City’s relevant market area. MGT cross-referenced the list of firms for the interviews to ensure they were not previously selected for other anecdotal activities. In total, 13 businesses participated. The racial and ethnic composition of the firms that completed an interview are illustrated in **Table 7-4**.

TABLE 7-4. CITY OF HOUSTON
FOCUS GROUPS DEMOGRAPHICS: M/WBE CLASSIFICATION

Business Ownership Classification	Construction	Professional Services	Other Services	Goods	Total
African American	0%	60%	0%	80%	54%
Asian American	0%	0%	0%	20%	8%
Hispanic American	0%	40%	0%	0%	15%
Native American	0%	0%	0%	0%	0%
Total MBE	0%	100%	0%	100%	77%
Nonminority Women	67%	0%	0%	0%	15%
Total MWBE	67%	100%	0%	100%	92%

Source: Focus Groups, MGT, 2023.

7.2.7 Professional Organization Outreach Methodology

Outreach to stakeholders (trade associations and business organizations) was beneficial to the outreach efforts because their assistance extended communication efforts to inform and engage the business community in anecdotal activities. Stakeholders were asked to provide their feedback on the MBE, WBE, SBE, PDBE, and DBE, programs and on procurement processes from the perspective of the objectives of the organization. In addition, stakeholders were asked to disseminate community meeting notices and encourage their members to participate in the anecdotal data collection activities.

Stakeholders were also asked to provide MGT with a copy of membership or vendor lists which were used to help build the master vendor outreach database. The organizations and associations included in these efforts are identified in **Appendix I, List of Trade Associations and Business Organizations**.

7.2.7.1 Professional Organization Interviews

Stakeholders were identified as area trade associations and business organizations that have a stake in the development and growth of area businesses, including minority- and women-owned businesses. MGT invited stakeholders to participate in interviews. The stakeholder organizations that participated in the interviews provide capacity building, advocacy, and technical and/or business development to their members, many of which are M/WBE firms. The common themes expressed by stakeholders included:

- ♦ Minority, woman, and disabled-owned businesses face greater challenges receiving bid opportunities, accessing capital, obtaining bonding, etc. compared to non-minority businesses due to their race, ethnicity, gender, etc.
 - A minority focused organization [7] stated, “Minorities in this day and age, still do not have relationships with bankers and are not afforded the opportunity to have those relationships. The ability to get bonding for minority companies co[m]e down to being willing to take a risk, and where this happens for the white woman or white man, there are significantly more hurdles for the black woman or black man as compared to their white counterparts. There is even a tendency not to receive the same discounts for materials. African Americans tend to have to go a different non-traditional route to secure the necessary financing.”
- ♦ The City needs to provide more support to minority, woman, and disabled businesses and allow more transparency about the bidding process.
 - A woman focused business organization [10] stated, “Be transparent regarding opportunities and if the decision has already been made then don't offer to others. This is the most frustrating part to have to deal with.”
- ♦ Informal networks are prevalent within the private and public sector and play a role in bid opportunities.
 - A business organization [2] stated...‘The good ole boy network is still alive and well. Specifically in construction, and it may never go away...’

7.2.8 Online Comments

The opportunity to submit written comments via email provided businesses that weren't sampled for interviews or surveys with a chance to share their anecdotal feedback. Comments were accepted until the conclusion of outreach efforts to ensure these firms had ample time to submit their input. As mentioned, the use of a multi-pronged approach to collecting qualitative data provided a broader reach within the relevant market area. The self-reported demographic characteristics of anecdotal participants by data collection activity type are presented in the sections below.

Submission of online comments was available via email and the Study website for firms to provide their comments regarding their experiences doing business with City, its primes, or in the private marketplace. Any comments received were reviewed for study inclusion.

7.3 Anecdotal Comments

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

In the successive sections, findings are generally organized around themes of concerns expressed by vendors, with evidence divided between (1) items identified through qualitative input from anecdotal research participants (interviews and open-ended comments) and (2) quantitative summaries of

perceptions collected through the custom census business surveys. In some cases, content is limited to one category of findings or the other based on the scope of information collected through either medium.

With the different categories of anecdotal collection used, the following is a guide to understanding where each excerpt derived from:

- ◆ B=Business Engagement Meeting
- ◆ F=Focus Group
- ◆ I=In-depth Interview
- ◆ V=Vendor Survey

7.3.1 Procurement Process Issues and Challenges of M/WBEs

Procurement processes and challenges are frequent issues of concern among vendors in the relevant market. The fair and equal opportunity to bid or propose on the City's contracts is critical to the growth and success of all firms, and particularly those of disadvantaged social or economic circumstances, such as M/WBEs.

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

- ◆ An Asian American owned [F1] goods and related services business stated, "I have not experienced, particularly that my proposal had any problems. The only problem I see would be my pricing would be a little high. The challenge I definitely see, which is a little difficult to get feedback from City of Houston, it's regarding the bid tabulation. I know they have a process that you can request for the pricing or bid tab where you stand, what's the feedback, who was awarded all of that. Which takes almost a month to get that information back because they have multiple processes..."
- ◆ An African American owned [F3] professional services business stated, "You know I met all the criteria and the qualifications, and we do a very good job because you know when you're a minority of a minority you have to constantly prove yourself. So the bigger firm no matter how much they screw up they still get the lucrative projects and I'm told the city and I've shown them that we've never had any sort of penalty or we haven't been written up and we continue to get the Mickey Mouse jobs."
- ◆ A Non-Minority Woman owned [B1] professional services business stated that if there is outreach about bid opportunities, she is having a hard time finding them.
- ◆ An African American owned [I30] professional services business stated regarding losing bids with the City, "...they already knew the company they wanted. Sometimes you can tell if a procurement is written for a specific company."
- ◆ A Hispanic owned [F3] professional services business stated that their business does not get the same opportunities as other business in the "good ole boy network."
- ◆ A Black American owned [V105] business stated, "The process is too complex for a small business, and I don't have the administrative staff to help me get through all the bureaucracy".

- ♦ A Hispanic owned business [V106] stated “There are too many politics involved. I feel like if you don't have the right connections or influence, they don't bother with you. I just stay away from City contracts.”
- ♦ A Non-M/WBE business [V107] stated “We work with almost every city except for the City of Houston. They pick and choose who they want to work with, and they are so cut throat. They already know who they want to work with.”

7.3.2 Office of Business Opportunity Programs

The Office of Business Opportunity provides support, policy guidelines, compliance, and oversight to ensure minority- and women-owned businesses have a fair opportunity to compete on the City's contracts. The department is committed to cultivating an inclusive and competitive economic environment in the City of Houston by promoting the success of small businesses.

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

- ♦ A Nonminority Woman owned [V75] professional services business stated “It takes 8 -12 months for any company to get through the certification process, which is unacceptable for small businesses. The City wants companies to be certified before they can bid on jobs. Our applications get stuck, and we lose the opportunity to bid. If I have a female that owns a construction company, I tell them not to bid because they cannot get certified before the opening bid date and deadline.”

7.3.3 Financial Barriers

Limited access to capital and inconsistent cash flow impacts M/WBE and small firms' ability to successfully complete projects, apply for and receive bonds, hire employees, and operate their businesses. Similarly, cash flow becomes a barrier for M/WBE firms, particularly smaller M/WBE firms, because it limits the amount of work they can bid on. As the results in **Chapter 6 Private Sector Analysis** shows, M/WBEs consistently earn less wages and less business earnings than their non-M/WBE counterparts. The anecdotes add credence to the assertion that with less capital M/WBEs face financial barriers to operating their businesses. Included below is a sampling of comments on this barrier.

- ♦ An African American owned [V101] other services business stated, “ We're actually in the process of walking away from the City. It's too frustrating. They discriminate against small businesses in a sense because you can't exceed \$50K in a calendar year or they'll take you out of the contract. How is a small business supposed to grow? They want you to stay stuck. Then, you see the same people getting all the work. They also give you a hard time getting paid, so I have to pay the collections guy.”
- ♦ A Nonminority Woman owned [F2] construction business stated that their company sometimes pays subcontractors in advance because small business cannot wait the 45 to 60 day window for payment from the City.
- ♦ An African American owned [V9] professional services business stated, “...bidding on jobs are useless if one does not have the money to fund the project, so it doesn't really make sense to

try bidding. Most contractors have a 30, 60 or 90 day pay period and this weeds the small companies out unless you are part of a buddy-buddy system.”

7.3.4 Prime Contracting Behavior

Subcontracting offers M/WBE firms a way to grow their businesses. Primes that treat M/WBEs unfairly or deny the opportunity to bid on contracts impacts the local economy but also potentially negatively impacts the growth of M/WBEs in the marketplace. Specific issues and challenges noted in this area include:

- ♦ An African American Woman-owned [V32] construction business stated in regard to prime behavior, “...I was included on a bid, and, after they won, I was pressured to make adjustments after I had firmed up my price.”
- ♦ An African American Woman-owned [V91] professional services business stated, “They [City] don’t hold the primes to the fire for the shady things they do. They [Prime] hold all these meetings and don’t include the subcontractor, when most of the time, you need the sub for input on finances and other things. The “Good Faith Effort” is not with them.”
- ♦ A Native American Woman-owned [V104] professional services business stated, “I brought in a prime contractor on a project I introduced to the client. The client issued an RFP and I forwarded the RFP to the prime contractor. The prime contractor took over the project and dropped my company’s utilization. The prime contractor won the bid and did not pay my company.”

7.3.5 Discrimination and Disparate Treatment

This section examines the type of discriminatory treatment encountered by M/WBEs working with the City, the City’s prime vendors, or in the City’s marketplace. A trend for firms that participated in interviews, surveys, or business engagement meetings was the indication that discrimination is prevalent and happens frequently in subtle ways and even to their peer competitors in the marketplace. Included below is a summary of survey of vendors responses as to whether they encountered disparate treatment or discrimination working with the City, or with the City’s primes.

Overall, indications of discriminatory treatment were reported highest by Native American firms, with an overall rate of 42 percent. Across the other groups, the reports were: African Americans (40 percent), Hispanic Americans (38 percent), Asian Americans (26 percent), and nonminority females (2 percent). All M/WBE groups indicated experiencing some form of discrimination and/or disparate treatment compared to nearly no indication for non-M/WBEs.

Exclusion from Business Networks and Events: Across all racial and gender groups, there was a noticeable trend where M/WBEs face exclusion from business networks and events due to the prevalence of a “good old boy network.” This network, consisting of prime contractors and subcontractors, tends to favor relationships over merit, often selecting firms of the same race, ethnicity, or gender. For firms seeking opportunities as primes, this exclusionary practice affects African American, Asian American, and Hispanic American, businesses equally, with approximately 9% reporting such discrimination. Whereas, at the subcontracting level 24% of M/WBEs reported encountering instances of exclusion.

Price Discrimination by Suppliers: Price discrimination poses another significant challenge for M/WBEs, albeit to varying degrees. While Asian American-owned businesses report the lowest incidence at 2%, other groups face higher levels of discrimination, with African American and Hispanic American businesses experiencing 5% discrimination in pricing as primes, compared to 10% of M/WBE subcontractors. This practice undermines the competitiveness of M/WBE firms in the marketplace.

Bid Shopping: Bid shopping is an additional challenge faced by M/WBEs, with primes disclosing the low bidder's price to others, often to obtain even lower bids. This practice is particularly pronounced among Native American-owned businesses, where 11% report being affected. However, other groups also face substantial levels of bid shopping, ranging from 3% to 5%. At the subcontractor level, 9% of M/WBEs reported being subjected to bid shopping.

Discrimination During Execution of Work: While executing their work, M/WBEs reported being subjected to various forms of discrimination, including racial slurs, workplace violence, intimidation, harassment, or sabotage. Native American-owned businesses report the highest incidence at 5%, followed by African American-owned businesses at 1%. Similar experiences were reported for M/WBE subcontractors.

Double Standards in Performance Measurement: M/WBEs also face challenges related to double standards in performance measurement and inspections of their work. Inspectors often target minority and women-owned businesses unfavorably, while non-minority firms escape similar scrutiny. This discrepancy in treatment undermines the credibility and fairness of regulatory processes, with 9% of minority owned subcontractors reporting this experience.

Refusal to Deal with Minorities or Women: Another significant barrier is the outright refusal by agencies, primes, suppliers, and/or customers to engage with M/WBEs based on their race, ethnicity, or gender. Approximately 5% of M/WBE primes and 11% of minority subcontractors report facing such discrimination, with Native American-owned businesses experiencing the highest incidence of this occurrence.

Denial of Bidding Opportunities: Finally, M/WBEs encounter denial of bidding opportunities based on their race, ethnicity, or gender, further limiting their access to economic opportunities. While the overall incidence is relatively low, at around 2% to 3%, this practice perpetuates systemic inequalities in the business landscape. While firms had not been denied opportunities to bid, disparate or discriminatory treatment and additional barriers has alluded their ability to successfully secure opportunities.

Further testimonials of M/WBEs indicating such experiences were as follows:

- ♦ An African American owned [16] professional services business stated team members working on projects for the City with public works and airport were treated different due to their ethnicity. The business owner stated it was more the prime contractor. The prime contractor made references to dialect, appearance, and asking about credentials to be on the project and making very subtle comments.
- ♦ A Hispanic Woman owned [118] construction business stated that she did a site visit but was stopped by the project manager questioning why she was there and where her husband was. .A Hispanic owned [114] professional services business stated, "As mentioned, we are always questioned about our ability to do the testing, where the lab was located, how we did the

testing, etc. We know that our counterparts are not asked those type of questions, as we've also worked on construction sites before starting the business. “

7.3.6 Barriers to Doing Business

Firms that participated in the qualitative data collection who also work in the private sector as primes noted that relationships are the foundation of their success. However, M/WBE subcontractor firms were not as fortunate in developing such relationships because the private sector does not historically have M/WBE goal requirements on their contracts, which means that without goals, primes hire M/WBE subcontractors for their projects at lower rates than their non-M/WBE counterparts. In *Builders Association of Greater Chicago v. City of Chicago*¹⁵³, the court held that the failure of prime contractors even to solicit qualified M/WBE firms is a “market failure” that is significant evidence in helping to establish a government’s compelling interest in remedying such failures.

Specifically, survey respondents were asked whether prime vendors who contract with their company on public sector projects with M/WBE goals do so on private sector projects without M/WBE goals. The survey sought to determine if prime behavior was the same when projects applied M/WBE goals versus projects without goals. Participants overwhelmingly agreed that primes who work with their company on public sector contracts with goals did not solicit M/WBE firms for private projects without goals. 84 percent of M/WBEs responded they are not solicited to bid on projects without goals.

Various challenges facing established minority and woman-owned businesses were the same for small non-M/WBE firms. As with start-ups, M/WBEs also raised a constellation of issues related to record-keeping, knowledge of how to fill out procurement paperwork, and lack of access to capital/credit/bonding nonminority firms did not appear to have. In many cases, these problems were attributed to a lack of valuable connections and not knowing the culture of the business or a specific industry. These problems could be attributed to “good-ole-boy” or bonding social capital networks among established business owners.

Not giving an opportunity to firms Barriers to doing business can vary widely to include market entry barriers, exclusions from

The top three barriers for all qualitative participants were:

- ◆ Lack of communication from the City before, during, and after bidding process
- ◆ Slow payment or non-payment for project work
- ◆ Informal network interfering with bid opportunities

7.4 Suggested Remedies from Participants

All qualitative data collection included the opportunity for participants to express their ideas and recommendations for improving the procurement process, M/WBE Program, or to increase M/WBE participation. A few recurring ideas and/or suggested remedies provided by participants are:

¹⁵³ *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp. 2d 725, 737 (N.D. Ill. 2003).

- ◆ Hire more staff members to decrease certification wait times.
- ◆ Hold non-minority and minority businesses accountable for contract goals.
- ◆ Increase communication and transparency of bid process.

7.5 Conclusions

Utilizing various methods, anecdotal data was gathered from a diverse array of businesses and industries. Several MWBEs identified informal networks, limited access to capital, limited communication from the City, delayed payment processes, and similar factors as obstacles hindering their business interactions with the City of Houston. Several MWBEs did feel discriminated against by the City and/or its prime contractors due to comments made and/or lack of contracting opportunities. Furthermore, MWBEs often expressed their sentiments of having to consistently demonstrate their qualifications for City contracting opportunities due to their race, ethnicity, or gender compared to non-minority businesses. Additionally, the results show that MWBE firms that were solicited for projects with MWBE goals are not solicited for projects without goals. The anecdotes derived from this extensive business population offer a blueprint for developing policies and procedures that can cater to the needs of businesses in the market area.

FINAL DRAFT

8 Findings, Commendations, and Remedies

8.1 Introduction

The City of Houston, TX engaged MGT Consulting Group (MGT) to conduct its 2023 Disparity Study to determine if there are any disparities between the utilization of minority- and women-, business enterprises (M/WBEs) compared to the availability of M/WBEs in the marketplace who are ready, willing, and able to perform work in the procurement categories of Construction, Professional Services, Other Services, Goods, and Airport Concessions.

Chapter Sections	
8.1	Introduction
8.2	Findings
8.3	Commendations and Recommendations
8.4	Conclusions

Within the context of studying the City's procurement practices, the study was conducted in a manner consistent with disparity study best practices, controlling local legal precedents, and constitutional law in order to properly advise the City about the legal basis for potential remedies, if necessary. MGT's methodology included a review of disparity studies legal framework, analyses of utilization, availability, and statistical disparity, qualitative research, private sector analyses, and findings, commendations, and recommendations.

Strict scrutiny requires the City's study to have evidence of M/WBE utilization and the success of M/WBEs in gaining business in the marketplace. This chapter summarizes the evidence on the central research question: *Is there factual predicate evidence for the City to adopt remedial measures for M/WBEs?* MGT's findings and evidence are based on fact-finding to analyze City procurement trends and practices between July 1, 2017 (FY18) through June 30, 2022 (FY 22); evaluate of the impact of race-and gender-neutral remedial efforts; and evaluate options for future program development regarding the utilization of M/WBEs and to evaluate various options for future program development. The results of this study and the conclusions drawn are presented in detail in **Chapters 4** through **7** of this report.

This chapter will summarize the evidence on the research questions:

- ◆ Is there factual predicate evidence for the City to adopt remedial measures for M/WBEs?
- ◆ How does case law inform the research methodology for the City's disparity study?
- ◆ Are there disparities between the availability and utilization of M/WBE primes and subcontractors?
- ◆ If so, what is the cause of the disparity? Is there other evidence that supports and/or explains why there is disparity?
- ◆ Does the City passively engage in private sector discrimination?
- ◆ Are there statistically significant disparities in the utilization of M/WBEs by primes on projects where there are no M/WBE goals?
- ◆ Is there qualitative/anecdotal evidence of disparate treatment of M/WBE subcontractors by prime contractors?

8.2 Findings

The subsequent sections highlight key findings of the Study. These pivotal insights shed light on the underutilization of M/WBEs compared to their availability in the marketplace. As such, the City should further establish initiatives and processes to remedy past discrimination against such firms.

Finding A: Relevant Geographic Market Areas *(Chapter 4, Appendix B)*

The entire universe of expenditure data was utilized to determine the Relevant Geographic Market Area for the study.¹⁵⁴ This included both expenditures to prime contractors and subcontractors. Based on the market area analysis results for each business category, the recommended relevant market area are the nine counties within the City of Houston Market Area (“Market Area”), as seen in the box below.

FIGURE 8-1. RELEVANT GEOGRAPHIC MARKET AREA

City of Houston Relevant Market Area	
Austin County, TX	Galveston County, TX
Brazoria County, TX	Harris County, TX
Chambers County, TX	Liberty County, TX
Fort Bend County, TX	Montgomery County, TX
Waller County, TX	

The spending in the Relevant Geographic Market Area is represented in **Table 8-1**. The product market represents the spending by North American Industry Classification System (NAICS). Overall, City procurements occur in **243** NAICS industry groups. In Construction, City procurements occur in **74** NAICS industry groups. In Professional Services, City procurements occur in **82** NAICS industry groups. Within Other Services, City procurements occur in **105** NAICS industry groups. In Goods, City procurements occur in **137** NAICS industry groups. In Airport Concessions, City procurements occur in **59** NAICS industry groups. The City’s product markets are shown in **Appendix A, Detailed Product Market Analysis**.

TABLE 8-1.
MARKET AREA ANALYSIS

¹⁵⁴ Chapter 4, Market Area and Utilization Analyses

DISTRIBUTION OF DOLLARS BY BUSINESS CATEGORY,
CITY OF HOUSTON MARKET AREA

CONSTRUCTION	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$3,867,591,571.43	88.09%
Outside City of Houston RGMA	\$522,845,485.83	11.91%
CONSTRUCTION, TOTAL	\$4,390,437,057.26	100.00%
PROFESSIONAL SERVICES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$598,499,250.13	65.18%
Outside City of Houston RGMA	\$319,715,232.25	34.82%
PROFESSIONAL SERVICES, TOTAL	\$918,214,482.38	100.00%
OTHER SERVICES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$710,394,686.75	66.84%
Outside City of Houston RGMA	\$352,361,363.93	33.16%
OTHER SERVICES, TOTAL	\$1,062,756,050.68	100.00%
GOODS	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$754,023,588.15	56.93%
Outside City of Houston RGMA	\$570,382,031.35	43.07%
GOODS, TOTAL	\$1,324,405,619.50	100.00%
ALL BUSINESS CATEGORIES	Amount	Percent
<i>Inside City of Houston RGMA</i>	\$5,930,509,096.46	77.1%
Outside City of Houston RGMA	\$1,765,304,113.36	22.9%
ALL BUSINESS CATEGORIES, TOTAL	\$7,695,813,209.82	100.00%

Finding B: Availability Estimates (Chapter 4, Appendix C)

A reliable estimation of the number of firms *willing* and *able* to provide each of the respective services under the examination scope is an incumbent element in the determination of disparity. Post-*Croson* case law has not prescribed a single approach to deriving firm availability, and agencies have used various means to estimate pools of available vendors that have withstood legal scrutiny.

MGT calculated availability based on a “custom census” approach. This approach is the most accurate for calculating availability at its most granular level. An in-depth explanation of this approach is provided in **Chapter 4**. Detailed availability results by business category and 4-digit NAICS code are provided in **Appendix C**. The availability estimates by procurement category are illustrated in **Table 8-2**.

TABLE 8-2.
ESTIMATION OF AVAILABLE FIRMS,
ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Black Americans	7.70%

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
Hispanic Americans	13.17%
Asian Americans	3.77%
Native Americans	1.11%
Total MBE Firms	25.75%
Nonminority Women	8.04%
Total M/WBE Firms	33.80%
Unclassified Firms	66.20%

Source: Chapter 4, Market Area and Availability.

Finding C: MWBE Utilization *(Chapter 4, Appendix C)*

In **Table 8-3**, the utilization analysis shows that non-MWBE firms are utilized at higher rates than their MWBE counterparts. Houston’s utilization with MWBE firms was 28.68 percent while non-MWBE firms totaled 71.32 percent. The highest utilization rates among MWBE classifications included Hispanic American firms accounting for 12.71 percent of dollars paid.

TABLE 8-3.
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	ALL PROCUREMENT CATEGORIES	
	Dollars (\$)	Percent (%)
Black Americans	\$427,177,929.06	5.55%
Hispanic Americans	\$967,723,888.34	12.57%
Asian American	\$269,994,580.51	3.51%
Native Americans	\$46,988,292.03	0.61%
Total MBE Firms	\$1,711,884,689.94	22.24%
Nonminority Women	\$478,696,401.67	6.22%
Total MWBE Firms	\$2,183,385,663.41	28.46%
Unclassified Firms	\$5,505,232,118.21	71.54%
TOTAL	\$7,695,813,209.82	100.00%

Source: Chapter 5, Product Market Area, Utilization, and Disparity Analyses.

Finding D: Disparity *(Chapter 5)*

This section includes the results of the disparity ratios calculated in **Chapter 5**. MGT’s disparity index methodology yields an easily calculable value, understandable in its interpretation, and universally comparable. A disparity in utilization within the minority- and female-owned firms can be assessed

concerning the utilization of nonminority- and male-owned firms. MGT applies two significant tests to determine statistical significance: (1) whether the disparity index is less than or equal to 80 percent of respective M/WBE availability, which is labeled “substantial disparity,” and (2) whether the disparity index passes the t-test determination of statistical significance. In cases where one, or especially both, measures hold true, a remedy is typically deemed justifiable by courts, making these results critical outcomes of the subsequent analyses.

The overall results show disparity for minority and nonminority women, collectively. Statistically significant disparity was identified collectively for minority and nonminority females within Goods and Other Services. Detailed disparity results by business category and 4-digit NAICS code are provided in **Appendix C, Utilization, Availability, and Disparity by NAICS Codes**.

TABLE 8-4.
DISPARITY RATIO SUMMARY ANALYSIS

Business Ownership Classification	All	CONSTRUCTION	PROFESSIONAL SERVICES	OTHER SERVICES	GOODS
Black Americans	*Disparity*	Disparity	*Disparity*	Disparity	Disparity
Asian Americans	Disparity	Disparity	No Disparity	Disparity	*Disparity*
Hispanic Americans	Disparity	No Disparity	No Disparity	Disparity	*Disparity*
Native Americans	Disparity	Disparity	*Disparity*	Disparity	Disparity
Total MBE Firms	*Disparity*	Disparity	*Disparity*	*Disparity*	*Disparity*
Nonminority Women	Disparity	Disparity	*Disparity*	Disparity	No Disparity
Total MWBE Firms	*Disparity*	Disparity	*Disparity*	*Disparity*	*Disparity*
Unclassified Firms	No Disparity	No Disparity	No Disparity	No Disparity	No Disparity

BOLD Indicates a substantial level of disparity, which is a disparity index below 80.00. ***Disparity*** indicates statistically significant.

Finding E: Private Sector Disparities in Census SBO and ABS Data (Chapter 6)

Based on US Census 2012 SBO and 2017 ABS data, MGT attempted to answer the research question; “Do marketplace disparities exist in the private sector regarding revenue within similar City procurement categories for firms owned by minorities or females?”. Both data sets gather and report firm information for firms with paid employees, including workers on the payroll (employer firms). SBO data is the only data set that provides firms without paid employees, including sole proprietors and partners of unincorporated businesses that do not have any other employees on the payroll (non-employer firms). This is an important distinction because it provides a more encompassing picture of the private sector. SBO is limited in the age of the data, but it can be supplemented with more recent ABS data. It should

also be noted that all the disparity indices in the SBO tables are statistically significant within a 95 percent confidence interval.

Finding F: Disparities in Individual Wages, Business Earnings, Self-Employment Rates *(Chapter 6)*

Findings from the Public Use Microdata Sample (PUMS) from 2015-2019 data indicate that minority and women wages were significantly less in 2016-2020 than those of nonminority males, holding all other variables constant. M/WBE firms were significantly less likely than nonminority males to be self-employed. If they were self-employed, most M/WBE firms earned significantly less in 2016-2020 than self-employed nonminority males, holding all other variables constant.

The analysis of observed versus predicted self-employment rates showed that marketplace discrimination impacted these rates. Further, this analysis indicates that holding all factors consistent, race, ethnicity, and gender play a role in the lower level of self-employment for MWBEs.

Finding G: Qualitative Results *(Chapter 7)*

The collective qualitative and anecdotal activities gathered input through vendor surveys, in-depth interviews, and business engagement meetings, business owners or representatives in the Relevant Market Area regarding their opinions and perceptions of how discrimination has affected their experiences working with City or with primes as subcontractors on City projects. Together, the City and MGT executed various outreach methods including direct emails, postcards, personal contact, press releases, and more to encourage business participation in the study.

Qualitative data were collected using multiple methods and included a broad reach of diverse businesses and business industries. Feedback from many businesses had common discriminatory themes regarding their experiences working or attempting to work with the City, such as prime contractors rarely utilizing MWBEs when there were no project goals, and other discriminatory barriers in doing business (i.e., informal networks, insurance requirements, slow or no payments, or contract requirements). Several MWBEs did feel discriminated against by the City and/or its prime contractors due to comments made and/or lack of contracting opportunities. Furthermore, MWBEs often expressed their sentiments of having to consistently demonstrate their qualifications for City contracting opportunities due to their race, ethnicity, or gender compared to non-minority businesses. The anecdotes derived from this extensive business population offer a blueprint for developing policies and procedures that can cater to the needs of businesses in the market area.

8.3 Commendations and Remedies

The City of Houston is applauded for its ongoing commitment to investing resources in fostering growth and development. The recent Disparity Study conducted by MGT has played a pivotal role in this endeavor by meticulously identifying existing initiatives aimed at promoting inclusive opportunities for businesses within the community. Through this study, the City has demonstrated its dedication to creating an environment that fosters diversity, equity, and inclusion, thus paving the way for a more vibrant and thriving local economy.

Therefore, the remedies are suggested to encourage the participation of small, minority-owned, woman-owned, physically disabled businesses in government contracting and procurement. The majority of the forthcoming suggestions are derived from a combination of various discoveries and may not exclusively correlate with a single finding. The practices identified below have worked well in certain localities, though some have not been as effective as others. Effectiveness can depend on a variety of factors. As such, it is difficult to determine whether a particular policy or practice is solely responsible for the success of a program.

Remedy A: Enhance Data Collection

Within this report, MGT detailed the level of effort it took to combine multiple data sources for an accurate analysis of the City's MWBE, DBE, PDBE, and SBE utilization. The City has invested in contract compliance software with the intent of having accurate and complete data readily available. It was identified during the study that there are significant gaps and processes that are lacking in order for the latter to be the case. The B2GNow software is designed to collaborate with the City's SAP financial system to ensure that the OBO Office can accurately assess the impact of its programs. Improved data collection will allow the City to understand its true economic impact of the diverse businesses in the market area and produce more detailed reports on the program's utilization.

In addition to updating the payment information in the system, firms contracted by the City must be required to enter all subcontract data to expand the OBO Office's compliance and reporting.

Remedy B: Advertise Future Informal Procurement Opportunities

In addition to its commendable efforts in fostering inclusivity, the City should be acknowledged for its proactive approach in identifying contracting opportunities for small businesses, particularly in forecasting larger, long-lead projects. This proposed remedy is derived from multiple anecdotal comments of firms, particularly small firms that they do not know where or how to learn of information opportunities. It's equally important to recognize the significance of smaller, informal purchases as avenues for minority and women-owned businesses to expand their operations. To further support these businesses, the City should collaborate with the procurement department to develop a forecast spanning 6 to 12 months, specifically outlining informal procurement opportunities. This proactive approach would enable businesses to adequately prepare and position themselves to capitalize on these opportunities, ultimately fostering their growth and success within the local economy.

Remedy C: Establish Contract Compliance Process for Indefinite Delivery/Indefinite Quantity (IDIQ) Purchases

Indefinite Delivery/Indefinite Quantity (IDIQ) contracts are issued to a firm in which the scope of work or material quantities have yet to be determined. The City should establish a comprehensive and transparent contract compliance process to ensure adherence to regulations and promote equity in the awarding and execution of IDIQ contracts. The City should define specific compliance requirements relevant to IDIQ contracts, including but not limited to minority-owned, women-owned, veteran-owned, and small business participation goals, as well as any applicable labor standards and reporting obligations. In addition, the City should develop robust monitoring mechanisms to track compliance throughout the lifecycle of IDIQ contracts, including pre-award, performance, and post-award phases. This may involve the use of tracking systems, periodic audits, and performance evaluations, and goal attainment.

Remedy D: Adopt a Policy Forbidding Exclusivity Agreements between Primes and Subcontractors

Comments from Minority and Women-Owned Business Enterprises (MWBE) in the qualitative data collection expressed concerns of their inability to provide quotes to multiple bidders because primes require subcontractors to agree to exclusivity. MWBE firms shall be provided with equal opportunities to submit multiple bids or proposals that enhance their chances of winning subcontracting opportunities. The City should prohibit the use of exclusivity agreements between prime contractors and MWBE subcontractors. Prime contractors shall not be allowed to enter into agreements that limit subcontracting opportunities for MWBE firms or restrict their ability to work with other prime contractors.

Remedy E: Modify Graduation Program Criteria

The utilization analysis identified areas where larger MWBE firms were successfully winning multiple large prime contracts. The City should consider a graduation program for MWBE firms once they have scaled their businesses to the point where there are no barriers to competing. The City currently uses the Small Business Administration size standards to determine whether a firm graduates out of its program. However, this standard may not accurately reflect the economic landscape and challenges faced by businesses at the local level. Local size standards can be crafted to align with the economic conditions, industry makeup, and business environment of the Houston region. This ensures that the graduation criteria are more relevant and reflective of the challenges and opportunities faced by MWBE firms operating within the community. Furthermore, tailoring the M/WBE graduation criteria to local dynamics can aid in stimulating economic growth and supporting small businesses. This ensures that contracting opportunities are accessible to a broader range of local vendors, thereby maximizing the socio-economic impact of the City's spending. These standards can be reviewed during recertification or a routine audit to confirm continued eligibility in the City's programs.

Remedy F: Expand SBE Program

The City should be commended on the implementation of their SBE Program for construction contracts. They should also be commended on the policy flexibility to meet MWBE goals with SBE firms. Small

Business Enterprise programs have more flexibility to increase the economic mobility of businesses in the marketplace where the City does business. As such, the City should expand the SBE Program to all industries to which it procures goods and services as an economic tool to ensure that all businesses regardless of race or ethnicity or gender have an opportunity to compete in the city's economy.

Remedy G: Expand the Office of Business Opportunity Staff

The City of Houston is a significant entity, and the Office of Business Opportunity (OBO) plays a crucial role in fostering economic mobility for businesses in the marketplace. One key responsibility of the OBO is identifying minority, women, disadvantaged, and other such firms through certification. Feedback collected through qualitative data analysis highlights that firms seeking certification or recertification often face lengthy waiting periods for approval. To address this issue, additional OBO staff will be allocated to expedite the certification process.

Moreover, the presence of more OBO personnel is essential for extending contract compliance, goal setting, and outreach to the business community. Additionally, internal departmental support is required to fulfill these tasks effectively.

Remedy H: M/WBE Program Sunset

The City should continue the review of the M/W/D/ACDBE Programs to determine if an evidentiary basis to continue these programs exists every five years and that it should be continued only if there is strong evidence that discrimination continues to disadvantage M/WBEs in the relevant market area. The Program should be reevaluated prior to the sunset date in 2030.

8.4 Conclusions

As documented throughout the Disparity Study, there were areas of disparities in the public sector utilization and broadly in the private sector for MWBEs in the City's business markets. There is also qualitative data that suggested discrimination was prevalent among MWBEs in the marketplace.

The analysis of the U.S. Census 2012 SBO data, 2017 ABS data, and the PUMS 2016-2020 data demonstrate that significant marketplace discrimination exists for MWBE firms operating in the private sector within the City's market area. This evidence of passive discrimination coincides with disparities observed in public sector contracting that illustrate that discriminatory inequities exist in the City's Market Area. Thus, the City may have a compelling interest in implementing remedies to address these gaps.