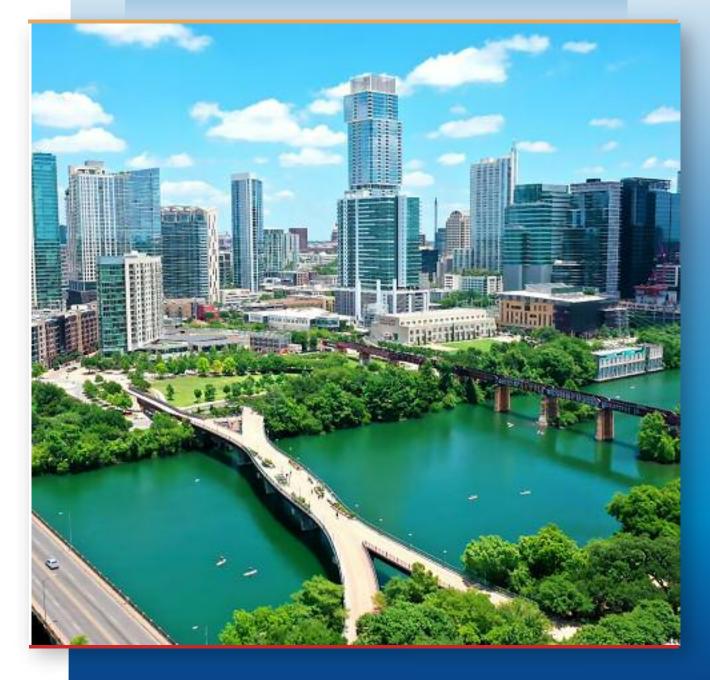
City of Austin Disparity Study 2022









CITY OF AUSTIN DISPARITY STUDY

2022

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About the Study Team

Colette Holt & Associates ("CHA"), is a national law and consulting firm specializing in issues related to Minority, Women and Disadvantaged Business Enterprise programs, business diversity initiatives, and affirmative action issues. The firm has conducted court-approved disparity studies and designed court-approved programs for over 30 years, including for numerous governments. CHA also provides training, monitoring and investigative services across the country to agencies and businesses. CHA is led by Colette Holt, J.D., the founding principal of Colette Holt & Associates and a nationally recognized attorney and expert. Ms. Holt is also a frequent expert witness, and a media author, on these issues. In addition to Ms. Holt, the firm consists of Steven C. Pitts, Ph. D., who serves as the team's economist and statistician; Ilene Grossman, B.S., Project Administrator; Glenn Sullivan, B.S., Director of Technology; Victoria Farrell, MBA, Director Qualitative Data Collection; and Joanne Lubart, J.D., Associate Counsel.

Cultural Strategies, Inc. ("CS"), headed by President Sebastian Puente, is an Austin certified MBE focusing on important civic projects and education campaigns for local institutions or private enterprises. Founded in 2009, CS provides effective community engagement strategies for an ever more multicultural Central Texas. With rich experience in multicultural and multilingual marketing, advertising, outreach, and communications, CS helps build effective communications and outreach strategies for respected institutions in a variety of industries such as local government, public services, health care, education, nonprofits and private businesses.

Pink Consulting, a City of Austin certified MWBE, provides communications services on public and private projects. Founded in 1997, the firm focuses on the development and implementation of community outreach initiatives for governments, private firms, and community based and neighborhood organizations, with emphasis in minority communities. Principal Bobbie Garza-Hernandez possesses over 30 years of experience with public participation processes, strategic planning, marketing, fundraising and event/conference planning and coordination in the Austin and Central Texas communities

Adisa Communications, founded in 1995 by its president and CEO, Shuronda Robinson, is a City of Austin MWBE certified public involvement and communications firm. The firm provides a full spectrum of public involvement and communications services. Adisa has led public sector, nonprofit, and private sector communications and outreach campaigns to successful completion through creative public involvement facilitation service.

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Table of Contents

I. Executive Summary	. 1
A. Summary of Strict Constitutional Standards Applicable to the City of Austin's MBE/WBE Program	. 1
B. Contract Data Analyses of the City of Austin's Contracts	. 3
C. Analysis of Disparities in the Austin Area Economy	. 9
 D. Qualitative Evidence of Race and Gender Barriers in the City of Austin's Market Area 1. Business Owner and Stakeholders Interviews	11
	11
II. Legal Standards for the City of Austin's Minority- and Woman-owned	17
Business Enterprise Program	
A. Summary of Constitutional Equal Protection Standards.	
B. Elements of Strict Constitutional Scrutiny	17
C. Establishing a "Strong Basis in Evidence" for the City of Austin's Program for	
Minority- and Woman-Owned Businesses	
1. Define the City of Austin's Market Area	
2. Determine the City of Austin's Utilization of MBEs and WBEs.	
 Determine the Availability of MBEs and WBEs in the City of Austin's Market Area Examine Disparities between the City of Austin's Utilization of MBEs and WBEs and 	24
MBE and WBE Availability	29
5. Analyze Economy-Wide Evidence of Race- and Gender-Based Disparities in the City of Austin's	
Market	31
6. Evaluate Anecdotal Evidence of Race- and Gender-Based Barriers to Equal Opportunities in	
the Austin Market	
D. Narrowly Tailoring an MBE/WBE Program for the City of Austin	
1. Consider Race- and Gender-Neutral Remedies	
2. Set Targeted MBE and WBE Goals 3. Ensure Flexibility of Goals and Requirements	
4. Review Program Eligibility Over-Inclusiveness and Under-Inclusiveness	
5. Evaluate the Burden on Third Parties	
6. Examine the Duration and Review of the Program	

III. City of Austin's Minority- and Woman-owned Business Enterprise

Program	43
A. City of Austin's Minority- and Woman-Owned Business Enterprise Program .	43
1. Program History, Authority and Purpose	43

2. Program Elements and Administration	44
3. Race- and Gender-Neutral Measures to Ensure Equal Opportunity for All Contractors	46
4. MBE/WBE Program Eligibility Standards and Process	
5. MBE and WBE Goals	
6. MBE/WBE Program Solicitation Review and Award Process	
a. MBE/WBE Compliance Plan Policies and Procedures.	
b. Counting MBE/WBE Participation Towards Contract Goals	
7. Commercially Useful Function Determinations	
8. Monitoring Contract Performance	
9. Changes in Compliance Plans	
10. Audits and Records. 11. Post-Award Progressive Sanctions	
12. Training and Supportive Services	
13. Outreach	
14. Staff Training.	
B. Experiences with the City of Austin's MBE/WBE Program	
1. Business Owner Interviews 1.	
a. Obtaining City of Austin Work	
b. MBE/WBE Program Administration	
c. Capacity Building Initiatives	
d. Meeting MBE/WBE Contract Goals	
2. Business Owner Survey Comments.	
a. Obtaining City of Austin Work	
	0/
b. Capacity Building Initiatives	
C. Conclusion	
C. Conclusion	90
C. Conclusion	90 . 93
C. Conclusion	90 93
C. Conclusion	90 93 93 94
C. Conclusion	90 ••••••••••••••••••••••••••••••••••••
C. Conclusion	90 ••••••••••••••••••••••••••••••••••••
C. Conclusion	90 ••••••••••••••••••••••••••••••••••••
C. Conclusion	90 93 93 94 94 94 94 94 94 94 94 94
C. Conclusion	90 93 93 94 94 94 94 94 104 106
C. Conclusion	90 93 93 94 94 94 94 94 104 106 130
C. Conclusion	90 93 93 94 94 94 94 94 104 106 130 130
C. Conclusion	90 93 93 94 94 94 94 94 104 106 130 130 131
C. Conclusion. IV. Contract Data Analysis for the City of Austin	90 93 93 94 94 94 94 94 104 106 130 130 131 147
C. Conclusion. IV. Contract Data Analysis for the City of Austin A. Contract Data Overview. B. Methodological Framework C. The City's Geographic and Product Market . 1. The Final Contract Data File. 2. The City's Geographic Market . D. The City's Utilization of MBEs and WBEs in its Geographic and Product Market . E. The Availability of MBEs and WBEs in the City's Geographic and Product Market . 1. The Methodological Framework . 2. The Availability Data and Results . 3. Analysis of the Concentration of Contract Dollars among Firms . F. Disparity Analysis .	90 93 93 94 94 94 94 94 94 104 106 130 130 131 147 161
C. Conclusion. IV. Contract Data Analysis for the City of Austin A. Contract Data Overview. B. Methodological Framework C. The City's Geographic and Product Market 1. The Final Contract Data File. 2. The City's Geographic Market. D. The City's Utilization of MBEs and WBEs in its Geographic and Product Market. E. The Availability of MBEs and WBEs in the City's Geographic and Product Market . 1. The Methodological Framework. 2. The Availability Data and Results 3. Analysis of the Concentration of Contract Dollars among Firms.	90 93 93 94 94 94 94 94 94 104 106 130 130 131 147 161
 C. Conclusion. IV. Contract Data Analysis for the City of Austin A. Contract Data Overview. B. Methodological Framework C. The City's Geographic and Product Market 1. The Final Contract Data File. 2. The City's Geographic Market. D. The City's Utilization of MBEs and WBEs in its Geographic and Product Market. E. The Availability of MBEs and WBEs in the City's Geographic and Product Market . 1. The Methodological Framework. 2. The Availability Data and Results 3. Analysis of the Concentration of Contract Dollars among Firms F. Disparity Analysis G. Conclusion. 	90 93 93 94 94 94 94 94 94 94 104 106 130 131 131 147 161 171
C. Conclusion. IV. Contract Data Analysis for the City of Austin A. Contract Data Overview. B. Methodological Framework C. The City's Geographic and Product Market . 1. The Final Contract Data File. 2. The City's Geographic Market . D. The City's Utilization of MBEs and WBEs in its Geographic and Product Market . E. The Availability of MBEs and WBEs in the City's Geographic and Product Market . 1. The Methodological Framework . 2. The Availability Data and Results . 3. Analysis of the Concentration of Contract Dollars among Firms . F. Disparity Analysis .	90 93 93 94 94 94 94 94 94 104 106 130 130 131 131 147 161 171 161 171

B. Disparate Treatment in the City of Austin Marketplace: Evidence from the	
Census Bureau's 2015 - 2019 American Community Survey	175
1. All Industries Combined in the Austin Metropolitan Area	178
2. The Construction Industry in the Austin Metropolitan Area	181
3. The Construction-Related Services Industry in the Austin Metropolitan Area	183
4. The Goods Industry in Austin Metropolitan Area	185
5. The Services Industry in Austin Metropolitan Area	
6. The Information Technology Industry in the Austin Metropolitan Area	189
7. Conclusion	191
C. Disparate Treatment in the City of Austin Area Marketplace: Evidence from the	
Census Bureau's 2017 Annual Business Survey	192
1. All Industries	194
2. Construction Industry	198
3. Professional, Scientific and Technical Services Industry	199
4. Goods Industry	200
5. Services Industry	201
6. Conclusion	201
D. Evidence of Disparities in Access to Business Capital	201
1. Federal Reserve Board Small Business Credit Surveys	
a. 2021 Small Business Credit Survey.	
b. 2018 Small Business Credit Survey	203
i. Employer firms	203
ii. Non-employer firms	204
c. 2016 Small Business Credit Surveys	205
2. The 2016 Report on Minority-Owned Businesses	205
a. Demographics	
b. Profitability Performance Index	
c. Financial and Debt Challenges/Demands	
d. Business Location Impact	
e. Non-employer Firms	
3. The 2016 Report on Woman-Owned Businesses	208
a. Firm Characteristics: Woman-Owned Firms Start Small and Remain Small and	200
Concentrate in Less Capital-Intensive Industries	
b. Profitability Challenges and Credit Risk Disparities	
c. Financial Challenges During the Prior Twelve Months	
d. Debt Differences	
e. Demands for Financing	
g. Lender Satisfaction	
4. 2021 Report on Firms Owned by People of Color	
a. Overview.	
b. Performance and Challenges	
c. Emergency Funding	
d. Debt and Financing	
e. Findings for Non-employer Firms.	
5. 2020 Small Business Administration Loans to African American Businesses	

a. 2010 Minority Business Development Agency Report	214
b. Federal Reserve Board Surveys of Small Business Finances	216
6. Other Reports	216
E. Evidence of Disparities in Access to Human Capital	217
F. Conclusion	217

•	
A. Business Owner Interviews	222
1. Discriminatory Attitudes and Negative Perceptions of Competence	222
2. Exclusion from Industry Networks	
3. Gender Bias and Hostile Work Environments	225
4. Barriers to Access to Capital	226
B. Anecdotal Survey of Austin Area Firms	226
1. Respondents' Profiles	
2. Discriminatory Attitudes and Negative Perceptions of Competence	
3. Exclusion from Industry Networks	
4. Access to Financial Supports	
5. Obtaining Work on an Equal Basis	
6. Capacity for Growth	
7. Prompt Payment.	
8. Capacity Development and Participation Incentives	
C. Written Survey Responses	
1. Systemic Racial Exclusion	
2. Discriminatory Attitudes and Negative Perceptions of Competence	
3. Gender Bias and Barriers 4. Exclusion from Industry Networks	
5. Access to Contract Opportunities	
6. Financial Barriers to Contract Opportunities	
7. Barriers to Equal Contract Terms	
D. Conclusion	
Appendix A:	
Further Explanation of the Multiple Regression Analysis	
Appendix B:	254
Further Explanation of the Probit Regression Analysis	
Appendix C:	
Significance Levels	253
Appendix D:	
Unweighted and Weighted Availability	255
Appendix E:	
Qualitative Evidence from Texas Disparity Studies	250
Quantative Evidence nonnieras Dispanty studies	

List of Tables

Table 1-1: Final Contract Data File 3
Table 1-2: Final Contract Data File Net Dollar Value 4
Table 1-3: Distribution of Contract Dollars by Race and Gender.5(share of total dollars)
Table 1-4: Summary of Utilization of Contract Dollars by Race and Gender 5
(share of total dollars)
Table 1-5: Aggregated Unweighted MBE and WBE Availability. 6
Table 1-6: Aggregated Weighted MBE and WBE Availability. 6
Table 1-7: Disparity Ratios by Demographic Group 7
Table 1-8: Comparing the Share of All Spending Received by Each MBE/WBE Group in the Groups'
Three Leading NAICS Codes to The Share of All Spending Received by Non-MBEs/WBEs
in those NAICS Codes
Table 4-1: Final Contract Data File 93
Table 4-2: Final Contract Data File Net Dollar Value 93
Table 4-3: Industry Dollars Distribution of City Contracts by Percentage 95
Table 4-4: County Distribution of Contract Dollars within the City's Geographic Market 105
Table 4-5: NAICS Code Distribution of Contract Dollars. 106
in the City's Constrained Product Market
Table 4-6: Distribution of Contract Dollars by Race and Gender (total dollars)
Table 4-7: Distribution of Contract Dollars by Race and Gender. 123
(share of total dollars)
Table 4-8: Unweighted MBE and WBE Availability for the City Contracts
Table 4-9: Distribution of the City Spending by NAICS Code (the Weights)
Table 4-10: Aggregated Weighted Availability for the City Contracts. 147
Table 4-11: Comparison of the Share of the City Spending Captured by the Top Three NAICS Codes
for Each Demographic Group148
Table 4-12: The Top Three the City Spending NAICS Codes for Each Demographic Group 148
Table 4-13: Three NAICS Codes where Black Firms Received the Most Spending. 151
Table 4-14: Comparison of Black and non-MBE/WBE Firm Concentration 151
NAICS Code 238190: Other Foundation, Structure, and Building Exterior Contractors
Table 4-15: Comparison of Black and non-MBE/WBE Firm Concentration 151
NAICS Code 484220: Specialized Freight (except Used Goods) Trucking, Local
Table 4-16: Comparison of Black and non-MBE/WBE Firm Concentration 152
NAICS Code 561320: Temporary Help Services
Table 4-17: Three NAICS Codes where Hispanic Firms Received the Most Spending
Table 4-18: Comparison of Hispanic and Non-MBE/WBE Firm Concentration 153
NAICS Code 562111: Solid Waste Collection
Table 4-19: Comparison of Hispanic and Non-MBE/WBE Firm Concentration 153
NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors

Table 4-20: Comparison of Hispanic and Non-M/BEWBE Firm Concentration154NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors
Table 4-21: Three NAICS Codes where Asian Firms Received the Most Spending 155
Table 4-22: Comparison of Asian and Non-MBE/WBE Firm Concentration 155
NAICS Code 541511: Custom Computer Programming Services
Table 4-23: Comparison of Asian and Non-MBE/WBE Firm Concentration 155
NAICS Code 541330: Engineering Services
Table 4-24: Comparison of Asian and Non-MBE/WBE Firm Concentration 156
NAICS Code 561320: Temporary Help Services
Table 4-25: Three NAICS Codes where Native American Firms Received the Most Spending 157
Table 4-26: Comparison of Native American and Non-MBE/WBE Firm Concentration 157
NAICS Code 444190: Other Building Material Dealers
Table 4-27: Comparison of Native American and Non-MBE/WBE Firm Concentration 158
NAICS Code 561320: Temporary Help Services
Table 4-28: Comparison of Native American and Non-MBE/WBE Firm Concentration 158
NAICS Code 237310: Highway, Street, and Bridge Construction
Table 4-29: Three NAICS Codes where White Woman Firms Received the Most Spending 159
Table 4-30: Comparison of White Woman and Non-MBE/WBE Firm Concentration 159
NAICS Code 561320: Temporary Help Services
Table 4-31: Comparison of White Woman and Non-MBE/WBE Firm Concentration 160
NAICS Code 541511: Custom Computer Programming Services
Table 4-32: Comparison of White Woman and Non-MBE/WBE Firm Concentration 160
NAICS Code 238390: Other Building Finishing Contractors
Table 4-33: Disparity Ratios by Demographic Group 162
Table 4-34: Targeted NAICS Codes for Further Exploration. 163
Table 4-35: Comparing Hispanic and Non-MBE/WBE Outcomes 164
NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors
(NAICS Code Weight of All the City Spending: 8.6%)
Table 4-36: Comparing Hispanic and Non-MBE/WBE Outcomes 165
NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors
(NAICS Code Weight of All the City Spending: 7.2%)
Table 4-37: Comparing Hispanic and Non-MBE/WBE Outcomes 165
NAICS Code 541330: Engineering Services
(NAICS Code Weight of All the City Spending: 4.7%)
Table 4-38: Targeted NAICS Codes for Further Exploration. 166
Table 4-39: Comparing Asian and Non-MBE/WBE Outcomes 167
NAICS Code 541511: Custom Computer Programming Services
(NAICS Code Weight of All the City Spending: 5.7%)
Table 4-40: Comparing Asian and Non-MBE/WBE Outcomes 167
NAICS Code 541330: Engineering Services
(NAICS Code Weight of All the City Spending: 4.7%)
Table 4-41: Targeted NAICS Codes for Further Exploration. 168
Table 4-42: Comparing White Woman and Non-MBE/WBE Outcomes 169
NAICS Code 541511: Custom Computer Programming Services
(NAICS Code Weight of All the City Spending: 5.7%)

Table 4-43: Comparing White Woman and Non-MBE/WBE Outcomes 169 NAICS Code 541511: Custom Computer Programming Services (NAICS Code 541511: Custom Computer Programming Services
(NAICS Code Weight of All the City Spending: 5.7%)
Table 4-44: Comparing White Woman and Non-MBE/WBE Outcomes 170
NAICS Code 541330: Engineering Services
(NAICS Code Weight of All the City Spending: 4.7%)
Table 5-1: Business Formation Rates 179
All Industries, 2015 - 2019
Table 5-2: Business Formation Probabilities Relative to White Males
All Industries, 2015 - 2019
Table 5-3: Wage Differentials for Selected Groups Relative to White Men 180
All Industries, 2015 - 2019
Table 5-4: Business Earnings Differentials for Selected Groups Relative to White Men
All Industries
Table 5-5: Business Formation Rates,
Construction, 2015 - 2019
Table 5-6: Business Formation Probability Differentials for Selected Groups 182
Relative to White Men, Construction, 2015 - 2019
Table 5-7: Wage Differentials for Selected Groups Relative to White Men
Construction, 2015 - 2019
Table 5-8: Business Earnings Differentials for Selected Groups Relative to White Men 183
Construction, 2015 - 2019
Table 5-9: Business Formation Rates 184
Construction-Related Services, 2015 - 2019
Table 5-10: Business Formation Probability Differentials for Selected Groups 184
Relative to White Men, Construction-related Services, 2015 - 2019
Table 5-11: Wage Differentials for Selected Groups Relative to White Men
Construction-Related Services, 2015 - 2019
Table 5-12: Business Earnings Differentials for Selected Groups Relative to White Men 185
Table 5-12: Construction-related Services, 2015 - 2019 185
Table 5-12: Construction-related services, 2013 - 2019 185 Table 5-13: Business Formation Rates. 186
Goods, 2015 - 2019
•
Table 5-14: Business Formation Probabilities Relative to White Males 186 186 186
Goods, 2015 - 2019
Table 5-15: Wage Differentials for Selected Groups Relative to White Men. 187
Goods, 2015 - 2019
Table 5-16: Business Earnings Differentials for Selected Groups Relative to White Men 187
Goods, 2015 - 2019
Table 5-17: Business Formation Rates. 188
Services, 2015 - 2019
Table 5-18: Business Formation Probability Differentials for Selected Groups 188
Relative to White Men, Services, 2015 - 2019
Table 5-19: Wage Differentials for Selected Groups Relative to White Men. 189
Services, 2015 - 2019

Table 5-20: Business Earnings Differentials for Selected Groups Relative to White Men 189Services, 2015 - 2019
Table 5-21: Business Formation Rates190Information Technology, 2015 - 2019
Table 5-22: Business Formation Probability Differentials for Selected Groups190Relative to White Men, Information Technology, 2015 - 2019
Table 5-23: Wage Differentials for Selected Groups Relative to White Men
Table 5-24: Business Earnings Differentials for Selected Groups Relative to White Men 191Information Technology, 2015 - 2019
Table 5-25: Two-Digit NAICS Code Definition of Sector 194
Table 5-26: Demographic Distribution of Sales and Payroll Data – Aggregated Groups
Table 5-27: Disparity Ratios of Firm Utilization Measures197All Industries, 2017
Table 5-28: Disparity Ratios – Aggregated Groups198Construction, 2017
Table 5-29: Disparity Ratios – Aggregated Groups199Professional, Scientific and Technical Services, 2017
Table 5-30: Disparity Ratios – Aggregated Groups200Goods, 2017
Table 5-31: Disparity Ratios – Aggregated Groups 201 Services, 2017
Table 6-1: Distribution of race and gender of survey respondents. 227

I. EXECUTIVE SUMMARY

Colette Holt & Associates ("CHA") was retained by the City of Austin ("City") to perform a disparity study examining its Minority-owned Business Enterprise ("MBE") and Woman-owned Business Enterprise ("WBE," collectively, "MBE/WBE") Program for locally funded contracts. In this Study, we determined the City's utilization of MBEs and WBEs during fiscal years 2013 through 2018; the availability of these firms as a percentage of all firms in the City's geographic and industry market areas by funding source; and any disparities between the City's utilization of MBEs/WBEs and MBE/ WBE availability for City contacts. We further analyzed disparities in the Austin Metropolitan Area and the wider Texas economy, where contracting affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We also gathered qualitative data about the experiences of MBEs/WBEs in obtaining City contracts and associated subcontracts. Based on these findings, we evaluated the MBE/WBE Program for conformance with constitutional standards, national best practices.

The methodology for this Study embodies the constitutional principles of *City of Rich-mond v. J.A. Croson Co.*,¹ Fifth Circuit Court of Appeals case law, and best practices for designing race- and gender-conscious programs. The CHA approach has been specifically upheld by the federal courts. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies.

A. Summary of Strict Constitutional Standards Applicable to the City of Austin's MBE/WBE Program

To be effective, enforceable, and legally defensible, a race-based program for public sector contracts must meet the judicial test of constitutional "strict scrutiny". Strict scrutiny is the highest level of judicial review. The City of Austin must meet this test to ensure any race- and gender-conscious program is in legal compliance.

Strict scrutiny analysis has two prongs:

 The government must establish its "compelling interest" in remediating race discrimination by current "strong evidence" of the persistence of discrimination. Such evidence may consist of the entity's "passive participation" in a system of racial exclusion.

^{1.} City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

2. Any remedies adopted must be "narrowly tailored" to that discrimination; the program must be directed at the types and depth of discrimination identified.²

The compelling governmental interest prong has been met through two types of proof:

- 1. Statistical evidence of the underutilization of MBEs/WBEs by the agency and/ or throughout the agency's geographic and industry market area compared to their availability in the market area.
- 2. Anecdotal evidence of race- or gender-based barriers to the full and fair participation of MBEs and WBEs in the market area and in seeking contracts with the agency. Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, and other information.

The narrow tailoring prong has been met by satisfying five factors to ensure that the remedy "fits" the evidence:

- 1. The necessity of relief;
- 2. The efficacy of race-neutral remedies at overcoming identified discrimination;
- 3. The flexibility and duration of the relief, including the availability of waiver provisions;
- 4. The relationship of numerical goals to the relevant market; and
- 5. The impact of the relief on the rights of third parties.

The DBE program for United States Department of Transportation funded contacts has been evaluated under a similar framework. The program regulations were first revised in 1999 to meet the new test imposed by the US. Supreme Court in *Adarad Constructors, Inc. v. Peña*.³

Most federal courts, including the Fifth Circuit, have subjected preferences for WBEs to "intermediate scrutiny". Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related to the objective".⁴ The quantum of evidence necessary to satisfy intermediate scrutiny is

applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program or held that the results would be the same under strict scrutiny.

^{2.} Croson, 488 U.S. 469 (1989).

^{3.} Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) ("Adarand III").

^{4.} *Cf. United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).

Proof of the negative effects of economic factors on MBEs and WBEs and the unequal treatment of such firms by actors critical to their success will meet strict scrutiny. Studies have been conducted to gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as "disparity studies" because they analyze any disparities between the opportunities and experiences of minority- and woman-owned firms and their actual utilization compared to White male-owned businesses. Specific evidence of discrimination or its absence may be direct or circumstantial and should include economic factors and opportunities in the private sector affecting the success of MBEs and WBEs. High quality studies also examine the elements of the agency's program to determine whether it is sufficiently narrowly tailored.

B. Contract Data Analyses of the City of Austin's Contracts

The Study examined the City's contract data from 2013 through 2018. The Initial Contract Data File contained 4,737 contracts. Because of the large number of contracts, CHA constructed a random sample of 1,069 contracts.

In order to conduct the analysis of the sample, we constructed all the fields necessary for our analysis where they were missing in the City's contract records (*e.g.*, industry type; zip codes; six-digit North American Industry Classification System ("NAICS") codes of prime contractors and subcontractors; MBE/WBE subcontractor information, including payments, race, gender; etc. After we constructed all the fields necessary that were missing in the City's records, we developed the Final Contract Data File ("FCDF") of the sampled contracts for analysis. This File contained 1002 contracts with complete data for analysis. Tables 1-1 and 1-2 provide data on the FCDF.

Contract Type	Total Contracts	Share of Total Contracts
Prime Contracts	1,002	54.3%
Subcontracts	842	45.7%
TOTAL	1,844	100.0%

Table 1-1: Final Contract Data File

Source: CHA analysis of City of Austin data

Business Type	Total Contract Dollars	Share of Total Contract Dollars
Prime Contracts	\$826,453,073.73	76.8%
Subcontracts	\$249,783,337.28	23.2%
TOTAL	\$1,076,236,411.01	100.0%

Table 1-2: Final Contract Data File Net Dollar Value

Source: CHA analysis of City of Austin data

There were 222 North American Industry Classification System ("NAICS") codes in the FCDF.

Prior to the analysis of the City's utilization of MBEs and WBEs, courts require and agency to determine the geographic market within which it operates to determine the geographic market area, we applied the national standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the FCDF.⁵ Firm location was determined by zip code and aggregated into counties as the geographic unit. Contracts awarded to firms located in the State of Texas accounted for 90.0% of all dollars during the study period. The 19 counties within the four larger metropolitan areas in the state – Austin, San Antonio, Dallas-Fort Worth, and Houston – captured 92.2% of the state dollars and 82.9% of the entire FCDF. Therefore, these 19 counties were determined to be the geographic market for the City, and we limited our analysis to firms in these counties.

The next step was to determine the dollar value of the City's utilization of MBEs and WBEs as measured by payments to prime firms and subcontractors and disaggregated by race and gender.⁶ Table 1-3 presents data on the City's utilization of MBEs and WBEs in those NAICS codes, measured in percentage of contract dollars for fiscal years 2013 through 2018. Details are provided in Chapter IV. Results have been rounded for readability.

^{5.} J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, National Academies of Sciences, Engineering, and Medicine, 2010, at p. 29 ("*National Disparity Study Guidelines*").

^{6.} For our analysis, the term "M/WBE" includes firms that are certified by government agencies and minority- and womanowned firms that are not certified.

Percentage Distribution of City Spending	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
TOTAL	1.7%	5.8%	2.0%	0.1%	9.5%	6.8%	16.3%	83.7%	100.0%

Table 1-3: Distribution of Contract Dollars by Race and Gender

(share of total dollars)

Source: CHA analysis of the City of Austin data

To determine the geographic market area, we applied the standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the FCDF.⁷ Firm location was determined by zip code and aggregated into counties as the geographic unit. Contracts awarded to firms located in the State of Texas accounted for 90.0% of all dollars during the study period. The 19 counties within the four larger metropolitan areas in the state – Austin, San Antonio, Dallas-Fort Worth, and Houston – captured 92.2% of the state dollars and 82.9% of the entire FCDF. Therefore, these 19 counties were determined to be the geographic market for the City, and we limited our analysis to firms in these counties.

The next step was to determine the dollar value of the City's utilization of MBEs and WBEs as measured by payments to prime firms and subcontractors and disaggregated by race and gender.⁸

Table 1-4 presents the utilization of contract dollars for fiscal years 2013 through 2018. Details are provided in Chapter IV.

Table 1-4: Summary of Utilization of Contract Dollars by Race and Gender (share of total dollars)

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non- M/WBE	Total
TOTAL	1.7%	5.8%	2.0%	0.1%	9.5%	6.8%	16.3%	83.7%	100.0%

Source: CHA analysis of the City of Austin data

Using the modified "custom census" approach to estimating availability and the further assignment of race and gender using the FCDF, the Master M/W/DBE Directory and other sources, we determined the unweighted availability of MBEs and WBEs in the City's market area. Table 1-5 presents these data. For further

^{7. &}quot;National Disparity Study Guidelines", at p. 29.

^{8.} For our analysis, the term "M/WBE" includes firms that are certified by government agencies and minority- and womanowned firms that are not certified.

explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.⁹

Table 1-5: Aggregated Unweighted MBE and WBE Availability

Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non- M/WBE	Total
0.9%	1.0%	0.7%	0.1%	2.7%	4.7%	7.3%	92.7%	100.0%

Source: CHA analysis of the City of Austin data

We next determined the aggregated availability of MBEs and WBEs, weighted by the City's spending in its geographic and industry markets. Table 1-6 presents these results. The overall, weighted M/WBE availability result can be used by the City to determine its overall, aspirational goal.

Table 1-6: Aggregated Weighted MBE and WBE Availability

Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non- M/WBE	Total
1.5%	4.7%	1.4%	0.4%	8.0%	6.5%	14.4%	85.6%	100.0%

Source: CHA analysis of the City of Austin data; Hoovers; CHA Master Directory

We next calculated disparity ratios for total MBE and WBE utilization compared to the total weighted availability of MBEs and WBEs, measured in dollars paid.

A *disparity ratio* is the relationship between the utilization and weighted availability, determined above. Mathematically, this is represented by:

DR = U/WA

Where DR is the disparity ratio; U is utilization rate; and WA is the weighted availability.

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to measure a result's significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80% of the availability measure. A substantively significant disparity supports the inference that the

result may be caused by the disparate impacts of discrimination.¹⁰ Second, statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the

^{9.} The USDOT "Tips for Goal Setting" urges recipients to weight their headcount of firms by dollars spent. *See* Tips for Goal-Setting in the Disadvantaged Business Enterprise Program, ttps://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

smaller the probability that it resulted from random chance alone.¹¹ A more indepth discussion of statistical significance is provided in Chapter IV and Appendix C. Table 1-7 presents the calculated disparity ratios for each demographic group. The disparity ratio for Native Americans is substantively significant.

	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non- M/WBE
Disparity Ratio	118.0%	122.1%	142.5%	20.0% [‡]	119.5%	104.4%	112.7%	97.9%

 Table 1-7: Disparity Ratios by Demographic Group

Source: CHA analysis of the City of Austin data ‡ Indicates substantive significance

Overall, we found that, compared to non-MBEs/WBEs, minority- and womanowned firms were concentrated in a different subset of industries, as described in Chapter III. Further, in some industries, only a few MBEs/WBEs received contracts in contrast to non-MBEs/WBEs. This suggests that although the City's Program has been quite successful in creating opportunities for minority and woman firms, these benefits have not been spread evenly across all groups or subindustries. We find the data as a whole support the conclusion that MBE/WBE firms have not reached parity in all aspects of the City's contracting activities compared to non-MBE/WBE firms.

It is standard CHA practice to explore any MBE or WBE disparity ratio that exceeds 100%. This is to ensure that an abnormal pattern of MBE or WBE concentration does not account for disparity ratios greater than 100%, thereby leading to the unwarranted conclusion that race- or gender-conscious remedies are no longer needed to redress discrimination against a particular socially disadvantaged group. It is possible that a group's disparity ratio that is larger than 100% might be the result of the success of a few firms and not indicative of the experiences of the broad set of firms in that group. In addition, contract dollars received by MBEs/WBEs may be concentrated in a few NAICS codes. Table 1-8 presents an overview of the top three NAICS codes where MBEs/WBEs receive contract dollars and compares these results to the results for non-MBEs/WBEs in those same NAICS codes. More detail is presented in Chapter IV.

Panel A in the Table presents the three NAICS codes where Black firms received their largest amount of contract dollars. The codes captured 53.2% of all contract

^{10.} See U.S. Equal Employment Opportunity Commission regulation, 29 C.F.R. §1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.").

^{11.} A chi-square test – examining if the utilization rate was different from the weighted availability – was used to determine the statistical significance of the disparity ratio.

dollars for Black firms. In contrast, non-MBEs/WBEs received just 2.1% of their contract dollars in these three NAICS codes. Thus, Black firms receive 25.3 times as many of their contract dollars from these three codes compare to non-MBEs/WBEs. This pattern of disproportionality is true for each MBE or WBE group as presented in Panels B through Panel E. Overall, the level of disproportionality ranges from 2.0 times for Hispanic firms to 25.3 times for Black firms

Table 1-8: Comparing the Share of All Spending Received by Each MBE/WBEGroup in the Groups' Three Leading NAICS Codes to The Share of All SpendingReceived by Non-MBEs/WBEs in those NAICS Codes

NAICS	NAICS Code Description	NAICS Code Share of MBE/ WBE Group Spending	NAICS Code Share of Non- MBE/WBE Spending	Ratio of MBE/ WBE Share to Non-MBE/WBE Share
Panel A:	NAICS Code Share of All Spending - Bl	ack Compared to N	Non-M/WBE	
238190	Other Foundation, Structure, and Building Exterior Contractors	25.5%	0.7%	
484220	Specialized Freight (except Used Goods) Trucking, Local	15.8%	0.4%	
561320	Temporary Help Services	11.9%	1.0%	
Total 3-co	ode Share of Total Group Dollars	53.2%	2.1%	25.3
Panel B:	NAICS Code Share of All Spending - Hi	spanic Compared	to Non-M/WBE	
562111	Solid Waste Collection	14.3%	1.3%	
238220	Plumbing, Heating, and Air- Conditioning Contractors	10.9%	9.4%	
238210	Electrical Contractors and Other Wiring Installation Contractors	10.4%	7.1%	
Total 3-co	ode Share of Total Group Dollars	35.6%	17.8%	2.0
Panel C:	NAICS Code Share of All Spending: As	ian Compared to N	lon-M/WBE	
541511	Custom Computer Programming Services	23.7%	5.2%	
541330	Engineering Services	12.3%	4.1%	
561320	Temporary Help Services	9.1%	1.0%	
Total 3-co	ode Share of Total Group Dollars	45.1%	10.4%	4.3
Panel D:	NAICS Code Share of All Spending - Na	ative American Co	mpared to Non-I	M/WBE
444190	Other Building Material Dealers	58.6%	2.1%	
561320	Temporary Help Services	29.2%	1.0%	

NAICS	NAICS Code Description	NAICS Code Share of MBE/ WBE Group Spending	NAICS Code Share of Non- MBE/WBE Spending	Ratio of MBE/ WBE Share to Non-MBE/WBE Share
237310	Highway, Street, and Bridge Construction	8.2%	9.3%	
Total 3-co	de Share of Total Group Dollars	96.0%	12.5%	7.7
Panel E: N	IAICS Code Share of All Spending - WI	hite Women Comp	ared to Non-M/	WBE
561320	Temporary Help Services	12.2%	1.0%	
541511	Custom Computer Programming Services	10.9%	5.2%	
238390	Other Building Finishing Contractors	8.9%	0.9%	
Total 3-co	de Share of Total Group Dollars	32.0%	7.2%	4.4

Source: CHA analysis of City of Austin data

In these targeted codes, the NAICS codes' share of overall spending was much more important for MBEs/WBEs than it was for non-MBEs/WBEs. The greater MBE/WBE reliance on these codes ranged from twice as important (comparing White women outcomes in NAICS code 238210 to non-MBE/WBE outcomes in NAICS code 238210) to almost 40 times more important (comparing White women outcomes in NAICS code 541310 to non-MBE/WBE outcomes in NAICS code 541310).

C. Analysis of Disparities in the Austin Area Economy

Evidence of the experiences of minority- and woman-owned firms outside of contracting affirmative action programs is relevant and probative of the likely results of the City adopting a race-neutral program, because contracting diversity programs are rarely imposed outside of specific government agencies. To examine the outcomes throughout the City of Austin area economy, we explored two Census Bureau datasets and the government and academic literature relevant to how discrimination in the City's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the City's prime contract and subcontract opportunities.

We analyzed the following data and literature:

• Austin Metropolitan Area data from the Census Bureau's American Community Survey from 2015 through 2019. This rich data set establishes with greater certainty any causal links between race, gender and economic outcomes. We employed a multiple regression statistical technique to examine the rates at which minorities and women form firms. In general, we found that even after considering potential mitigating factors, business formation rates by Blacks, Hispanics and White women are lower compared to White males. The data indicate that non-Whites and White women receive lower wages and Blacks and White women receive lower business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect non-Whites and White women entrepreneurs.

- Industry Data from the Census Bureau's 2017 Annual Business Survey from 2017. This dataset indicated large disparities between M/WBE firms and non-M/WBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), and the payroll of employer firms.
- Surveys and literature on barriers to access to commercial credit and the development of human capital further reports that minorities continue to face constraints on their entrepreneurial success based on race. These constraints negatively impact the ability of firms to form, to grow, and to succeed. These results support the conclusions drawn from the anecdotal interviews and analysis of the City's contract data that M/WBEs face obstacles to achieving success on contracts outside of M/WBE programs.

All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in overall marketplace discrimination without some type of affirmative intervention. This evidence supports the conclusion that the City should continue to use race-conscious contract goals to ensure a level playing field for all firms.

D. Qualitative Evidence of Race and Gender Barriers in the City of Austin's Market Area

In addition to quantitative data, anecdotal evidence of firms' marketplace experiences is relevant to evaluating whether the effects of current or past discrimination continue to impede opportunities for MBEs/WBEs such that race-conscious contract goals are needed to ensure equal opportunities to compete for City prime contracts. To explore this type of anecdotal evidence, we received input from 199 participants in small group business owner interviews. We also obtained written comments from 198 businesses that participated in an electronic survey.

1. Business Owner and Stakeholders Interviews

Many minority and woman business owners reported that while some progress has been made in integrating their firms into public and private sector contracting activities through race- and gender-conscious contracting programs, significant barriers remain.

The following are brief summaries of the most common views expressed by numerous participants.

- Many minority and woman interview participants reported that they still encounter biases, stereotypes and negative assumptions about their qualifications and competency.
- Several owners reported that being certified as an MBE/WBE often carries a stigma.
- Many MBEs/WBEs found it difficult to penetrate the industry networks necessary for entrepreneurial success.
- Several women, especially in construction, had experienced sexist attitudes and behaviors.
- Professional opportunities were sometimes explicitly denied because of gender.

2. Electronic Business Owner Survey

Results from the electronic survey were similar to those of the interviews. A little over a quarter (25.5%) reported that they still experience barriers to equal contracting opportunities; over one quarter (27.5%) said their competency was questioned because of their race or gender; and almost one fifth (17.4%) indicated they had experienced job-related sexual or racial harassment or stereotyping.

Responses to the survey's open-ended questions described these experiences in further detail. The following is a summary of the most common written responses received.

- Many minorities reported that fair opportunities to compete for contracts were not available because of systemic racial barriers.
- Many minority and woman respondents reported instances of implicit bias and subtle discriminatory attitudes that affect their ability to obtain contracting work. Their credentials and competency are routinely questioned.

- Regardless of their industry, many women reported that stereotypical assumptions about their role and authority are common.
- Many minority and woman owners felt excluded from networks necessary for success.
- Some minority and woman respondents felt that prime bidders often use them only to meet affirmative action goals.
- Many MBEs/WBEs/DBEs reported difficulties with obtaining financing and bonding that would allow them to take on more work and successfully compete.
- Some minority and woman respondents reported being charged higher pricing for materials based on their race, ethnicity and gender.

II. LEGAL STANDARDS FOR THE CITY OF AUSTIN'S MINORITY-AND WOMAN-OWNED BUSINESS ENTERPRISE PROGRAM

A. Summary of Constitutional Equal Protection Standards

To be effective, enforceable, and legally defensible, a race-based affirmative action program designed to promote equity in public sector contracting, regardless of funding source, must meet the judicial test of constitutional "strict scrutiny".¹² Strict scrutiny constitutes the highest level of judicial review.¹³ Strict scrutiny analysis is comprised of two prongs:

- 1. The government must establish its "compelling interest" in remediating race discrimination by current "strong evidence" of the persistence of discrimination. Such evidence may consist of the entity's "passive participation" in a system of racial exclusion.
- Any remedies adopted must be "narrowly tailored" to that discrimination; the program must be directed at the types and depth of discrimination identified.¹⁴

The compelling governmental interest prong has been met through two types of proof:

1. Quantitative or statistical evidence of the underutilization of minority- or woman-owned firms by the agency and/or throughout the agency's

^{12.} City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

^{13.} Strict scrutiny is used by courts to evaluate governmental action that classifies persons on a "suspect" basis, such as race. It is also used in actions purported to infringe upon fundamental rights. Legal scholars frequently note that strict scrutiny constitutes the most rigorous form of judicial review. *See, for example,* Richard H. Fallon, Jr., *Strict Judicial Scrutiny*, 54 UCLA Law Review 1267, 1273 (2007).

^{14.} Croson, 488 U.S. at 510.

geographic and industry market area compared to their availability in the market area.

2. Qualitative or anecdotal evidence of race- or gender-based barriers to the full and fair participation of minority- and woman-owned firms in the market area or in seeking contracts with the agency.¹⁵ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, and other information.

The narrow tailoring prong has been met by satisfying the following five factors. These elements ensure that the remedy "fits" the evidence:

- 1. The necessity of relief;¹⁶
- 2. The efficacy of race-neutral remedies at overcoming identified discrimination;¹⁷
- 3. The flexibility and duration of the relief, including the availability of waiver provisions;¹⁸
- 4. The relationship of numerical goals to the relevant labor market;¹⁹ and
- 5. The impact of the relief on the rights of third parties.²⁰

In Adarand v. Peña,²¹ the United States Supreme Court extended the analysis of strict scrutiny, the most exacting standard of review, to race-based federal enactments such as the United States Department of Transportation ("USDOT") Disadvantaged Business Enterprise ("DBE") program for federally assisted transportation contracts. Similar to the local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence.^{22,23}

^{15.} *Id.* at 509.

^{16.} *Id*. at 507.

^{17.} United States v. Paradise, 480 U.S. 149, 171 (1987).

^{18.} *Id*.

^{19.} *Id*.

^{20.} Croson, 488 U.S. at 506.

^{21.} Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) ("Adarand III").

^{22.} See, for example, Croson, 488 U.S. at 492-493; Adarand III, 515 U.S. at 227; see generally Fisher v. University of Texas, 133 S. Ct. 2411 (2013).

^{23.} Programs that fail to satisfy the constitutional strict scrutiny standard generally fail to meet the compelling government interest requirement, the narrow tailoring requirement, or both. Affirmative action programs are among the most heavily litigated issues involving race and the United States Constitution. Nonetheless, many of these programs meet both prongs, particularly those based upon solid statistical and anecdotal data. *See*, Mary J. Reyburn, *Strict Scrutiny Across the Board: The Effect of Adarand Constructors, Inc. v. Pena on Race-Based Affirmative Action Programs*, 45 Catholic University L. Rev. 1405, 1452 (1996).

Most federal courts, including the Fifth Circuit,²⁴ have subjected preferences for Woman-Owned Business Enterprises ("WBEs") to "intermediate scrutiny".²⁵ Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related to the objective".²⁶ The quantum of evidence necessary to satisfy intermediate scrutiny is less than that required to satisfy strict scrutiny. However, appellate courts have applied strict scrutiny to the genderbased presumption of social disadvantage in reviewing the constitutionality of the DBE program²⁷ or have held that the results would be the same under strict scrutiny.²⁸

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review referred to as "rational basis" scrutiny.^{29,30} The courts have held there are no equal protection implications under the Fourteenth Amendment of the United States Constitution for groups not subject to systemic discrimination.³¹ In contrast to strict scrutiny and to intermediate scrutiny, rational basis means the governmental action or statutory classification must be "rationally related" to a "legitimate" government interest.³² Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than that required for race- or gender-based measures to combat historic discrimination.³³

Unlike most legal challenges, the defendant bears the initial burden of producing "strong evidence" in support of its race-conscious program.³⁴ As held by the Fifth Circuit, the plaintiff must then proffer evidence to rebut the government's case, and bears the ultimate burden of production and persuasion that the affirmative

^{24.} W.H. Scott Construction Co., Inc., v. City of Jackson, Mississippi, 199 F.3d 206, 215 n.9 (5th Cir. 1999).

See, e.g., Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore and Maryland Minority Contractors Ass'n, 83 F. Supp. 2d 613, 620 (D. Md. 2000) ("Baltimore I"); W.H. Scott Construction, 199 F.3d at 206, 215; Engineering Contractors Ass'n of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895, 907-911 (11th Cir. 1997) ("Engineering Contractors II"); Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513, 1519 (10th Cir. 1994) ("Concrete Works II"); Contractors Ass'n of Eastern Pennsylvania v. City of Philadelphia, 6 F.3d 990, 1009-1011 (3rd Cir. 1993) ("Philadelphia II"); Coral Construction Co. v. King County, 941 F.2d 910, 930-931 (9th Cir. 1991).

^{26.} *Cf. United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).

^{27.} Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715, 720 (7th Cir. 2007) ("Northern Contracting III").

^{28.} Western States Paving Co., Inc. v. Washington Department of Transportation, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

^{29.} Coral Construction, 941 F. 2d at 921; see generally Equality Foundation v. City of Cincinnati, 128 F. 3d 289 (6th Cir. 1997).

^{30.} The Supreme Court first introduced this level of scrutiny in *Nebbia v. New York*, 291 U.S. 502, 537 (1934). The Court held that if laws passed have a reasonable relationship to a proper legislative purpose and are neither arbitrary nor discriminatory, the requirements of due process are satisfied.

^{31.} See generally United States v. Carolene Products Co., 304 U.S. 144 (1938).

^{32.} *Heller v. Doe*, 509 U.S. 312, 320 (1993).

^{33.} The standard applicable to status based on sexual orientation of gender identity has not yet been clarified by the courts.

^{34.} *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).

action program is unconstitutional.³⁵ "[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail."³⁶

A plaintiff "cannot meet its burden of proof through conjecture and unsupported criticism of [the government's] evidence."³⁷ To successfully rebut the government's evidence, a plaintiff must introduce "credible, particularized evidence" that rebuts the government's showing of a strong basis in evidence.³⁸ For example, in the challenge to the Minnesota and Nebraska DBE programs, "plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to, and participation in, federally assisted highway contracts. Therefore, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground."³⁹ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.⁴⁰ A plaintiff cannot rest upon general criticisms of studies or other related evidence; it must meet its burden that the government's proof is inadequate to meet strict scrutiny, rendering the legislation or government program illegal.⁴¹

To meet strict scrutiny, studies have been conducted to gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as "disparity studies" because they analyze any disparities between the opportunities and experiences of minority- and woman-owned firms and their actual utilization compared to White male-owned businesses. More rigorous studies also examine the elements of the agency's program to determine whether it is sufficiently narrowly tailored. The following is a detailed discussion of the legal parameters and the requirements for conducting studies to support legally defensible programs.

^{35.} *W. H. Scott Construction*, 199 F.3d at 219; *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000), 532 U.S. 941, cert. granted then dismissed as improvidently granted, 534 U.S. 103 (2001) ("Adarand VII").

^{36.} Engineering Contractors II, 122 F.3d at 916.

^{37.} *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (10th Cir. 2003) (*"Concrete Works IV"*).

H.B. Rowe Co., Inc. v. W. Lyndo Tippett, North Carolina DOT, et al., 615 F.3d 233, 241-242(4th Cir. 2010); Midwest Fence Corp. v. U.S. Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority, 84 F. Supp. 3d 705 (N.D. Ill. 2015), aff'd 840 F.3d 932 (7th Cir. 2016) ("Midwest Fence II").

^{39.} Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d. 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

^{40.} Coral Construction, 941 F. 2d at 921; Engineering Contractors II, 122 F.3d at 916.

^{41.} Adarand VII, 228 F.3d at 1166; Engineering Contractors II, 122 F.3d at 916; Concrete Works II, 36 F.3d at 1513, 1522-1523 ; Webster v. Fulton County, Georgia, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999), aff'd per curiam, 218 F. 3d 1267 (11th Cir. 2000); see also Wygant v. Jackson Board of Education, 476 U.S. 267, 277-278 (1986).

B. Elements of Strict Constitutional Scrutiny

In its decision in *City of Richmond v. J.A. Croson Co.*, the United States Supreme Court established the constitutional contours of permissible race-based public contracting programs. Reversing long established Equal Protection jurisprudence, ⁴² the Court, for the first time, extended the highest level of judicial examination from measures designed to limit the rights and opportunities of minorities to legislation that inures to the benefit of these victims of historic, invidious discrimination. Strict scrutiny requires that a government entity prove both its "compelling governmental interest" in remediating identified discrimination based upon "strong evidence"⁴³ and that the measures adopted to remedy that discrimination are "narrowly tailored" to that evidence. However benign the government's motive, race is always so suspect a classification that its use must pass the highest constitutional test of "strict scrutiny".

The Court struck down the City of Richmond's Minority Business Enterprise Plan ("Plan") because it failed to satisfy the strict scrutiny analysis applied to "racebased" government programs. The City's "setaside" Plan required prime contractors awarded City construction contracts to subcontract at least 30 percent of the dollar amount of contracts to one or more Minority-Owned Business Enterprises

("MBEs").⁴⁴ A business located anywhere in the nation was eligible to participate so long as it was at least 51 percent owned and controlled by minority citizens or lawfully-admitted permanent residents.

The Plan was adopted following a public hearing during which no direct evidence was presented that the City had discriminated on the basis of race in contracts or that its prime contractors had discriminated against minority subcontractors. The only evidence before the City Council was: (a) Richmond's population was 50 percent Black, yet less than one percent of its prime construction contracts had been awarded to minority businesses; (b) local contractors' associations were virtually all White; (c) the City Attorney's opinion that the Plan was constitutional; and (d) generalized statements describing widespread racial discrimination in the local, Virginia, and national construction industries.

In affirming the court of appeals' determination that the Plan was unconstitutional; Justice Sandra Day O'Connor's plurality opinion rejected the extreme positions that local governments either have *carte blanche* to enact race-based legislation or must prove their own active participation in discrimination:

^{42.} U.S. Const. Amend. XIV, §1.

^{43.} There is no precise mathematical formula to assess what rises to the level of "strong evidence".

^{44.} The City described its Plan as remedial. It was enacted to promote greater participation by minority business enterprises in public construction projects.

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment...[I] the City could show that it had essentially become a "passive participant" in a system of racial exclusion ...[it] could take affirmative steps to dismantle such a system.⁴⁵

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by notions of racial inferiority or blatant racial politics. This highest level of judicial review "smokes out" illegitimate uses of race by ensuring that the legislative body is pursuing an important enough goal to warrant use of a highly suspect tool.⁴⁶ It also ensures that the means chosen "fit" this compelling goal so closely that there is little or no likelihood that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny is designed to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.

Richmond's evidence was found to be lacking in every respect.⁴⁷ The City could not rely upon the disparity between its utilization of MBE prime contractors and Richmond's minority population because not all minority persons would be qualified to perform construction projects; general population representation is irrelevant. No data were presented about the availability of MBEs in either the relevant market area or their utilization as subcontractors on City projects.

According to Justice O'Connor, the extremely low MBE membership in local contractors' associations could be explained by "societal" discrimination or perhaps Blacks' lack of interest in participating as business owners in the construction industry. To be relevant, the City would have to demonstrate statistical disparities between eligible MBEs and actual membership in trade or professional groups. Further, Richmond presented no evidence concerning enforcement of its own anti-discrimination ordinance. Finally, the City could not rely upon Congress' determination that there has been nationwide discrimination in the construction industry. Congress recognized that the scope of the problem varies from market to market, and, in any event, it was exercising its powers under Section Five of the Fourteenth Amendment. Local governments are further constrained by the Amendment's Equal Protection Clause.

^{45. 488} U.S. at 491-92.

^{46.} See also Grutter v. Bollinger, 539 U.S. 306, 327 (2003) ("Not every decision influenced by race is equally objectionable, and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decisionmaker for the use of race in that particular context.").

^{47.} The City cited past discrimination and its desire to increase minority business participation in construction projects as the factors giving rise to the Plan.

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated "a strong basis in evidence for its conclusion that remedial action was necessary."⁴⁸

This analysis was applied only to Blacks. The Court emphasized that there was "absolutely no evidence" of discrimination against other minorities. "The random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."⁴⁹

Having found that Richmond had not presented evidence in support of its compelling interest in remediating discrimination—the first prong of strict scrutiny—the Court made two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.⁵⁰ The Court noted that the City "does not even know how many MBEs in the relevant market are qualified to undertake prime or subcontracting work in public construction projects."⁵¹

Recognizing that her opinion might be misconstrued to eliminate all race-conscious contracting efforts, Justice O'Connor closed with these admonitions:

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that nonminority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. 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. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate

^{48.} *Croson,* 488 U.S. at 510.

^{49.} Id.

^{50.} See Grutter, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

^{51.} Croson, 488 U.S. at 502.

based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.... Moreover, evidence 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.⁵²

While much has been written about *Croson*, it is worth stressing what evidence was, and was not, before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontractors and *no* evidence of the utilization of minority-owned subcontractors on City contracts.⁵³ Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court's rejection of Richmond's reliance on only the percentage of Blacks in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.⁵⁴

This argument has been rejected explicitly by some courts. In denying the plaintiff's summary judgment motion to enjoin the City of New York's Minority- and Woman-Owned Business Enterprise ("M/WBE") construction ordinance, the court stated:

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (0.67%). There were no statistics presented regarding the number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.⁵⁵

^{52.} Id. at 509 (citations omitted).

^{53.} *Id.* at 502.

^{54.} See, for example, Northern Contracting III, 473 F.3d at 723.

Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In contrast, the USDOT DBE program avoids these pitfalls. 49 C.F.R. Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*".

While strict scrutiny is designed to require clear articulation of the evidentiary basis for race-based decision-making and careful adoption of remedies to address discrimination, it is not, as Justice O'Connor stressed, an impossible test that no proof can meet. Strict scrutiny need not be "fatal in fact".

C. Establishing a "Strong Basis in Evidence" for the City of Austin's Program for Minority- and Woman-Owned Businesses

The case law on the DBE program should guide the City's Program for locally funded contracts. Whether the program is called an MBE/WBE program or a DBE program or any other moniker, the strict scrutiny test applies. As discussed, 49 C.F.R. Part 26 has been upheld by every court, and local programs for M/WBEs will be judged against this legal framework.⁵⁶ As previously noted, programs for veterans, persons with disabilities, preferences based on geographic location or truly race- and gender-neutral small business efforts are not subject to strict scrutiny but rather the lower level of scrutiny called "rational basis". Therefore, no evidence comparable to that in a disparity study is needed to enact such initiatives.

It is well established that disparities between an agency's utilization of M/WBEs and their availability in the relevant marketplace provide a sufficient basis for the consideration of race- or gender-conscious remedies. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to their success will meet strict scrutiny. Discrimination must be shown using statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experi-

^{55.} North Shore Concrete and Associates, Inc. v. City of New York, 1998 U.S. Dist. Lexis 6785, *28-29 (E.D. N.Y. 1998); see also Harrison & Burrowes Bridge Constructors, Inc. v. Cuomo, 981 F.2d 50, 61-62 (2nd Cir. 1992) ("Croson made only broad pronouncements concerning the findings necessary to support a state's affirmative action plan"); cf. Concrete Works II, 36 F.3d at 1528 (City may rely on "data reflecting the number of MBEs and WBEs in the marketplace to defeat the challenger's summary judgment motion").

^{56.} *Midwest Fence II*, 840 F.3d. at 953.

ences with discriminatory conduct, policies or systems.⁵⁷ Specific evidence of discrimination or its absence may be direct or circumstantial and should include economic factors and opportunities in the private sector affecting the success of M/WBEs.⁵⁸

Croson's admonition that "mere societal" discrimination is not enough to meet strict scrutiny is met where the government presents evidence of discrimination in the industry targeted by the program. "If such evidence is presented, it is immaterial for constitutional purposes whether the industry discrimination springs from widespread discriminatory attitudes shared by society or is the product of policies, practices, and attitudes unique to the industry... The genesis of the identified discrimination is irrelevant." There is no requirement to "show the existence of specific discriminatory policies and that those policies were more than a reflection of societal discrimination."⁵⁹

The City need not prove that it is itself guilty of discrimination to meet its burden. In upholding Denver's M/WBE construction program, the court stated that Denver can show its compelling interest by "evidence of private discrimination in the local construction industry coupled with evidence that it has become a passive participant in that discrimination...[by] linking its spending practices to the private discrimination."⁶⁰ Denver further linked its award of public dollars to discriminatory conduct through the testimony of M/WBEs that identified general contractors who used them on City projects with M/WBE goals but refused to use them on private projects without goals.

The following are the necessary disparity study elements to determine the constitutional validity of race- and gender-conscious local programs.

1. Define the City of Austin's Market Area

The first step is to determine the market area in which the City operates. *Croson* states that a state or local government may only remedy discrimination within its own contracting market area. The City of Richmond was specifically faulted for including minority contractors from across the country in its program, based on national data considered by Congress.⁶¹ Austin must therefore empirically establish the geographic and product dimensions of its contracting and procurement market area to ensure that the program meets strict scrutiny. This is a fact driven inquiry; it may or may not be the case that the market

^{57.} Adarand VII, 228 F.3d at 1166 ("statistical and anecdotal evidence are appropriate").

^{58.} Id.

^{59.} Concrete Works IV, 321 F.3d at 976.

^{60.} *Id*. at 977.

^{61.} Croson, 488 U.S. at 508.

area is the government's jurisdictional boundaries.⁶² This study employs long established economic principles to empirically establish the City's geographic and product market area to ensure that any program based on the study satisfies strict scrutiny.

A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75 percent of the agency's contract and subcontract dollar payments.⁶³ Likewise, the accepted approach is to analyze those detailed industries that make up at least 75 percent of the prime contract and associated subcontract payments for the study period.⁶⁴ This produces the utilization results within the geographic market area.

2. Determine the City of Austin's Utilization of MBEs and WBEs

The study should next determine the City's' utilization of M/WBEs in its market area. Generally, this analysis should be limited to formally procured contracts, since it is unlikely that it is realistic or useful to set goals on small dollar purchases. Developing the file for analysis involves the following steps, regardless of funding source:

- 1. Develop the Initial Contract Data File. This involves first gathering the City of Austin's records of its payments to prime contractors, and if available, associated subcontractors.
- 2. Develop the Sample Contract Data File, if necessary. If the Initial Contract Data File is too large to complete all the missing contract records, a sample should be drawn. Standard statistical procedures should be utilized that result in a sample whose basic parameters (distribution of the number of contracts and the value of contract dollars) mirror the broad industry sectors (*i.e.*, construction; construction related services; goods; and services) in the Initial Contract Data File. In addition, the total number of contracts must allow for a statistically representative sample at the 95% confidence level and a 5% confidence interval. These parameters are the norm in statistical sample procedures.
- 3. Develop the Final Contract Data File. Whatever data are missing (often race and gender ownership, North American Industry Classification System or other industry codes, work descriptions or other important information not collected by the agency) must be fully reconstructed by the consultant. While painstaking and labor intensive, this step cannot be skipped. Using surveys is unlikely to yield sufficient data, and so each

^{62.} Concrete Works II, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore "economic reality").

^{63.} J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program,* National Academies of Sciences, Engineering, and Medicine, 2010 ("*National Disparity Study Guidelines*").

^{64.} *Id*.

contract must be examined, and the record completed to ensure a full and accurate picture of the agency's activities. It is also important to research whether a firm that has an address outside the market area has a location in the market area (contract records often have far flung addresses for payments). All necessary data for at least 80% of the contract dollars in the final contract data files should be collected to ensure a comprehensive file that mirrors the City's contracting and procurement activities.

4. Determining the Geographic Market. The federal courts require that a government agency narrowly tailor its race- and gender-conscious contracting program elements to its geographic market area.⁶⁵ This element of the analysis must be empirically established ⁶⁶ and the accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry Classification System ("NAICS") codes, that make up at least 75% of the prime contract and subcontract payments for the study period.⁶⁷

3. Determine the Availability of MBEs and WBEs in the City of Austin's Market Area

Next, the study must estimate the availability of minorities and women in the City's market area to participate in the City's contracts as prime contractors and associated subcontractors. Based on the product and geographic utilization data, the study should calculate unweighted and weighted M/WBE availability estimates of ready, willing and able firms in the City's market. These results will be a narrowly tailored, dollar-weighted average of all the underlying industry availability numbers; larger weights will be applied to industries with relatively more spending and lower weights applied to industries with relatively less spending. The availability figures should be sub-divided by race, ethnicity, and gender.

The availability analysis involves the following steps:

1. <u>The development of the Merged Business Availability List</u>. Three data sets are used to develop the Merged Business Availability List:

^{65.} *Croson*, 488 U.S. at 508 (Richmond was specifically faulted for including minority contractors from across the country in its program based on the national evidence that supported the USDOT DBE program); *see* 49 C.F.R. §26.45(c); https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise ("D. Explain How You Determined Your Local Market Area.... your local market area is the area in which the sub-stantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars.").

^{66.} Concrete Works II, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore "economic reality").

^{67.} See National Disparity Study Guidelines, at 29-30.

- The firms in the M/W/DBE Master Directory. This methodology includes both certified firms and non-certified firms owned by minorities or women.⁶⁸ The Master Directory consists of all available government and private D/M/WBE directories, limited to firms within the City's geographic and product market.
- The firms contained in the City's contract data files. This will require the elimination of any duplications because a firm might have received more than one contract for work in a given NAICS code during the study period.
- Firms extracted from the Dun & Bradstreet MarketPlace/Hoovers database, using the relevant geographic and product market definitions.
- 2. <u>The estimation of unweighted availability</u>. The Merged Business Availability List will be the available universe of relevant firms for the study. This process will significantly improve the identification of minority-owned and woman-owned businesses in the business population. Race and sex must be assigned to any firm not already classified.⁶⁹ This will produce estimates of minority and woman business availability in the City's markets for each NAICS code in the product market; for woman and minority business availability for all NAICS codes combined; and for the broad industry categories of goods, services and construction. The detailed results should also be the basis for contract specific goal setting methodology.
- 3. <u>The estimation of weighted availability</u>. Using the weights from the utilization analysis, the unweighted availability should be adjusted for the share of the City's spending in each NAICS code. The unweighted availability determination will be weighted by the share of dollars the City actually spends in each NAICS code, derived from the utilization analysis. These resulting weighted availability estimates will be used in the calculation of disparity indices for Austin's locally funded contracts.

This adjustment is important for two reasons. First, disparity analyses compare utilization and availability. The utilization metrics are shares of dollars. The unweighted availability metrics are shares of firms. In order to make comparable analyses, the dollar shares are used to weight the unweighted availability. Second, any examination of the City's overall

^{68.} *Id.* at 33-34.

^{69.} We note this is an improvement over the approach described in the *National Disparity Study Guidelines*, which recommended a survey to assign classifications. While it is more labor intensive to actually assign race, gender and industry code to each firm than using a mathematical formula derived from survey results, it greatly improves the accuracy of the assignments, resulting in more narrowly tailored results.

usage of available firms must be conducted with an understanding of what NAICS codes received what share of agency spending. Absent this, a particular group's availability share (high or low) in an area of low spending would carry equal weight to a particular group's availability share (high or low) in an area of large spending.

This methodology for estimating availability is usually referred to as the "custom census" approach with refinements. This approach is favored for several reasons. As recognized by the courts and the *National Disparity Study Guide-lines*, ⁷⁰ this methodology in general is superior to other methods for at least four reasons.

- First, it provides an internally consistent and rigorous "apples to apples" comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the firms in the numerator (*e.g.*, certified M/WBEs or firms that respond to a survey) and the denominator (*e.g.*, registered vendors or the Census Bureau's County Business Patterns data).
- Second, by examining a comprehensive group of firms, it "casts a broader net" beyond those known to the agency. As held by the federal court of appeals in finding the Illinois Department of Transportation's program to be constitutional, the "remedial nature of [DBE programs] militates in favor of a method of D/M/W/SBE availability calculation that casts a broader net" than merely using bidders lists or other agency or government directories. A broad methodology is also recommended by the USDOT for the federal DBE program, which has been upheld by every court.⁷¹ A custom census is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidders lists, because it seeks out firms in the agency's market areas that have not been able to access its opportunities.
- Third, this approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications, and experience are all elements of business success where discrimination would be manifested. Several courts have held that the results of discrimination – which impact factors affecting capacity – should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority and woman firms may be smaller, newer, and otherwise less competitive than non-M/WBEs

^{70.} National Disparity Study Guidelines, at 57-58.

^{71.} See Tips for Goal Setting in the Disadvantaged Business Enterprise (DBE) Program, https://www.transportation.gov/sites/ dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf.

because of the very discrimination sought to be remedied by raceconscious contracting programs.

- Racial and gender differences in these "capacity" factors are the outcomes of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as "control" variables in a disparity study.⁷²
- Fourth, it has been upheld by every court that has reviewed it, including in the failed challenge to the Illinois Department of Transportation's DBE program⁷³ and most recently in the successful defense of the Illinois State Toll Highway's DBE program, for which we served as testifying experts.⁷⁴

Other methodologies relying only on vendor or bidder lists may overstate or understate availability as a proportion of the City's actual markets because they reflect only the results of the agency's own activities, not an accurate portrayal of marketplace behavior. Other methods of whittling down availability by using assumptions based on surveys with limited response rates or guesses about firms' capacities easily lead to findings that woman and minority businesses no longer face discrimination or are unavailable, even when the firm is actually working on agency contracts.

Many plaintiffs have argued that studies must somehow control for "capacity" of M/WBEs to perform specific agency contracts. The definition of "capacity" has varied based upon the plaintiff's particular point of view, but it has generally meant firm age, firm size (full time employees), firm revenues, bonding limits and prior experience on agency projects (no argument has been made outside of the construction industry).

This test has been rejected by the courts when directly addressed by the plaintiff and the defendant. As recognized by the courts and the *National Disparity Study Guidelines*, these capacity factors are not race- and gender-neutral variables. Discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors. In a perfectly discriminatory system, M/WBEs would have no "capacity" because they would have been prevented from developing any "capacity". That certainly would not mean that there was no discrimination or that the government must sit by helplessly and continue to award tax dollars within the "market failure" of discrimination and without recognition of systematic, institutional race- and gender-based barriers. It is these types of "capacity" variables where barriers to full and fair opportunities to compete

^{72.} For a detailed discussion of the role of capacity in disparity studies, see the *National Disparity Study Guidelines*, Appendix B, "Understanding Capacity."

^{73.} Northern Contracting III, 473 F.3d at 721.

^{74.} See generally Midwest Fence II, 840 F.3d 932; Northern Contracting III, 473 F.3d 715.

will be manifested. Capacity limitations on availability would import the current effects of past discrimination into the model, because if M/WBEs are newer or smaller because of discrimination, then controlling for those variables will mask the phenomenon of discrimination that is being studied. In short, identifiable indicators of capacity are themselves impacted and reflect discrimination. The courts have agreed. Based on expert testimony, judges understand that factors such as size and experience reflect outcomes influenced by race and gender: "M/WBE construction firms are generally smaller and less experienced *because* of discrimination."⁷⁵

To rebut this framework, a plaintiff must proffer its own study showing that the disparities disappear when whatever variables it believes are important are held constant and that controlling for firm specialization explained the disparities.⁷⁶ Significantly, *Croson* does not "require disparity studies that measure whether construction firms are able to perform a *particular contract*."⁷⁷

There are also practical reasons not to circumscribe availability through "capacity" limitations. First, there is no agreement concerning what variables are relevant or how those variables are to be measured for the purpose of examining whether race and gender barriers impede the success of minority and woman entrepreneurs. For example, a newly formed firm might be the result of a merger of much older entities or have been formed by highly experienced owners; it is unclear how such variations would shed light on the issues in a disparity study. Second, since the amount of necessary capacity will vary from contract to contract, there is no way to establish universal standards that would satisfy the capacity limitation. Third, firms' capacities are highly elastic. Businesses can add staff, rent equipment, hire subcontractors or take other steps to be able to perform a particular scope on a particular contract. Whatever a firm's capacity might have been at the time of the study, it may well have changed by the time the agency seeks to issue a specific future solicitation. Fourth, there are no reliable data sources for the type of information usually posited as important by those who seek to reduce availability estimates using capacity factors. While a researcher might have information about firms that are certified as M/WBEs or that are prequalified by an agency (which usually applies only to construction firms), there is no database for that information for non-certified firms, especially White male-owned firms that usually function as subcontractors. Any adjustment to the numerator (M/WBEs) must also be made to the denominator (all firms), as a researcher cannot assume

^{75.} Concrete Works IV, 321 F.3d at 983 (emphasis in the original).

^{76.} Conjecture and unsupported criticism of the government are not enough. The plaintiff must rebut the government's evidence and introduce "credible, particularized evidence" of its own. *See Midwest Fence II*, 840 F.3d at 942 (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony).

^{77.} Croson, 488 U.S. at 508 (emphasis in the original).

that all White male-owned firms have adequate capacity but that M/WBEs do not.

Capacity variables should be examined at the economy-wide level of business formation and earnings, discussed in Chapter V, not at the first stage of the analysis. To import these variables into the availability determination would confirm the downward bias that discrimination imposes on M/WBEs' availability and the upward bias enjoyed by non-M/WBEs. These factors should also be explored during anecdotal data collection, discussed in Chapter VI. They are also relevant to contract goal setting, where the agency must use its judgment about whether to adjust the initial goal that results from the study data based on current market conditions and current firm availability, discussed in Chapter IV.

4. Examine Disparities between the City of Austin's Utilization of MBEs and WBEs and MBE and WBE Availability

A disparity study for a local government must analyze whether there are statistically significant disparities between the availability of M/WBEs and their utilization on agency contracts.

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... In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁷⁸

This is known as the "disparity ratio" or "disparity index". A disparity ratio measures the participation of a group in the government's contracting opportunities by dividing that group's utilization by the availability of that group and multiplying that result by 100. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.⁷⁹ An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability.

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to mea-

^{78.} Croson, 488 U.S. at 509; see Webster, 51 F.Supp.2d at 1363, 1375.

^{79.} W. H. Scott Construction, 199 F.3d at 218; see also Concrete Works II, 36 F.3d at 1526-1527; O'Donnell Construction Co., Inc, v. State of Columbia, 963 F.2d 420, 426 (D.C. Cir. 1992); Cone Corporation v. Hillsborough County, 908 F.2d 908, 916 (11th Cir. 1990), cert. denied, 498 U.S. 983 (1990).

sure a result's significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80 percent of the availability measure. This is based on the Equal Employment Opportunity Commission's "80 percent rule" that a ratio less than 80% presents a *prima facie* case of discrimination by supporting the inference that the result may be caused by the disparate impacts of discrimination.⁸⁰ Second, statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone.⁸¹ A more in-depth discussion of statistical significance is provided in Appendix C.

In addition to creating the disparity ratio, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors, known as an "economy-wide" disparity analysis.⁸²

The City need not prove that the statistical inferences of discrimination are "correct". In upholding Denver's M/WBE Program, the Tenth Circuit noted that strong evidence supporting Denver's determination that remedial action was necessary need not have been based upon "irrefutable or definitive" proof of discrimination. Statistical evidence creating inferences of discriminatory motivations was sufficient and therefore evidence of market area discrimination was properly used to meet strict scrutiny. To rebut this type of evidence, the plaintiff must prove by a preponderance of the evidence that such proof does not support those inferences.⁸³

Nor must the City demonstrate that the "ordinances will *change* discriminatory practices and policies" in the local market area; such a test would be "illogical" because firms could defeat the remedial efforts simply by refusing to cease discriminating.⁸⁴

^{80. 29} C.F.R. §1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact."); see Engineering Contractors II, 122 F3d at 914.

^{81.} A chi-square test – examining if the utilization rate was different from the weighted availability - is used to determine the statistical significance of the disparity ratio.

^{82.} Northern Contracting II, 2005 U.S. Dist. LEXIS 19868 at *69 (IDOT's custom census approach was supportable because "discrimination in the credit and bonding markets may artificially reduce the number of M/WBEs").

^{83.} Concrete Works IV, 321 F. 3d at 971.

^{84.} Id. at 973 (emphasis in the original).

The City need not prove that private firms directly engaged in any discrimination in which the government passively participates do so intentionally, with the purpose of disadvantaging minorities and women.

Denver's only burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and link its spending to that discrimination.... Denver was under no burden to identify any specific practice or policy that resulted in discrimination. Neither was Denver required to demonstrate that the purpose of any such practice or policy was to disadvantage women or minorities. To impose such a burden on a municipality would be tantamount to requiring proof of discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.⁸⁵

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination; there is no need to do so to meet strict scrutiny, as opposed to an individual or class action lawsuit.⁸⁶

5. Analyze Economy-Wide Evidence of Race- and Gender-Based Disparities in the City of Austin's Market

The courts have repeatedly held that analysis of disparities in the rates at which minorities and women in the government's markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination of whether the market functions properly for all firms regardless of the race or gender of their ownership. These analyses contributed to the successful defense of Chicago's construction program. As similarly explained by the Tenth Circuit, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority

^{85.} *Id.* at 971.

^{86.} *Id*. at 973.

enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs.... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.⁸⁷

Business discrimination studies and lending formation studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing*

M/WBEs are precluded from competing for public contracts."⁸⁸ Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education", "culture" and "religion".⁸⁹

For example, in unanimously upholding the DBE Program for federal-aid transportation contracts, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.⁹⁰ The Eighth Circuit Court of Appeals took a "hard look" at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the

^{87.} Adarand VII, 228 F.3d at 1147, 1168-69.

^{88.} Id.

^{89.} Concrete Works IV, 321 F.3d at 980.

^{90.} *Id.; Western States,* 407 F.3d at 993; *Northern Contracting, Inc. v. Illinois Department of Transportation,* 2004 U.S. Dist. LEXIS 3226 at *64 (N.D. Ill., Mar. 3, 2004) ("*Northern Contracting I*").

data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.⁹¹

This analysis is especially useful for an agency such as the City of Austin which has been implementing a race- and gender-conscious program for many years, which might partially ameliorate market wide barriers through the use of contracting diversity tools.

6. Evaluate Anecdotal Evidence of Race- and Gender-Based Barriers to Equal Opportunities in the Austin Market

A study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because it is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life."⁹² Testimony about discrimination practiced by prime contractors, bonding companies, suppliers, and lenders has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects.⁹³ While anecdotal evidence is insufficient standing alone, "[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative."⁹⁴ "[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough."95

There is no requirement that anecdotal testimony be "verified" or corroborated, as befits the role of evidence in legislative decision-making as opposed

^{91.} Sherbrooke, 345 F.3d. at 970; see also, Adarand VII, 228 F.3d at 1175 (Plaintiff has not met its burden "of introducing credible, particularized evidence to rebut the government's initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.").

^{92.} International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

^{93.} Adarand VII, 228 F.3d at 1168-1172.

^{94.} Concrete Works II, 36 F.3d at 1520,1530.

to judicial proceedings. "Plaintiff offers no rationale as to why a fact finder could not rely on the State's 'unverified' anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not— indeed cannot be verified because it 'is nothing more than a witness' narrative of an incident told from the witness' perspective and including the witness' perception."⁹⁶ Likewise, the Tenth Circuit held that "Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver's witnesses or to relate their own perceptions on discrimination in the Denver construction industry."⁹⁷

D. Narrowly Tailoring an MBE/WBE Program for the City of Austin

Even if the City has a strong basis in evidence to believe that race-based measures are needed to remedy identified discrimination, the Program must still be narrowly tailored to that evidence. As discussed above, programs that closely mirror those of the USDOT DBE Program⁹⁸ have been upheld using that framework.⁹⁹ The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

- The necessity of relief; ¹⁰⁰
- The efficacy of race- and gender-neutral remedies at overcoming identified discrimination;¹⁰¹
- The relationship of numerical benchmarks for government spending to the availability of minority- and woman-owned firms and to subcontracting goal setting procedures;¹⁰²
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;¹⁰³

^{95.} Engineering Contractors of South Florida v. Metropolitan Dade County, 943 F. Supp. 1546 (S.D. Fla. 1996) ("Engineering Contractors I"). This case is one of the leading lower court cases on the sufficiency of anecdotal evidence to meet the compelling interest requirement. The record contained anecdotal complaints of discrimination by M/WBEs which described incidents in which suppliers quoted higher prices to M/WBEs than to their non-M/WBE competitors, and in which non-M/WBE prime contractors unjustifiably replaced the M/WBE subcontractor with a non-MWBE subcontractor.

^{96.} *Id.* at 1579-1580.

^{97.} Concrete Works IV, 321 F.3d at 989.

^{98. 49} C.F.R. Part 26.

^{99.} See, e.g., Midwest Fence II, 840 F.3d at 953 (upholding the Illinois Tollway's program for state funded contracts modelled after Part 26 and based on CHA's expert testimony).

^{100.} Croson at 507; Adarand III at 237-238.

^{101.} *Paradise*, at 171.

^{102.} *Id*.

- The relationship of numerical goals to the relevant market;¹⁰⁴
- The impact of the relief on third parties;¹⁰⁵ and
- The overinclusiveness of racial classifications.¹⁰⁶

1. Consider Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are necessary components of a defensible and effective M/WBE program.¹⁰⁷ The failure to seriously consider such remedies has proven fatal to several programs.¹⁰⁸ Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by the City without resorting to the use of race or gender in its decision-making. Effective remedies include unbundling of contracts into smaller units, providing technical support, and developing programs to address issues of financing, bonding, and insurance important to all small and emerging businesses.¹⁰⁹ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.¹¹⁰

The requirement that the agency must meet the maximum feasible portion of the goal through race-neutral measures, as well as estimate that portion of the goal that it predicts will be met through such measures, has been central to the holdings that the DBE program regulations meet narrow tailoring.¹¹¹ The highly disfavored remedy of race-based decision making should be used only as a last resort.

However, strict scrutiny does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious rem-

^{103.} Id.

^{104.} Id.

^{105.} Croson at 506.

^{106.} Paradise, 480 U.S. at 171 ; see also, Sherbrooke, 345 F.3d at 971-972.

^{107.} Croson, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); Associated General Contractors of Ohio v. Drabik, 214 F.3d 730, 738 (6th Cir. 2000) ("Drabik II"); Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 91 F.3d 586, 609 (3rd Cir. 1996) ("Philadelphia III") (City's failure to consider race-neutral alternatives was particularly telling); Webster, 51 F.Supp.2d at 1380 (for over 20 years County never seriously considered race-neutral remedies); cf. Aiken, 37 F.3d at 1164 (failure to consider race-neutral method of promotions suggested a political rather than a remedial purpose).

^{108.} See, e.g., Florida A.G.C. Council, Inc. v. State of Florida, Case No.: 4:03-CV-59-SPM at 10 (N. Dist. Fla. 2004) ("There is absolutely no evidence in the record to suggest that the Defendants contemplated race-neutral means to accomplish the objectives" of the statute.); Engineering Contractors II, 122 F.3d at 928.

^{109.} See 49 C.F.R. §26.51.0.

^{110.} Croson, 488 U.S. at 503 n.3; Webster, 51 F.Supp.2d at 1380.

^{111.} See, e.g., Sherbrooke, 345 F.3d. at 973.

edies may be utilized.¹¹² While an entity must give good faith consideration to race-neutral alternatives, "strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement."¹¹³

2. Set Targeted MBE and WBE Goals

Numerical goals or benchmarks for MBE and WBE participation must be substantially related to their availability in the relevant market.¹¹⁴ For example, the DBE program rule requires that the overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient's federally assisted contracts.¹¹⁵ "Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*."¹¹⁶

Goals can be set at various levels of particularity and participation. The City may set an overall, aspirational goal for its annual, aggregate spending. Annual goals can be further disaggregated by race and gender. Approaches range from a single MBE/WBE goal that includes all racial and ethnic minorities and non-minority women,¹¹⁷ to separate goals for each minority group and women.¹¹⁸

Goal setting is not an absolute science. In holding the DBE regulations to be narrowly tailored, the Eighth Circuit Court of Appeals noted that "[t]hough the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets."¹¹⁹ However, sheer speculation cannot form the basis for an enforceable measure.¹²⁰

^{112.} *Grutter*, 529 U.S. at 339.

^{113.} Coral Construction, 941 F.2d at 923.

^{114.} Webster, 51 F.Supp.2d at 1379, 1381 (statistically insignificant disparities are insufficient to support an unexplained goal of 35 percent M/WBE participation in County contracts); see also Baltimore I, 83 F.Supp.2d 613, at 621.

^{115. 49} C.F.R. §26.45 (b).

^{116.} *Id*.

^{117.} See 49 C.F.R. §26.45(h) (overall goal must not be subdivided into group-specific goals).

^{118.} See Engineering Contractors II, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

^{119.} Sherbrooke, 345 F.3d. at 972.

^{120.} Builders Ass'n of Greater Chicago v. City of Chicago, 298 F. Supp.2d 725 (N.D. Ill. 2003) (City's MBE and WBE goals were "formulistic" percentages not related to the availability of firms).

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets; goals must be contract specific. "Standard" goals are not defensible, nor should the annual aspirational goals function as a predetermined floor. Contract goals must be based upon availability of M/WBEs to perform the anticipated scopes of the contract, location, progress towards meeting annual goals, and other factors. Not only is this legally mandated, ¹²¹ but this approach also reduces the need to conduct good faith efforts reviews, as well as the temptation to create "front" companies and sham participation to meet unreasonable contract goals. While this is more labor intensive than defaulting to the annual or standard goals, there is no option to avoid meeting the narrow tailoring standard.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.¹²² An M/WBE program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.¹²³ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.¹²⁴ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹²⁵ Further, firms that meet the goals cannot be favored over those who made good faith efforts and firms that exceed the goals cannot be favored over those that did not exceed the goals.

4. Review Program Eligibility Over-Inclusiveness and Under-Inclusiveness

The over- or under-inclusiveness of those persons to be included in the City's Program is an additional consideration and addresses whether the remedies truly target the evil identified. The "fit" between the problem and the remedy manifests in three ways: which groups to include, how to define those groups, and which persons will be eligible to be included within those groups.

^{121.} See Sherbrooke, 345 F.3d at 972; Coral Construction, 941 F.2d at 924.

^{122.} See 49 C.F.R. §26.43 (quotas are not permitted and setaside contracts may be used only in limited and extreme circumstances "when no other method could be reasonably expected to redress egregious instances of discrimination").

^{123.} See, e.g., BAGC v. Chicago, 298 F. Supp.2d at 740 ("Waivers are rarely or never granted.... The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.").

^{124.} Croson, 488 U.S. at 508; see also Adarand VII, 228 F.3d at 1181.

^{125.} See, e.g., Sherbrooke, 345 F.3d. at 972; Webster, 51 F. Supp. 2d at 1354, 1380.

The groups to include must be based upon the evidence.¹²⁶ The "random inclusion" of ethnic or racial groups that may never have experienced discrimination in the entity's market area may indicate impermissible "racial politics".¹²⁷ In striking down Cook County, Illinois' construction program, the Seventh Circuit remarked that a "state or local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian-Americans and women."¹²⁸ However, at least one court has held some quantum of evidence of discrimination for each group is sufficient; *Croson* does not require that each group included in the ordinance suffer equally from discrimination.¹²⁹ Therefore, remedies should be limited to those firms owned by the relevant minority groups, as established by the evidence, that have suffered actual harm in the market area.¹³⁰

Next, the firm's owner(s) must be disadvantaged. The DBE Program's rebuttable presumptions of social and economic disadvantage, including the requirement that the disadvantaged owner's personal net worth not exceed a certain ceiling and that the firm meet the Small Business Administration's size definitions for its industry, have been central to the courts' holdings that it is narrowly tailored.¹³¹ "[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor."¹³² Further, anyone must be able to challenge the disadvantaged status of any firm.¹³³

5. Evaluate the Burden on Third Parties

Failure to make "neutral" changes to contracting and procurement policies and procedures that disadvantage MBEs/WBEs and other small businesses may result in a finding that the program unduly burdens non-MBEs/WBEs.¹³⁴

^{126.} *Philadelphia II*, 6 F.3d 990, 1007-1008 (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Native Americans).

^{127.} Webster, 51 F.Supp.2d at 1380–1381.

^{128.} Builders Association of Greater Chicago v. County of Cook, 256 F.3d 642, 646 (7th Cir. 2001) ("Cook II").

^{129.} Concrete Works IV, 321 F.3d at 971 (Denver introduced evidence of bias against each group; that is sufficient).

^{130.} *Rowe*, 615 F.3d at 233, 254 ("[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina's statute differs from measures that have failed narrow tailoring for overinclusiveness.").

^{131.} Sherbrooke, 345 F.3d at 973; see also Grutter, 539 U.S. at 341; Adarand VII, 228 F.3d at 1183-1184 (personal net worth limit is element of narrow tailoring); cf. Associated General Contractors of Connecticut v. City of New Haven, 791 F.Supp. 941, 948 (D. Conn. 1992), vacated on other grounds, 41 F.3d 62 (2nd Cir. 1992) (definition of "disadvantage" was vague and unrelated to goal).

^{132.} Sherbrooke, 345 F.3d. at 973.

^{133. 49} C.F.R. §26.87.

However, "innocent" parties can be made to share some of the burden of the remedy for eradicating racial discrimination.¹³⁵ The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. The proper focus is whether the burden on third parties is "too intrusive" or "unacceptable". As described by the court in upholding the Illinois Tollway's program for non-federally assisted contracts,

[t]he Court reiterates that setting goals as a percentage of total contract dollars does not demonstrate an undue burden on non-DBE subcontractors. The Tollway's method of goal setting is identical to that prescribed by the Federal Regulations, which this Court has already found to be supported by "strong policy reasons" [citation omitted].... Here, where the Tollway Defendants have provided persuasive evidence of discrimination in the Illinois road construction industry, the Court finds the Tollway Program's burden on non-DBE subcontractors to be permissible.¹³⁶

Burdens must be proven and cannot constitute mere speculation by a plaintiff.¹³⁷ "Implementation of the race-conscious contracting goals for which [the federal authorizing legislation] provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although the result places a very real burden on non-DBE firms, this fact alone does not invalidate [the statute]. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities."¹³⁸

Narrow tailoring does permit certified firms acting as prime contractors to count their self-performance towards meeting contract goals, if the study finds discriminatory barriers to prime contract opportunities and there is no requirement that a program be limited only to the subcontracting portions of contracts. The DBE program regulations provide this remedy for discrimination against DBEs seeking prime work, ¹³⁹ and the regulations do not limit the appli-

^{134.} See Engineering Contractors I, 943 F.Supp. at 1581-1582. (County chose not to change its procurement system).

^{135.} Concrete Works IV, 321 F.3d at 973; Wygant, 476 U.S. at 280-281; Adarand VII, 228 F.3 at 1183 ("While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as Adarand will be deprived of business opportunities"); cf. Northern Contracting II, at *5 ("Plaintiff has presented little evidence that is [sic] has suffered anything more than minimal revenue losses due to the program.").

^{136.} Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al, 2015 WL 1396376 at * 22 (N.D. III.)

^{137.} *H.B. Rowe,* 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).

^{138.} Western States, 407 F.3d at 995.

^{139. 49} C.F.R. §26.53(g) ("In determining whether a DBE bidder/offeror for a prime contract has met the contractor goal, count the work the DBE has committed to perform with its own forces as well as the work that it has committed to be performed by DBE subcontractors and suppliers.").

cation of the program to only subcontracts.¹⁴⁰ The trial court in upholding the Illinois DOT's DBE program explicitly recognized that barriers to subcontracting opportunities also affect the ability of DBEs to compete for prime work on a fair basis.

This requirement that goals be applied to the value of the entire contract, not merely the subcontracted portion(s), is not altered by the fact that prime contracts are, by law, awarded to the lowest bidder. While it is true that prime contracts are awarded in a race- and gender-neutral manner, the Regulations nevertheless mandate application of goals based on the value of the entire contract. Strong policy reasons support this approach. Although laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination at the level of prime contracts, the indirect effects of discrimination may linger. The ability of DBEs to compete successfully for prime contracts may be indirectly affected by discrimination in the subcontracting market, or in the bonding and financing markets. Such discrimination is particularly burdensome in the construction industry, a highly competitive industry with tight profit margins, considerable hazards, and strict bonding and insurance requirements.¹⁴¹

6. Examine the Duration and Review of the Program

Race-based programs must have durational limits. A race-based remedy must "not last longer than the discriminatory effects it is designed to eliminate."¹⁴² The unlimited duration and lack of review were factors in the court's holding that the City of Chicago's M/WBE construction program was no longer narrowly tailored; Chicago's program was based on 14-year-old information which, while it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City's efforts in 2004.¹⁴³ How old is too old is

^{140. 49} C.F.R. §26.45(a)(1).

^{141.} Northern Contracting II, 2005 U.S. Dist. LEXIS 19868 at 74.

^{142.} Adarand III, 515 U.S. at 238.

^{143.} BAGC v. Chicago, 298 F.Supp.2d at 739.

not definitively answered, ¹⁴⁴ but governments would be wise to analyze data at least once every five or six years.

In contrast, the USDOT DBE program's periodic review by Congress has been repeatedly held to provide adequate durational limits.^{145, 146} Similarly, "two facts [were] particularly compelling in establishing that [North Carolina's M/WBE program] was narrowly tailored: the statute's provisions (1) setting a specific expiration date and (2) requiring a new disparity study every five years."¹⁴⁷

^{144.} See, e.g., Associated General Contractors of Ohio, Inc. v. Drabik, 50 F.Supp.2d 741, 747, 750 (S.D. Ohio 1999) ("Drabik I") ("A program of race-based benefits cannot be supported by evidence of discrimination which is now over twenty years old.... The state conceded that it had no additional evidence of discrimination against minority contractors, and admitted that during the nearly two decades the Act has been in effect, it has made no effort to determine whether there is a continuing need for a race-based remedy."); Brunet v. City of Columbus, 1 F.3d 390, 409 (6th Cir. 1993), cert. denied sub nom Brunet v. Tucker, 510 U.S. 1164 (1994) (fourteen-year-old evidence of discrimination "too remote to support a compelling governmental interest.").

^{145.} See Western States, 407 F.3d at 995.

^{146.} See FAST Act.

^{147.} H.B. Rowe, 615 F.3d at 253.

City of Austin Disparity Study 2022

III. CITY OF AUSTIN'S MINORITY-AND WOMAN-OWNED BUSINESS ENTERPRISE PROGRAM

A. City of Austin's Minority- and Woman-Owned Business Enterprise Program

1. Program History, Authority and Purpose

In 1987, the Austin City Council authorized a race- and gender-inclusive Minority-owned Business Enterprise ("MBE") and Woman-owned Business Enterprise ("WBE") Procurement Program. The Program sought to redress discrimination in the City's marketplace and promote equal access to contracting opportunities to all firms. The Program was based on the 1987 Economic Development Commission's findings of significant disparities in the number of City contracts awarded to MBEs and WBEs. The City reviewed and revised the Program in 1992, 2003 and 2006 based on new studies. The enabling ordinances were last updated in 2015.¹⁴⁸

The MBE/WBE Program is designed to be narrowly tailored to remedy discrimination in Austin's marketplace. The Program is intended to: (1) promote and encourage MBEs and WBEs to participate in business opportunities for the City; (2) afford MBEs and WBEs an equal opportunity to work on City contracts; and (3) encourage contractors to provide subcontracting opportunities to certified MBEs and WBEs by soliciting such firms for subcontracting opportuni-

ties.¹⁴⁹ The Austin City Code, Sections 2-9A through 9D, sets forth overall policy objectives of the Program, annual participation goals, race- and gender-neutral measures to ensure equal opportunity for all contractors, Program administration and management, Program eligibility and implementation processes and procedures, creation of an MBE/WBE and Small Business Advisory Committee and sunset provisions.

^{148.} Austin City Code, Sections 2-9A through 9D.

^{149.} Austin City Code, Section 2-9A-2.

2. Program Elements and Administration

The ordinance establishes the Small and Minority Business Resources Department ("SMBR") to administer the Program. The Director administers all aspects of Program, including adopting rules and regulations to assist with implementation and enforcement of the Program. The Director reports directly to the Assistant City Manager overseeing Economic Opportunity and Affordability outcome. The Director has final administrative authority over the Program's operations. Duties of SMBR include:

- Formulating, proposing, and adopting rules and regulations for the further development, implementation, and monitoring of the Program;
- Assuring that MBEs and WBEs are informed of City contracting and consulting opportunities;
- Providing information and assistance to MBEs and WBEs relating to City procurement practices and procedures, including bid specifications, requirements, and prerequisites;
- Certifying businesses as MBEs and WBEs for the local Program and as DBEs for federal-aid contracts, maintaining certification records and ensuring that all City departments have an up-to-date register;
- Reviewing contractors'¹⁵⁰ achievement of goals or documentation of good faith efforts ("GFEs") made to comply with participation goals for contracts and rendering decisions on whether GFEs are sufficient;
- Working with User Departments to monitor contracts to ensure prompt payments to MBEs and WBEs and compliance with participation goals and commitments;
- Establishing project participation goals and/or subgoals;
- Receiving, reviewing, and acting upon complaints and suggestions concerning the Program, and reporting violations when such occur;
- Providing staff support and reports to the MBE/WBE and Small Business Advisory Committee and forwarding its recommendations to the City Manager, City Council, and City departments to further the policies and objectives of the Program;
- Reporting the availability of MBEs and WBEs certified by the City to perform contracts for the City.

SMBR is comprised of three divisions.

^{150.} For readability, we use the term "contractor" to include consultants and any other type of vendor.

- 1. The Certification Division certifies firms as a Minority Business Enterprise and/or as Woman Business Enterprises. In addition, the Certification Division certifies firms for the federal Airport Concessions Disadvantaged Business Enterprise and Disadvantaged Business Enterprise Programs.
- 2. The Resource Division conducts outreach to the small and minority business community, conducts technical assistance workshops and assist with the internal administration of the Program.
- 3. The Compliance Division reviews solicitations, sets project goals, collaborates with project managers to help identify scopes of work on projects, and verifies Compliance Plan information submitted by bidders.¹⁵¹

Other City departments serve roles in Program administration:

- The Financial Services Department is responsible for maintaining records and compiling reports to measure financial performance and compliance.
- Project management departments, such as the Purchasing and Capital Contracting Office and the Public Works Department, that have contract compliance responsibilities; and assist by establishing the trade summaries that describe the scopes of work and the percentages of those scopes.

The Minority-Owned and Women-Owned Business Enterprise and Small Business Enterprise Procurement Program Advisory Committee provides input about the Program.¹⁵² The Committee is composed of 11 members appointed by the Austin City Council. It is intended to have the widest representation of businesses in Austin. Members may include: an owner of a certified MBE/WBE; representatives of the minority and woman's chambers of commerce; a noncertified contractor; representatives of trade associations; and representatives from professional organizations. The Committee's duties include reviewing the City Manager's report and recommending changes to the City Code, Program rules and regulations, and Program operations.

Contracts exempted from the Program include awards of federal or state grants to non-profit entities providing services to the community; real property transactions; lease and franchise agreements; gifts of materials, equipment, supplies or services; interlocal or intergovernmental agreements; sole source procurements of commodities, intellectual property rights or other

^{151.} For readability, we use the term "bidder" to include firms submitting proposals, qualifications or information. We use the term "bid" to denote any solicitation for goods or services or to denote the submission of a response to a solicitation.

^{152.} Austin City Code Sections 2-9A-13 and Austin City Code, Section 2-1E.

exclusive rights with no subcontracting opportunities; and public health and safety emergency purchases.

The City enters into third party agreements which provide for the design and construction of public improvements to City real property by a third party rather than through a direct contract between the City and a general contractor. Eligible third-party agreements must comply with the City's MBE/WBE Ordinance and the language of the Program must be included as an element of the agreements. SMBR provides a list of certified MBEs/WBEs to the third party/private entity. The third party/private entity is responsible for identifying scopes of work required to complete the design and/or construction of a project and obtaining a list of certified MBEs/WBEs.

3. Race- and Gender-Neutral Measures to Ensure Equal Opportunity for All Contractors

The City has adopted by ordinance several race- and gender-neutral measures to ensure equal opportunity for all contractors. These include:

- Arranging solicitation times for the presentations of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of interested contractors and subcontractors;
- Segmenting contracts so as to facilitate the participation of business enterprises;
- Providing assistance to business enterprises in overcoming barriers such as difficulty in obtaining bonding and financing;
- Providing timely information about contracting procedures, bid preparation, and specific contracting opportunities;
- Holding pre-bid conferences, where appropriate, to explain the projects and to encourage contractors to use all available business enterprises as subcontractors;
- Adopting prompt payment procedures, including requiring by contract that prime contractors pay subcontractors within 10 calendar days of receipt of payment from the City and, where appropriate, issuing joint checks to contractors and subcontractors;¹⁵³
- Expediting payments and advancing payments to cover start-up and mobilization costs, where appropriate;

^{153.} For readability, we use the term "subcontractor" to include subconsultants, suppliers and truckers.

- Collecting information from all prime contractors on City contracts detailing the bids received from all subcontractors for City contracts and the expenditures to subcontractors utilized by prime contractors on City Contracts;
- Implementing a continuous process for information flow between contractors, SMBR, the Purchasing Office, and relevant City departments;
- Reviewing bonding and insurance requirements to eliminate unnecessary barriers to contracting with the City; and
- Referring complaints of discrimination to the appropriate state or federal agency for investigation and resolution or taking other action as appropriate.¹⁵⁴

In addition to these statutory provisions, the City has enacted several specific programs to assist all firms to do business with it.

- The Mobilization Prompt Pay Program ("MPP") provides prime contractors and subcontractors quicker access to payments by allowing primes to submit pay applications twice a month during critical mobilization phases on the contract (as submitted by the prime and approved by the City). These will include the first two months of contract time and additional periods identified by the contractor and approved by the owner when peak subcontractor mobilization will occur. The MPP Program also allows subs to invoice primes twice per month. This Program is offered on all City construction contracts at or above \$2M.
- A partial payment process is available when payment is withheld to the prime contractor due to issues unrelated to a subcontractor's work. If the subcontractor's request for payment for its approved work is approved, the City will direct payment from the prime contractor to the subcontractor. The request for partial payment will only be approved when there are no issues relating to sub
- contractor's work. For example, if an invoice is submitted by a subcontractor for three scopes of work and the first two are approved, but the third one is not, the first two will be paid and the third will not be paid until it is approved by the City.
- The Quick Pay Program ("QPP") allows contractors to be paid within 10 days of work being accepted or approved by the City. The subcontractor invoices the prime contractor when work is complete and the prime contractor pays the sub when it is approved by the City. A specific process

^{154.} Austin City Code, Section 2-9A-5.

for QPP is developed for each contract between the City and the prime contractor.

- A subcontractor may request the release of retainage for work that has been completed, approved and for which the warranty period for that scope has expired but prior to the completion of the project. If the request is approved, the amount of the subcontractor's retainage will be released in the prime's next payment. Applications for payment shall include an updated progress schedule; the Monthly Subcontractor Report; and any other documentation required under the supplemental general conditions.
- The Small Business Construction Program applies to construction and construction-related projects with an estimated budget of less than \$50,000. Contracts under the Program are reserved for solicitation of certified SBEs. To qualify, a firm must meet the Small Business Size Standards of \$16.5 million in average gross receipts for the past five years and be certified as a SBE by the City of Austin. This amount is adjusted from time to time based on changes to the SBA's size standards.

The City's Economic Development Department's Small Business Division (SBD")¹⁵⁵ implements several race- and gender-neutral programs to assist small firms. SBD provides a broad overview of resources available to an aspir-ing/existing business owner in a 90-min class called *BizAid Business Orienta-tion*. This class is held via a live webinar every other week. For businesses utilizing a physical space, there is a separate orientation called *BizOpen* that covers need-to-know information about navigating the City's zoning and permitting process to get a Certificate of Occupancy. Additionally, SBD offers high-quality professional development opportunities for small business owners at no-charge or a nominal charge. Registration for all of these classes can be found at www.SmallBizAustin.org.

After taking *BizAid Business Orientation*, the client is eligible for no-charge confidential business coaching to discuss how to strengthen business practices and run an efficient business. There is also a directory of small business resources.¹⁵⁶ This list can be filtered to find nonprofit and government agencies that provide a variety of services to the small business community.

The City has partnered with BiGAUSTIN and the Economic Growth Incubator ("EGBI") to provide small business technical support. BiGAUSTIN provides access to capital; expert industry knowledge; bidding opportunities; partner-ship development; and training on how to run a business. BiGAUSTIN is a U.S.

^{155.} https://www.austintexas.gov/content/1352/programs/5211.

^{156.} https://www.austintexas.gov/small-business-resources.

Treasury approved micro-lender that provides loan applicants with a streamlined process and quick decisioning. EGBI provides training coaching and support to new and existing business owners who face barriers to growing a successful business.

In 2019, the City instituted the Small Business Contracting Forum, a one-day virtual conference designed to help connect businesses to procurement opportunities with department representatives from the City as well as other Central Texas government agencies. More than 40 departments and 2,000 vendors registered and 400 people participated in the event in 2020.

The City also provides seminars and workshops to vendors, City staff and other parties involved with the City's Capital Improvement Program ("CIP") through its CIP Partners Academy. The Academy is designed to equip all relevant firms that could work on City construction or professional services projects with the necessary tools to bid on contracts, and to gain a better understanding of City processes and roles associated with CIP contracting. Participants are eligible to receive a certificate of completion when they have attended six seminars that include such topics such as MBE/WBE Compliance, the Statement of Qualifications Process, the Evaluation Process, Upcoming Projects in Construction, Upcoming Projects in Professional Services and Alternative Delivery, Contracting Methods Used by the City. In addition, the Capital Contracting Office periodically provides training on how to do business with the City with its "What it Takes to do Business with the City" class.

Other City supported offerings include:

- PeopleFund, promotes economic opportunity and financial stability for underserved people by providing access to capital, education, and resources to build healthy small businesses.
- BCL of Texas' Entrepreneurship Program provides comprehensive training, counseling and access to capital resources to achieve long-term success.

Since the coronavirus pandemic has changed the way business is conducted, the City provides training to enable MBEs/WBEs/DBEs and other contractors to learn more about virtual platforms used by the City to allow them to participate in various procurement informational meetings.

4. MBE/WBE Program Eligibility Standards and Process

The City applies stringent, narrowly tailored Program eligibility criteria.

• At least 51% of the applicant company must be independently owned, managed, and controlled by one or more socially and economically

disadvantaged individuals. Socially and economically disadvantaged individuals are defined as members of one of the presumptively disadvantaged groups: Asian Americans, Blacks or African Americans, Native Americans, Hispanics, Women, or other groups or other individuals found to have suffered actual social and economic discrimination and decreased opportunities to compete in the City's marketplace or to do business with the City.

- An applicant firm must be "small." A small business is defined by the Small Business Administration ("SBA") Size Standard Guidelines. Only a firm that is a small business can be certified. The City applies the standards of 13 C.F.R. Part 121 to determine business size.
- The applicant's owner must be economically disadvantaged. The owner's personal net worth must not exceed \$1,697,000 for MBE/WBE certification. This level is adjusted every January 1, based on changes in the South Region Consumer Price Index, published by the U.S. Department of Labor, Bureau of Labor Standards, beginning January 1, 2009.
- The applicant must have a "significant local presence," defined as a facility located within the State of Texas from which it maintains adequate personnel, equipment, materials, and facilities to perform its areas of specialty for at least 90 days before the date of its application to be eligible for certification.
- The applicant must be a for-profit business.
- The applicant must be owned, managed and controlled by the socially and economically disadvantaged owner.
- The applicant must perform a commercially useful function ("CUF") (discussed below).

Certifications are conducted by SMBR's Certification Division. Certification is free. Before the firm applies for certification, it must register as a vendor on Austin Finance Online. The City uses the Certification and Compliance System ("CCS"), an online certification portal which offers training for those who wish to learn to navigate the CCS. The system processes applications, provides outreach and Program notices, and contains listings of upcoming events. The CCS is powered by B2GNow. Completed applications are reviewed in the order in which they are received. Processing can take up to 60 days once all information has been uploaded into the portal. Certification is valid for four calendar

years from the date of initial certification.¹⁵⁷ Certified firms as listed on SMBR's Certified Firms Directory.

The City also certifies the eligibility of Joint Ventures involving MBEs and WBEs and non-MBE and WBE contractors.

Evidence of an applicant's certification as a MBE, WBE, or DBE by another governmental entity is considered but is not conclusive to the determination of the applicant firm's eligibility for certification by the City as an MBE or WBE.

MBEs and WBEs may be certified in more than one scope of work, as long as the eligibility criteria are met. Certification in a scope of work qualifies the MBE or WBE to participate in all closely related areas of the specialty. The City uses National Institute of Government Purchasing codes for certification and contract goal setting.

The applicant must report any changes in its ownership, management, officers, or financial relationships during the pendency of its application to SMBR in writing within 10 days. Failure to report such change may result in the denial of certification or recertification.

The Director shall inform the applicant in writing of the basis for the denial of certification, recertification or decertification. A notice of intent to appeal must be submitted to the Director in writing within seven days of the date the firm receives a notice of intent to impose an adverse certification decision. After filing a notice of intent to appeal, the firm may file a written appeal that describes the reasons that the firm believes the adverse certification decision is inappropriate. The appeal must be submitted to the Director within 21 days of the date the firm receives notice of intent to impose an adverse certification decision decision. The Director's final decision on the written appeal is made in writing after an informal hearing. A firm may protest the Director's adverse decision to an independent hearing examiner appointed by the City. The firm must submit a notice of intent to protest to the Purchasing Office within four calendar days of receipt of the final adverse certification decision.

A firm denied certification or recertification or decertified may not apply for certification for 180 days from the effective date of the denial or decertification.

The quadrennial recertification review includes an evaluation of whether the firm remains eligible. This includes review, among other criteria, of whether its annual gross receipts and its affiliates exceed the SBA size standard and the owner's personal net worth exceeds the current limit. If these limits are exceeded, then the firm graduates from the Program.

^{157.} In 2019, the City adopted Rule 161-17.14 to remove the prior annual certification renewal requirement.

SMBR offers a monthly certification training class, Certification 101, that provides an overview of the certification process and practical instruction in completing forms to ensure successful certification.

5. MBE and WBE Goals

The City has adopted annual, aspirational goals for MBE and WBE participation. Annual participation goals are expressed as a cumulative goal for all groups of minority persons, composed of annual subgoals for each group of minority persons and a separate goal for women.¹⁵⁸

Minority goals may be aggregated into race-specific goals depending on the project.

SMBR sets MBE and WBE contract goals for a solicitation based on the dollar value of the solicitation; the types and scopes of work of the solicitation; the availability of MBEs and WBEs to perform the scopes of work anticipated in the solicitation; and the City's progress toward achieving annual participation goals and subgoals in the fiscal year in which the solicitation will be awarded.

Goals may not be set if there are not at least three certified MBEs or WBEs currently available to provide the commodities or services identified in the solicitation, or when there are insufficient subcontracting opportunities.

When the City determines that no goals are appropriate for the project, the solicitation states that even though no goals have been established, the bidder is required to comply with the City's MBE/WBE Procurement Program should it self-identify areas of subcontracting opportunity by contacting SMBR for an availability list and performing good faith efforts. Failure to do so may render the bid non-compliant.

6. MBE/WBE Program Solicitation Review and Award Process

Solicitations that contain a goal must include: (A) A description of the ordinance chapter and the Program; (B) The goals or subgoals for the specific solicitation that reflect the anticipated amount of materials/supplies and services; (C) The requirements related to achieving the goals or subgoals; (D) The requirements and deadlines to submit a Compliance Plan to either meet the goal(s) or document GFEs to have done so; and (E) An availability list from SMBR of MBEs and WBEs identified for possible subcontracting opportunities generated from the certified firm database. If the firm's services match a given solicitation, the firm receives two separate notices to submit a bid.

^{158.} Austin City Code, Section 2-9A-18.

Solicitations for which no goal is include a description of the Program, a statement that no goals have been set for the solicitation and that no Compliance Plan is required. The solicitation also includes a No Goal Utilization Plan and a statement that the City encourages bidders to contract with MBEs and WBEs when subcontracting opportunities arise and that the bidder must abide by the Program.

a. MBE/WBE Compliance Plan Policies and Procedures

To be responsive to a solicitation for which goals have been established, the bidder must submit a completed Compliance Plan demonstrating achievement of the goals or its GFEs to do so.¹⁵⁹ Bidders must notify MBEs and WBEs of subcontracting/sub-consulting opportunities at least seven business days before submission of the bid/proposal. The Plan is due at time set forth in solicitation documents, which shall not be less than four hours after the bid/proposal submission deadline, and no later than 5:00 p.m. on the day of the bid/proposal submission deadline. Bidders must complete the MBE/WBE Compliance Plan Checklist if the goals are not met.

Failure to submit a timely and complete Compliance Plan results in rejection of the bid/proposal as being non-responsive.

GFEs are defined as actions undertaken by a bidder to achieve an MBE/ WBE goal with respect to a contract. The bidder must show that it took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain MBE or WBE participation, even if they were not fully successful. Efforts employed must be those that one could reasonably expect a bidder to take if it were actively trying to obtain MBE and WBE participation sufficient to meet the MBE and WBE contract goals. Mere *pro forma* efforts are not GFEs. The desire to self-perform work does not relieve the bidder of the responsibility to demonstrate GFEs.

In particular, bidders must:

- 1. Notify certified firms, using two separate verifiable methods (fax, email, mail, or telephone call), at least seven business days prior to submission of bid/proposal. Notices should contain project requirements, addenda, contact information, and due dates for responding.
- 2. Follow-up with interested MBEs and WBEs.
- 3. Negotiate in good faith with interested MBEs and WBEs.
- 4. Publish a notice in a local publication.

^{159.} Austin City Code, Section 2-9C-21.

- 5. Seek services of trade associations and other minority and woman community organizations.
- 6. Contact SMBR for assistance.
- 7. Select portions of work that will increase MBE/WBE opportunities.
- 8. Assist MBEs/WBEs with bonding, lines of credit, and insurance and with obtaining necessary equipment, supplies, materials, or related services.¹⁶⁰

Bidders should not disqualify firms without sound reasons.

SMBR reviews all GFE documentation. This includes:

- Verification that all MBEs and WBEs were contacted.
- Verification that ads were placed in local or minority publications.
- Verification that contact was made with minority contracting and business organizations.
- Verification that contact was made to SMBR.
- Sending a GFE Survey to MBEs and WBEs for any ethnic category where the goal was not met.

SMBR may consider the performance of other bidders in meeting the goals.

If a bidder fails to meet the goal or make GFEs with respect any goal or subgoal, the bid or proposal will be deemed non-responsive.

If a Compliance Plan is denied on the grounds that the GFEs requirements were not met, the Contract Awarding Authority shall inform the bidder in writing of the basis for denial. To protest this decision, bidder must follow the protest process set forth in City's Purchasing Office Solicitation Instructions.

b. Counting MBE/WBE Participation Towards Contract Goals

The Program Rules detail how MBE/WBE participation will be counted towards the contact goal(s). Firms must be certified by the City at the time of bid or proposal submission in order to count their MBE/WBE participation. Only the value of the work actually performed by the MBE/WBE can be counted towards MBE/WBE goals and towards the overall goal. This includes the cost of supplies and materials obtained by the MBE/WBE for the contract, supplies purchased or equipment leased. Fees or commissions for providing a service or providing bonds or insurance required for

^{160.} Austin City Code, Sections 2-9A through 9D-21.

the performance of the contract can also be counted as long as they are reasonable and customary. Bidders may count MBE or WBE participation of every level of subcontracting toward the project goal. Bidders may count only the participation of MBEs and WBEs for the scopes of work for which they are certified on or before the date the bid/proposal is submitted.

Prime certified firms may count their own participation less any amount subcontracted toward a goal for which they qualify. They may not, how-ever, divide their own participation between two goals.

The City counts 100% of the payment for the supplies, materials, or equipment toward goals purchased from an MBE/WBE that is a manufacturer or regular dealer. If the MBE or WBE is neither a manufacturer nor regular dealer, the cost of the materials and supplies themselves cannot be counted toward the goals. Fees or commissions charged for assistance in the procurement of the materials or supplies, or fees or transportation charges for the delivery of materials or supplies required for a job site, may be counted toward the goals if payment of such fees is a customary industry practice and such fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

Work that MBE/WBE contracts to another MBE/WBE cannot be counted twice towards the goal.

Dually certified firms can be counted as either MBE or WBE but not both on a specific Compliance Plan.

If race and ethnic subgoals are specified, the participation of an MBE owned by a member of one racial or ethnic group cannot be counted toward another racial or ethnic group's subgoal. Participation submitted to meet each goal is evaluated separately.

If the firm ceases to be certified during the contract period, participation will only be counted for the value of work performed while the firm was certified.

When the MBE/WBE performs as a participant in a Joint Venture, only the portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the work of the Contract that the MBE/WBE performs with its own forces and for which it is at risk shall be counted towards MBE/WBE Goals.

SMBR verifies whether the MBE or WBE is (1) certified in the scope of work in the Compliance Plan; (2) agrees with the price and scope specified in the Plan; and (3) is performing a CUF.

Within seven business days of receiving the Compliance Plans, the SMBR informs the contract awarding authority whether the Plan meets the goals or establishes GFEs to meet the goals.

Letters of Intent from certified firms must be submitted by bidder no later than three business days after written notification of its status as apparent low bidder or successful proposer. Failure to provide such letters shall be grounds for rejection of the bid/proposal. If an MBE or WBE fails to sign a letter of intent after one is requested by contractor/consultant, the contractor/consultant may request approval to substitute the subcontractor/ subconsultant after contract execution.

7. Commercially Useful Function Determinations

Only expenditures to an MBE/WBE for performing a CUF shall be counted. CUF means the contractor is responsible for the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The MBE/WBE must also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. SMBR will examine the amount of work subcontracted, normal industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and other relevant factors.

The MBE/WBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of MBE and WBE participation.

Generally, if the MBE/WBE does not perform or exercise responsibility for at least 30% of the total cost of its contract with its own forces, or the MBE/WBE subcontracts a greater portion of the work of the contract than would be expected on the basis of normal industry practice for the type of work involved, it is not performing a CUF.

8. Monitoring Contract Performance

SMBR's Compliance Division is responsible for reviewing, monitoring, and tracking MBE/WBE participation through all phases of a project. Procedures for monitoring compliance may include site visits or telephone audits; reviewing payment requests; addressing performance or payment issues; considerations of requests for substitutions, additions, deletions or change orders; review and verification of payments to subs as documented by subcontractor monthly reports; and determining final compliance with the Program.

Prime contractors and consultants are required to submit monthly subcontract expenditure reports to the City's project manager or contract manager no later than the 10th day of each month. Reports must be in a format provided by the City.

9. Changes in Compliance Plans

A contractors may seek changes to an approved Compliance Plans by submitting a Request For Change for the Director's prior written approval. The Director has sole authority to approve or deny changes or substitutions to the Compliance Plan.

Prior to submitting a request for the deletion or substitution of a subcontractor, the prime contractor must send a letter via certified mail to the MBE/WBE, with a copy to SMBR, informing the firm of the basis for the requested change and providing an opportunity for the subcontractor to resolve the problem. The contractor must immediately request a meeting with the subcontractor in a good faith attempt to resolve any outstanding issues. If requested by either party, the City shall facilitate such a meeting and monitor the process. The contractor must submit a sworn statement that a meeting with the subcontractor or subconsultant has taken place with the Request for Change form. The request must state specific reasons for the proposed addition, deletion or substitution of a subcontractor or subconsultant and include supporting documentation. The facts supporting the request must not have been known nor reasonably should have been known by the contractor and subcontractor. If the project goal(s) were not met prior to the request or the project goal(s) may not be met, the contractor must make GFEs to meet the goal(s). Documentation demonstrating GFEs must be submitted with a request.

If a contractor proposes to add an MBE or WBE to the Compliance Plan after the contract has been awarded, a signed Letter of Intent must be submitted with the request.

Within seven business days of receiving the request, the Director shall notify in writing all parties whether the request was approved or denied and, if denied, the basis for the denial. If additional time is required to evaluate the request for change, SMBR shall notify all parties in. writing of the reason(s) and the anticipated date for completion of the review.

If a change order requires that the contractor add a subcontractor to the project with the result that the project goal(s) will not otherwise be met, the contractor must make GFEs to meet the goal(s) by adding an MBE or WBE so as to meet the goal(s). If GFEs to add an MBE or WBE have been made to the satisfaction of the Director, then the contractor may add a non-certified firm. If a change order involves an increase or decrease in the amount of work, a statement to that effect shall be noted on the change order, a copy of which shall be forwarded to the Director.

If a change order results in the deletion of a scope of work to be performed by a MBE or WBE, the City's manager shall notify, in writing, the contractor and the MBE or WBE and the goal(s) recalculated.

Within seven days of the date the contractor receives a notice of intent to impose an adverse decision, the contractor may file a written notice of intent to appeal with the Director. Failure to file a timely notice waives all rights to appeal or protest the adverse decision. After filing a notice of intent to appeal, a contractor may file a written appeal of the adverse decision within 21 calendar days containing a statement of the grounds for appeal. The Director's final decision is made after an informal hearing and shall be communicated to the contractor within 10 days of the hearing. The Director's decision may be appealed to the City Manager within seven days of the date the Director's decision is received. The City Manager's determination must be rendered within 21 days and is final.

Failure to obtain prior authorization for substitutions, additions or deletions of subcontractors is a violation of the MBE/WBE Ordinance. SMBR may recommend to the Purchasing Department that the City enforce the following sanctions for each violation within a rolling 24-month period:

- First Violation: Probation for a period up to six months.
- Second Violation: Suspension for a period of up to 24 months.
- Third Violation: Debarment for a period up to five years.

If the contractor engages in more than one of the prohibited actions at any given time, the Director has the discretion to determine whether such actions should be counted as multiple violations.

In order to dispute a finding of a violation, the contractor must submit a written appeal to the Director within four days of receipt of written notice of the violation.

10. Audits and Records

Contractors must agree to allow representatives of the City Auditor or other authorized personnel to audit, examine or reproduce any and all of its records related to the performance of the contract. Contractors are subject to the City Code requirement that records be retained for a period of three years after final payment on the contract or until all audit and litigation matters that the City has brought to its attention are resolved, whichever is longer. Contractors must complete the MBE/WBE Contract Compliance Closeout Report and submit it after completion of all work on the contract. Final payment is not processed until the City has reviewed and approved the completed form.

11. Post-Award Progressive Sanctions

The successful bidder's Compliance Plan is incorporated into its contract with the City and is considered as part of its performance requirements. Progressive sanctions may be imposed for failure to comply with the Program, including:

- Providing false or misleading information in GFE documentation, postaward compliance, or other Program operations;
- Substituting subcontractors without first receiving approval for such substitutions, which may include the addition of an unapproved Subcontractor and failure to use a Subcontractor listed in the approved Compliance Plan; or
- Failing to comply with the approved Compliance Plan without an approved Request for Change, an Approved Change Order, or other approved change to the Contract.

12. Training and Supportive Services

The City of Austin is committed to reducing barriers to small business participation by providing capacity building information, tools and resources to support growth of new and existing small businesses.

SMBR also provides a Plan Room with access to construction plans and specifications for public and private sector projects in over 100 Texas counties, as well as the McGraw-Hill Dodge project database. The Plan Room offers both hard copy and electronic construction plans and specifications that can be viewed onsite or copied for a minimal fee.

SMBR has partnered with the Asian Contractor Association, the Austin Area Black Contractors Association, Inc., and the U.S. Hispanic Contractors Association de Austin to reach relevant small businesses and to provide development services.

In 2021, SMBR contracted with Govology to launch a no-cost, online education portal for certified MBEs/WBEs. The Govology online portal supports businesses with resources and education by offering a mix of live webinars, ondemand trainings, government market fundamental e-courses, podcasts and digital resources. Beginning in FY22, the Department will promote the platform and encourage both certified firms and firms seeking to become certified to request access into the online portal. SMBR will provide follow-up surveys to assess the resources offered through the tool. In addition, staff is working closely with the Govology to offer demonstrations during outreach events.

13. Outreach

The City of Austin Finance Online, SMBR and Capital Projects website pages are a primary source of information and access to resources to assist MBEs/WBEs/ DBEs. The Finance Online site offers updates about current solicitations and awarded contracts. SMBR's site contains certification instructions and access to the certification portal, compliance overview, spending reports, and forms, small business resources and how to do business with the City of Austin.

SMBR, in partnership with various City departments and local government agencies, routinely participates in outreach and training events. Between 2016 to 2020, SMBR engaged in over 150 activities. These included workshops on certification, responding to City solicitations, understanding bid documents, obtaining surety bonding, as well as the Small Business Contracting Forum.

SMBR and the Financial Services Department regularly hold pre-bid conferences and provide timely information about upcoming contracting opportunities, as well as provide instruction on bid preparation. Other workshops offered by SMBR include Meet the Prime, IT Opportunities, and Big Projects with Opportunities. The three local minority contractor associations are also contracted to encourage their members to participate in the Program and to publicize City contracting opportunities.

SMBR and other City departments leverage events hosted by local organizations to provide certification instruction and to foster networking opportunities. In 2019, these include events such as the Texas Association of African American Chambers of Commerce Annual Conference in Austin, Asian Connect hosted by Greater Austin Asian Chamber of Commerce, SMBR presents Corridor Program to Hispanic/Latino Quality of Life Commission, and the Small Business Program's Women's Business Luncheon. In 2018, the City also participated in the Austin Contractors & Engineers Association Symposium.

In 2016, a \$720M Corridor Mobility Bond to improve transportation and mobility in Austin was approved. The City is committed to maximizing participation of local firms and City-certified MBEs, WBEs and DBEs and has launched an outreach plan to engage to firms in the design disciplines and construction scopes for the Corridor Program. The City implemented an interactive tool on its website to assist these businesses to view upcoming opportunities, provide details, and accept input about the initiative.

14. Staff Training

The City provides many training opportunities to its staff. These include attendance at classes, seminars and conferences sponsored by the American Contract Compliance Association Annual National Training Institute, Texas Unified Certification Program, B2GNow, the Airport Minority Advisory Council, Federal Aviation Administration and the U.S. Department of Transportation. In addition, the City has its own internal program and SMBR provides on-going staff training in specific technical areas related to the MBE/WBE Program.

B. Experiences with the City of Austin's MBE/WBE Program

To explore the impacts of race- and gender-neutral contracting policies and procedures and the implementation of the City of Austin's MBE/WBE Program we interviewed 199 individuals about their experiences and solicited their suggestions for changes. We also collected written comments from 198 MBE/WBE and non-MBE/ WBE businesses about their experiences with the City's programs through an electronic survey.

1. Business Owner Interviews

The following are summaries of the topics discussed during the group interviews. Quotations are indented and have been edited for readability. They are representative of the views expressed during the group interviews.

a. Obtaining City of Austin Work

There was general agreement that the contracting affirmative action programs are critical to providing opportunities for City work.

> We are a minority business enterprise and found it extremely helpful, and beneficial to have registered ourselves as a minority owned business.... The DBE and MBE program gives us this opportunity to go ahead and participate and do work. And it really worked out for us.... And I really appreciate all the assistance that we got from SMBR at that time.

SMBR has been really important.

If the program didn't exist or didn't exist to the degree it [does], there's no doubt in my mind that a lot of us would not be working for the City.

SMBR in my experience has been fantastic.... SMBR, I think they're very proactive. I will say that they've been very proactive to try to make things better for the minority groups. I think they've gotten more educated in the last several years so that they are making sure that fraud isn't happening, because that really hurts when there are fraudulent minority companies. It hurts the good minority companies in a huge way and they've gotten better and better and better at it.

Without this program, it would get probably 10 times worse than what you're experiencing now.

My experience with getting contracts with Austin Energy was very good. And I think that's because I had a chance to actually meet with key people inside of Austin Energy. I had a chance to have meetings with them, go sit down with them, talk to them about my business, and stuff like that. So, I think too, having a good relationship does help.

When we were newer, and unknown to the industry, [the Program] was a reason to give you a chance.

The Program works.

If we were taken out of the Program, we would no longer be a successful firm. That's a fact because those prime firms, even though they like the work we do, and we get kudos constantly from them and also from the project managers at the City, they wouldn't hire us to do the work if we weren't in the Program.

The subgoals by race and ethnicity were hailed as positives by some certified firms.

[The Program is] a huge part of us even being a viable firm in Austin, especially being able to compare it to Houston, Austin's system of splitting the minority and women's participation by racial groups has actually increased the number of teams that we've been able to participate on. And the fact that we're able to self-count own participation, where in Houston, you can't do that.

We've been certified for several years and we're here to see how we can make this successful because so far has done pretty much nothing for our business. Some Black-owned businesses, however, often felt that the very low goals were not worth their time.

When I look at the percentage allocated for African American versus the percentage that's allocated for women owned businesses or Hispanic owned businesses, the numbers are considerably small. And so, when we perform work, when I look at how the work, how the goals are being met, sometimes I feel that it's not worth my while.... [On the other hand,] if you were to do away with it and lump it into one category, I think the damage would be even greater.

Our experience with SMBR has really been good. The biggest barrier that we have is the segmented versus aggregate goal. How it affects us as an African American firm is that we are locked in, or they are locked in at 1.9%. A number of firms that we've worked with, we've been primed, they've been subs to us. They're large firms. They'll come in and say, "[name], we would love to use you, but we know you're not going to accept the 1.9". And I tell them, "No, we're not." If they could go to the aggregate goals versus the segment goals, it gives the primes an opportunity to utilize firms that bring the best resources to them. Not based on ethnicity, on a 1.9, because it is really, really, really puts a stronghold on the success [of mature MBEs]. The owners know it, the consultants know it.... It becomes a big barrier.

Some MBE/WBE advocacy group representatives reported that their members are unable to obtain City contracts, despite the administration of the Program.

It wouldn't matter if the Program existed or not because we don't have access to it within the City. We have several members who have had extraordinarily amazing success working with corporate partners that have internal programs.... So, we're having to do it kind of from the roundabout and using the business community and some federal agencies to be able to have MBEs engaged, but they're not able to engage at the City or the county level at this point.

The Program works if you are in the Program and well connected, and that you've done your networking, but I think there are barriers for people who are trying to get in....

There's a lack of assistance for small businesses that are trying to get their foot in the door.

It just seems as though the Program is not doing what it was designed to do, and that is to help minority and women owned businesses grow and flourish in the City of Austin.

Many participants, especially those in professional or other services, want to become prime vendors with the City.

Everything you can do to help the small consultant firm to become a prime consultant, to be ready to compete in the open market where the prime person helps.

The system is designed around us being subs.

The biggest problem that I run into is that I compete directly against big firms.... They have to think outside of the box and figure out, "Well, do I want to divide off a chunk of my projects for this particular firm?"... I had somebody actually send me out to go collect data for them because they couldn't figure out how to use my services. They didn't want to give the engineering [work].

Restrictive specifications that seem designed only for large firms, especially for consulting contracts, were identified as a barrier to opportunities for MBEs/WBEs to act as prime vendors to the City.

It's really hard to win work as a prime with the City of Austin, especially, when you're new. But even when you're established, because, of the requirements for City of Austin experience. I have a ton of City of Austin experience my whole career. And so does my partner at another firm. But when we started our new firm, all that got wiped clear. And so, we cannot win work as a prime for at least five years until we rack up work as a sub. And that's really frustrating when I've done prime work and excelled at it before.... But SMBR went to bat for us and told us that we could use previous firm experience [to qualify as a subconsultant].... And that really helped us. But every contract we have, we get that question from prime firms, "Are you sure we can use this?" And we have to reach out to the City, you have to reach out to SMBR, get that clarified and sent to them, because everyone's worried about that. And that's a huge challenge for us.... It's kind of silly that my previous firm can take all these projects [that] I was the only one who worked on and count that towards their experience, but I can't count towards mine.

A lot of the RFQs and RFPs that are written, they're written for the larger firms, because inevitably what they will say, show us the last three projects that were over a half a billion dollars that you worked on. Obviously, they know then that you can't prime because you haven't had three projects within the last five years that were over half a billion dollars; if it's a large program. It puts you in a bad state. You're forced to either talk to the primes about a subconsultant role and then if that's the case, then I'm at 1.9 [percent for Black-owned businesses].

A lot of minority firms like ours are smaller firms. And oftentimes our story, we spun out of a larger architecture firm. We've worked on all types of projects, of all scales.... Some of the proposals are written, don't take that into account....[For example, the] project manager and a project principle cannot be the same person. So, we're out.... We're great commercial architects, we've won awards and done all kinds of neat things. We haven't worked with the City. So, there's another 10 points that are gone. So, now 30 points are gone out [of 100].... We said, "forget it".... It might come from a mindset within the City.... You don't need 50 people to do large work.... [City staff are] essentially finding a way to work around, okay, well we really want these big firms to do it, but we got to have minorities. So, let's make the requirements on the front end that, so the big firms have to just grab minority subs.

[This approach] hurts the City too, because now you've gone after the big guy and you've taken them because you say, well, they got their experience. But guess what? That guy doesn't work there anymore. They still got the job because they counted that experience and they gave it off to whoever, with limited oversight.

The complex system for setting rates for construction consulting firms such as engineers and architects is daunting for all firms, especially smaller firms and MBEs/WBEs. Moving to a general fee system would help new entrants to compete.

The City's hourly rate system, work plan, spreadsheets, time and hours to develop a fee, and that is a tremendous amount of work for everybody, and it was tremendous amount of work for me and my company. And then I put myself in the shoes of a small business, trying to handle all that. All the accounting that has to go into coming up with all the math that goes into establishing hourly rates, just to establish an hourly rate, to then put hours into, to establish a fee. What I think the unspoken truth is, if you've got a project that has a certain, the contracts often have a fee allocated to them and, has a construction budget, and any of us architects, engineers are doing math on our napkins of fee percentages and what the fee of the project is, and we're going to make our proposal add up to in and around what's fair and what has been allocated. And so, it's a lot of work on these backups spreadsheets just to get to that ultimate answer. And, I guess I don't understand why the City is doing that versus, "Hey, let's just talk fee percentages, and what's a fair range and your fee needs to be this range right here, and, give us a fee proposal."

b. MBE/WBE Program Administration

Some MBEs/WBEs expressed concerns about inadequate monitoring of compliance with Program requirements.

They do have the Sub-K reports that they require prime firms to submit with every invoice. And that shows how much sub consulting work was given to the sub consultants on the team. However, that's it. The reports are filled out and sent into the City's project manager. And there's never any follow-up with the M/WBE firms that are on the team to find out, hey, were you asked, if you could provide service that they had initially put you in their statement of gualifications for when they were awarded the contract? Because I know that we are on a lot of rotation lists. And from some of the firms that we worked with for many years, we get requests for fee proposals to provide sub consulting services for them. For other prime firms whose teams we're on, we never hear from them at all. And they get selected year after year after year, even though they're not playing ball with the M/WBE participation.

This includes compliance with prompt payment rules.

A big part is payment and getting payments happening better, faster for the smaller minority-owned companies through the City of Austin. That's really the lifeblood. So, if I were to say where we need to focus, it's always on the financial side to get the money to us faster, regardless of what tier you're at.... City inspectors at City of Austin are also not that competent or they're on a power trip. So, they really hold up projects and they don't realize that what they're holding up, they want to squeeze the prime or the GC. But what they're really doing is hurting the smaller companies on down on the down flow, the flow through. And they don't understand that.

I've called the City and it's a mess up on their part.

[It] used to be, unfortunately, that when they would review the invoices things like being one penny off would rebound the invoice. But thankfully, it looks like the past few months that's changed. They've gotten a lot better at not being that picky, thereby not restarting the 30-day clock to review the invoices. So, whatever it is that they've done, thank you. And please let them continue in that direction. And then leaving the 10-day prompt pay in their contracts has also been helpful. We appreciate that very much.

c. Capacity Building Initiatives

One approach to address barriers to MBE/WBE participation and increase capacity would be a mentor-protégé program.

It would be nice if there was a mentor program.

The mentor protege program that the San Antonio community has launched with the City and they coordinate through the college, this current cohort that I'm in, it's a 10week program, but you had already mentioned there were six of the classes that we have to attend in order to become part of the mentor piece or the protege piece of the program are things that they mandate that we attend. So, we're getting classes on financing and raising capital and marketing and writing a professional business plan. And so, I've already found in just the four weeks that I've been in the class, you're already starting to see connections. And fortunately, the instructors are businesspeople drawn in from the community. So, they have the connections and they're actually on the phone educating, but they're also listening and helping to connect the dots. I found that sort of in-house networking really, really valuable, and just being able to identify new opportunities and new resources. And so that may be something that the City tries.

Everything you can do to help the small consultant firm to become a prime consultant, to be ready to compete in the open market where the prime person helps. Helps a lot.

Having the mentor protégé would be great because it will give us more direction and walk us through the process [of developing proposals].

[A] mentor-protégé program will open up a few doors for small firms.

They know their craft..... It's more, how can I be competitive? When can I ask a question? And when can I not ask a question? When is something considered bid shopping versus not, you know? And then how do I get my foot in the door, which is where again, that mentor-protégé program would come in. So, they need that type of program where it's a long-term program, you're not meeting every week and whatnot, but there is guidance for them..... There's lots of opportunities coming with the City of Austin, but we need to prepare our small businesses to excel and not to be taken advantage of.

Several large prime vendors also supported this concept and were open to participating in a mentor-protégé program.

We would be able to participate and want to do that.

However, it is important to ensure that the independence of the certified firm is not compromised such that its continued eligibility for the program is put in jeopardy.

The mentor-protege programs are very valuable. But there's a lot of hesitation on behalf of the primes, just because it interferes with commercially useful function, requirements within the DBE program.... There needs to be a lot of education. There needs to be some very clearly written rules of engagement in a program such as that, because you can immediately see the value of that but... it ups the risk assessment.... Unless they're very, very large and they have a whole office that handles these specifically, it's very difficult to implement.

While the City has many technical assistance initiatives, some small firms were either unaware of them or did not find them geared towards their needs.

I don't think there is a TA piece that is already in existence to work in line with people that are trying to get government contract work.

I'll take them some more [estimating classes]. I want to learn more.

It would be incredible if there could be something else for people in our situation, as far as bonding.

There are so many pitfalls that I think really educating everybody in this process on this is exactly what you need to do to be successful is incredibly important.

There's lots of opportunities coming with the City of Austin, but we need to prepare our small businesses to excel and not to be taken advantage of.

[The City] could make probably week- to month-long mentorship training opportunities on every aspect of running a firm. And those services just aren't there.... think the City is in a good opportunity to provide some of those [services].

Many prime firms supported more training and assistance for certified businesses.

There's so much red tape. And there are so many pitfalls that I think really educating everybody in this process on this is exactly what you need to do to be successful is incredibly important.

The capacity of a small firm to do that is tough, to develop the [billing] rates is tough. So, having, somewhere within DSMBR or within the City infrastructure that has a physical location, that folks can go in and get assistance in how to do those things. Even maybe the City has facilities to help develop proposals.

The size and complexity of the statements of qualification that are required by the City, are not exactly in line with what small businesses can produce cost effectively. And then two, that the challenge of the overhead rates and the audited rates and making sure that small firms know how to do that and have the capacity to do that and are hamstrung because of that. We've had some subs who don't understand the concept of I have to have some backup for this invoice. You're charging for extra work or whatever. And it's like, you can't just put it on a piece of paper and say, "You owe me this much money for extra work." You have to be able to back that up. And we've had small subs who are clueless as to what to do there, how to find that backup. How to collect it as they go. So, that might be an area where the City could do some additional training.

The CIP Academy that the City of Austin has implemented has been quite useful. And I agree that the topics that they've covered during those, have been a big help to our members.

One idea was to have a site where firms could post their qualifications for prime vendors to help establish relationships.

It would be really neat if you had the CV for those companies [posted on the City's] ... website, so the subs could put whatever information they feel like is critical to sell their firm. So, it's not just a name. That way I go, "Oh, I need an environmental consultant and here's this wonderful person. And they've done all this work." It's not easy to find that right now.

Some business owners urged more communication between City departments about what assistance is already available.

A lot of the certified businesses, they know SMBR they don't know [the Small Business Department]. And so, they're missing out on a lot of resources that are available to them.

d. Meeting MBE/WBE Contract Goals

Although sometimes challenging, most bidders were able to meet contract goals.

We pretty much always meet the goals. We very rarely have to do the good faith efforts, unless we have a particular commodity that doesn't really have a minority or woman owned business.

I like the Program ... as a person, as an individual and as a firm, we support helping minority, and women owned businesses grow and develop and enter their resumes.

Team consistency from project to project, building that rapport and knowing what to expect. That's really where it's at for us. We have had to kind of eliminate those poor performers, not maybe mid project, but definitely "Okay lessons learned we don't have to work with this firm again." And so, over the course of time, we've kind of developed our core team and don't have an issue meeting those goals. As an engineer, I have not had to go through that good faith effort process, always been able to meet our goals.

We typically meet all the goals.

We've definitely helped a lot of subcontractors grow a lot but finding new ones that will be willing to fill out all the paperwork and get a quote in quick enough [is a challenge].

However, some large consulting firm representatives stated that the Program had negative consequences.

Raise prices, reduce the number of contractors interested in bidding the work. It tends to build frustration and ultimately many contractors and subcontractors are not motivated to continue bidding future projects. When there is so much other available work in the marketplace without the red tape.

Meeting the subgoals for each racial and ethnic group and White women can be especially difficult.

Oftentimes, a project is specified with goal percentages for every classification of diversity, yet the project may not actually yield this opportunity because of limited vendors on that subcontract vendor list that fall within the commodity code.... You are only able to use one ethnic vendor code per commodity code identified. For a project that has four classifications of diversity and you may only have five opportunities, you may only find three opportunities but yet you have to meet four goals.

The key is to really just finding the right people in the different categories that can help out.

It'd be easier and better if it was put back into, you've got to do 32% or whatever percentage of what they want, and of minority-owned businesses. And it can be a more flexible breakdown amongst the gender, ethnicities, I think would be helpful.... If it's a big project that needs all kinds of disciplines, and all kinds of engineers, not too hard, but if it's a small renovation, right, there's only a few disciplines and that's where it gets trickier.

We perform a large amount of the work with our own inhouse forces. And so having those multiple goals on any given project, it makes it almost impossible for us to meet them. If they could take it back to where it's just one goal, that would make it much easier for us to meet.

The City complains about the size of our [engineering] teams and the complexity of those teams, but they are driven by the City's own requirements.... Stratification of the requirements makes putting a team together very difficult. And it makes it impossible, completely impossible to have a compact team.

Dividing up the portions, whether it's to MBE WBE or the African, Hispanic, Asian and WBE; what ends up happening is we end up being forced into finding somebody that is of that ethnicity to perform what you need, rather than maybe the best qualified.

Where it falls apart in particular, is on the [indefinite delivery-indefinite quantity contracts] where there's no specific project, you put together these large teams with no scope known. And when you get through the scoping process, you find out there's really no way to meet the goals by each category. So, I really think a suggestion on those larger IDIQ submittals, is to maybe at least break it down between MBE, WBE as a generic number, with the intent maybe to still try to meet the split goals. But if you can't, it's not a justification process as to why you didn't do it, because a lot of times the intent is there, there's just no scope to do it, and some of the firms aren't even registered to do that kind of work. So, it puts the prime in a little bit of a difficult situation when you're trying to meet the goals, but it becomes difficult and cumbersome.

Usually meeting with the Hispanic goal is pretty easy. Meeting the Asian and Native American goal is very difficult. Women owned is usually not a problem.... The Hispanic Contractors Association is very strong, very good. You can reach out to them. They'll send solicitations out. They're very active with their members. Other times the African American trades, the Asian trades, half the time their numbers and their emails don't work.

Meeting the goals for Black-owned firms was reported to be especially difficult.

That's been a challenge, having more African Americans joining the Program and that perform commodity codes that are in the business of water and wastewater.

The African American category in matching the list, isn't that long, the list of services that the firms that are providing isn't that long. And I think that's the one we struggle with the most is matching African American things best with the scope that is being asked for in that project.... If it's a big project that needs all kinds of disciplines, and all kinds of engineers, not too hard, but if it's, you got like a small renovation, right, there's only a few disciplines and that's where it gets trickier.

One of the difficulties that we run into is that there are quite a few African American contractors, they're all truckers, or they all do the same scope of work. And so, if they're not low and say a Hispanic company is low for trucking, then we're going to use that Hispanic company that we use 75% of the time on other projects. We run into that a lot, because we do our own earth work, we do our own underground, we do our own concrete. So, we're limited to the people that we can utilize, and so you have the same groups of people that do the same scopes of work, so you can only pick one, so that limits our goals.

There is a scarcity of African American firms that serve consulting engineering. It's just difficult to find them, and so nurturing African American engineering firms would be a huge benefit to the consultants in the community that can't find them to fill those goals.

Black and Asian [firms] maybe are so rare, they're charging a premium.

The City's scoring criteria for quality-based selection projects works against using newer certified firms.

We need to figure out the better process of how to integrate newer companies that come into the business without much experience where, when you make a submittal, there's not negative points, I guess is the way to phrase it. Where, as a team structure, you haven't worked together before, or they don't have as much of a history. So, I think the City wants it to be that way. I don't think that's how it comes across when you're submitting an RFQ. So, we feel we get boxed into using a certain group of folks a lot of times, which we're happy to do when we've worked with them for 20 years, but, it is hard to try to spread to different firms and get selected.

Some large prime firms suggested the City accept minority and woman certifications from other entities.

The big issue we find is every entity has their own certification route, whether it's the City of Houston, City of Austin. You're getting a small sample of the available subcontractors and in this market with as much work as there is, there's not as big a pool. I think one thing would be trying to open it up to other certification agencies to allow their minority small businesses to be included in the City of Austin.

Asian and the Native American and the African American [firms] are limited here in town. So, if you're able to reach out to somebody in Houston that has that certification that might be working a job here in Austin, to me, that's helping the whole chain go along and I really do think they need to open it up more.

SMBR provides a list of MBEs/WBEs certified in the commodity codes in which participation might be achieved with solicitations. Some large prime vendors stated that these codes were often unrelated to the project, and they questioned the understanding of the staff of the user departments that chose to include these codes.

Oftentimes, when we have raised those items, those questions for commodity codes that may be relevant or non-relevant to the project, the ones that are not relevant, they seem to state that we wouldn't be in compliance if we didn't solicit for those codes, even though they're not applicable to the project or they've mistakenly included them. So, we do have to do the Good Faith Effort for included portions of work that have nothing to do with the project. It's fairly typical.... There's a lack of knowledge between the engineering, the construction and the capital contracting office and the SMBR. They're all individual departments and they do not work together all that well.

Half the list was mechanical contractors that aren't consultants, aren't licensed to do engineering, aren't licensed to do consulting, we had to weed through that list to get to one or two on the actual list that could actually perform the work.

The City staff is not fully understanding what they're asking and that can be frustrating.

Some bidders complained that the solicitation lists were further problematic because too often, the firms do not provide the services needed for the project.

We work with a lot of minority firms, a lot of them, and the solicitation lists that we have, half the firms respond to us saying, why are you sending me so much information? We don't want to be on your list. Well, then get off the City list, number one. We get the solicitation list by category. If I'm looking for dirt work, then the City sends out a list just for the dirt work. We are required to solicit each firm in two different manners, be that an email and fax or via mail. We have to solicit them twice for every job. They may get two or three emails. If they fall under multiple categories... they may get six if they fall into three categories. Then they get angry because they're getting too much, they're being bothered with us soliciting them.

We spend a lot of money soliciting because not everybody on the list has an email address. Not everybody on the list has a fax number. I have to send this solicitation out two different ways. I have email, fax, or mail. I spend a tremendous amount of money mailing out solicitations for no response at all. Nothing.

I can go through [the list provided] before I even send out the solicitation and know what the response is going to be, but I have to send it out anyway, because they're on the list.

Several bidders reported that the City's certification list contains outdated or incorrect information. Errors ranged from the wrong email addresses to firms being listed under commodity codes for work they do not perform.

This email is wrong, this fax number is wrong, this address is going to come back as undeliverable.

Many of the vendors or subcontractors, on the list that we are provided, do not actually perform the type of work that they're categorized for under their commodity code section. So much of the subcontract vendor list, much of the data is inaccurate within the list.... 75% of the phone numbers are valid; 25% do not work or invalid numbers; 50% of the emails are valid and 50% are not working emails; and 25% of the fax numbers work; and 75% of the fax numbers do not work.

It is our understanding from working with the SMBR that they have developed, or they have put the contact information and the contractor information and the registration of those codes, supposedly is now in the hands of the vendors or subcontractors to ensure that their information is accurate within the system.

There're some folks that are listed doing every trade and they do every trade and they hold every license, but in fact, they don't. That's part of the cleaning up list, if they're not performing HVAC work then they shouldn't be in the HVAC.

There was a food truck vendor down for plumbing and electrical. When we solicited them, because they were on the mandatory list they responded to me and said, "Why are you sending this, we're a food truck?" Why did you sign up for electrical and plumbing? Why wasn't that verified with the City before they put them on the list?

Several companies will just add a bunch of things because it will increase, in their mind, it will increase the number of opportunities that they'll receive, but if there was some way to limit that to just their primary or just limit the number of different things they could tag themselves under, because especially with large GCs like [name]. If a company is primarily a plumbing company but maybe they've done some millwork. We're not going to hire them for millwork. We want to hire them for their expertise, not their sometimes-occasional work.

Because of uncertainty about meeting the goals on bid day, some prime firms collected good faith efforts documentation even if they expect to meet the goals. Or took extra steps to ensure they would not be found to be non-responsive. Whether you submit the plan or not, you still have to have gone through all the hoops, right? Because you don't know that you're going to meet the goal until it's too late to evidence the good faith effort, right? So, you're still having to go through all of it. And then even if you meet the goal you don't have to prepare the documentation to submit, but you still have to have done the same activities.

We often go above and beyond the two forms of contact for solicitation, because it is not specified whether or not you have to have two successful forms of contact, or if two failed forms of contact are acceptable. So, our belief is that you have to have two successful forms of contact in order to meet the requirement. So, we often perform a third form of contact.

A number of bidders had their good faith efforts documentation initially rejected.

We had done a full Good Faith Effort with documentation. They had verified with a few subcontractors. They Couldn't recall if we contacted them because they were on the list, and they provided a response to the SMBR that they couldn't recall, and they deemed us unresponsive. We were upset with that decision, so we filed a notice to protest that decision. And we provided the same backup for our Good Faith Effort that was originally submitted with our official protest. And we won the protest because all of the documentation was there, they just didn't bother to review it.

Several construction bidders had successfully submitted documentation of their good faith efforts to meet contract goals.

As long as we turn in a good faith effort we haven't had any trouble with that. A few years ago, we did get thrown out of a bid and we had to protest and we were successful with our protest because a minority bidder said that we didn't accept their solicitation. And the solicitation was due by midnight. The bid was due on the sixth of the month. We asked for our solicitations to be turned in by midnight on the fourth, and this firm turned their bid at 3:00 AM of the sixth and then said we didn't respond to them. Well, our bid was to 10:00 AM to the City and they sent it in at 3:00 AM and we didn't even have time to look at it. So, when we disputed it and showed the backup documentation, they put us back into the running for the project. That's the only time in 29 years that we had an issue.

Other firm representatives stated that if they cannot meet all the goals, they do not submit for the project.

If I ever would've had to have gone through that good faith effort, I probably would decide I'm not going after this job. It's too onerous a process. So, if I can't make the goalsmeet the goals for whatever reason, well then I'm not going to pursue the project.

You're going to comply with the Program, fill in the paperwork, make your team accordingly. Doing the good faith effort is just not even an option.

Some participants objected to having to put their competitors on teams.

We ended up having to add direct competitors on our team. And that can be difficult in itself, because and I'm talking primarily about on-call type contracts; where these competitors that we're adding, and minority competitors are also being awarded a prime contract. And they may be, let's say, there's a woman-owned or Hispanic-owned, those firms end up on multiple teams and get a prime contract. It's challenging when you are forced, I guess, to use your competitors because there's no other subcontracting opportunities.

The ability to substitute a poorly performing certified subcontractor was another issue for many prime vendors.

If you have somebody not performing, what you end up doing at the City is you do the work on your nickel to make sure the project stays on schedule. You pay that sub the same amount you were gonna pay them, they get a free ride. You can't get them off your team. It's almost impossible to switch a team member out.

We were trying to change one of our subs and it took us four months of paperwork with the City to change sub, and it was a mess.

The effort it takes to resolve that is very complex because that firm may still be in business. They may no longer be M/ WBE or they may no longer be in business and it's just a sort of long paper trail to get to some resolution on those. Others reported no problems with substitutions.

We've never had an issue with doing that. Once we explained to them the situation, they understand.

2. Business Owner Survey Comments

Written comments from the electronic survey have been categorized and are presented below. Comments are indented and have been edited for readability.

a. Obtaining City of Austin Work

As with the interviews, MBEs/WBEs strongly supported the Program. Most minority and woman respondents viewed the Program and goals as necessary to obtain City work and level the playing field.

The CoA MBE/WBE program allows large firms to add small and MBE/WBE firms to their team; without the aspiration goal, the large firm will self-perform and will lead to disadvantaged firms going out of business.

[The Program] allows me more opportunities.

As a minority business - women owned, the program is very helpful. Again, my volume of work is on an as needed basis. I have not responded to bids for FAA contracts.

Goals establishing the percentage of M/WBE/DBE participation that the GC must meet has helped my business.

[The Program] gives me a chance to bid on projects.

[The Program has] helped City Departments meet their WBE/DBE goals, so it's a plus in getting contracts.

Have received contracts because of them [the goals].

[The Program] helps fill gaps with other opportunities.

We have designed a couple of small projects at the airport and having the WBE certification was a help to get those. Aviation is a big part of our portfolio so we hope to get more opportunities at ABIA.

Keep providing help and demand M/WBE DBE participation.

I received an Austin contract because I am WBENC certified.

The WBE program has alleviated the barriers to contracting opportunities, as prime firms will give my company a chance so they can meet their WBE requirement.

I use my certification for marketing purposes as a subcontractor.

The program has helped us develop new client relationships.

I use my certification to get subcontracted [sic].

[The Program] did generate more business.

[The Program] has helped us achieve access to contracts.

[The Program] has worked well for airport activity.

Many times [the program has helped my business], because of the work my company does.

[The Program] provides equal or better opportunity to obtain contracts.

[There is] some benefit to being MWBE certified.

Some contracts are specifically looking for those certifications.

[The Program has helped], some.

The FAA contracts are way more favorable than the MBE contracts.

While the Program has helped many firms, others indicated they have not derived much benefit from it.

Has not affected [our firm].

Hasn't [helped] yet.

[The Program] has not helped in anyway [sic].

I have not benefitted from FAA contracts.

I haven't received any [benefit from the Program].

So far, we have not gotten any City contract that had Austin M/WBE or DBE goals. If there are any out there it is a battle to qualify.

[The Program] has not [helped my business].

It has not helped me. I am registered as an AISD vendor but have not received any opportunities. I have tried direct marketing but have received no responses and many emails. I try to send individually to contact people [and they] bounce.

[The Program] has not helped, nor has it hindered.

[The Program] has NOT [helped].

[The Program has not [helped]. It does not appear to be taken into consideration during the award process. HUB has been significantly more impactful.

NO, it is very hard to get on the City's rotation list.

[The Program has] not as much as I hoped.

Nothing at this point.

[The Program] has helped very little!

We have not yet captured any FAA contracts despite the City's M/WBE and DBE programs.

Many found the certification process difficult to navigate, paperwork intensive, and cumbersome.

COA's certification process is more cumbersome than the Comptroller's HUB Certification. Too much of a hassle.

I chose to let past certifications lapse... I have a lot of projects and no patience for such cumbersome bureaucracy.

Filling in all the paperwork [for certification] is a big barrier, it's a non-starter for a small firm.

The [certification] application process is complex. It would be more accessible if it were more user friendly.

I tried a few times to get certified as a woman-owned business, but the process was so complicated and involved, and I decided to just not do it.

[I am] not sure of the process. Too many variations.

The City's process is prohibitive. I was with the state but it expired during COVID and it was hard to get all the documents I needed.

The cost and excessive paperwork to become certified through certain Woman Owned Business organizations is ridiculous, and many cities are relying on that one group for certification. They are abusive and take your money without delivering services.

The process is cumbersome. This time, I got stuck with the personal net worth statement.

The process is intensive and we don't have time to dedicate to it. We are HUB certified.

We were with COA, [and have] been a struggling to get certified again. As a TX HUB, I find the WBE [certification application] asks for duplicative information.

[It would help] having an administrative resource walk me through the certification process, where I bring everything that is needed and we go through the process together.

Some reported that the information required for certification is too invasive.

Please make the [certification] application process less invasive in regard to personal information. Other agencies do not require such highly classified information and I am uncomfortable with the amount of scrutiny.

I was [certified] with the state but it expired. The City's process is invasive and requires too much sensitive information that doesn't affect just me.

The process of providing tax returns and proving I am a woman and from another culture is very cumbersome, invasive, insulting and in of itself asks we "others" to prove things White people do not have to access to [for] the same contracts, thereby setting up a barrier. AND, I am a common sense, easy going ex-lawyer [sic] who understands the context, so the fact that I was angry after spending 30 mins reviewing all the ways I had to "prove" myself for this process is information.

A few women thought that the City's current net worth and average annual receipts requirements are too low and restricted opportunities for MBEs/WBEs.

Giving opportunities for women irrespective of their net worth.

A higher WBE [and MBE] maximum income threshold or not including spousal assets. My husband's retirement assets (which he is about to embark on) make my own ability to meet the threshold difficult. It seems that the WBE certification should be about the business itself and the business owner--not the spouse.

A higher WBE maximum income threshold.

Please also review the owner net worth to see if it is still consistent with the City goal.

One respondent would like to see the City do more to include LGBTBowned firms in the Program.

Having the City of Austin do as many, many other entities do, accept and recognize LGBTBEs in procurement policies.

The City's bonding and insurance requirements were reported as costly barriers for small firms.

It is very costly for me to purchase insurance for COA. I also know of another female contractor who bought insurance for COA for a small contract she was to work on, and the Human Resource Department [HRD] decided not to go ahead with that contract so she wasted her money.

Reasonable insurance requirements [are needed] so we can afford to buy and maintain insurance without forfeiting the lion's share of the contract funds to insurance costs.

The securing of insurance and bonding is difficult for me as my volume of work is not high like a bigtime firm.

Cost of insurance required to do business with the COA and funds to cover the cost while waiting for reimbursement.

One respondent reported that the discontinuance of the mandatory prebid contact form has had negative consequences for MBE/WBE firms by reducing the number of quotes submitted to prime bidders.

The City of Austin needs to require prime bidders fill out a contact form a few days before bids are due so subs can provide quotes to all prime bidders. This could be done by simply calling/emailing the COA project manager for the given project or completing a form on Austin Finance Online. A mandatory pre-bid used to be required for primes so it was simple to provide quotes to all bidders. I was told that the mandatory pre-bid was discontinued to remove barriers to prime bidders, but this has created a huge barrier to subs. This is a critical barrier for my business.

Timely payments were cited as a way to help MBEs/WBEs by several minority and woman respondents.

Payment is a big deal. So, if COA made sure they paid the prime within 20 days of all MWBE invoices and that the prime paid all MWBEs within 10 days for getting paid, it would help so much.

Faster payment [would be helpful].

Help with more prompt payment.

GCs to pay within 30 days [would help].

A few MBE/WBE respondents felt that City staff harbor biases against certified firms.

My experience on some projects has been that City staff arrives with preconceived ideas about the competence of Hispanic women. In some cases, our opinions are overlooked or not encouraged.

To make it short, my experienced observance is that much less experienced and perhaps less educated staff/ individuals make assumptions that may make them feel better about themselves in talking down to you.

[I] feel that when I ask for help in contracts, the way the counselors respond makes me feel like I'm not welcomed.

Others suggested that more could be done to expand the pool of MBEs/ WBEs that are used on projects.

M/WBE and DBE program goals may not be sufficient in broadening opportunities for new firms if the project evaluation criteria are heavily skewed toward the incumbents who have already worked with the City.

COA seems to use the same firm over and over.

Existing primes seem to have their current/existing partners and are hesitant to bring on others since use of existing [partners] meets the hub goals/requirements. A non-MBE/WBE contractor agreed that the City is prone to use the same firms and should consider broadening its selection process.

City Staff selection process being more open to innovation and allowing relevant project experience to count more rather than being so heavily weighted to incumbent's experience.

Some minority and woman respondents suggested that the City offer smaller projects or "unbundle" contracts to increase access to contracting opportunities.

I would greatly appreciate more opportunities, even on a smaller scale if necessary, to open the relationship for further collaboration.

Please try to break the project package into smaller [pieces] with ranges that allow MBEs/WBEs/DBEs to compete.

Smaller contract packages designed for smaller and disadvantaged firms.

Additional opportunities, even on a small scale to showcase the skills we can bring to a professional relationship and project.

Manageable small business, multi-year contracts [are needed].

Offering smaller contracts [would be helpful].

Smaller programs directed at W/MBE freelancers/ consultants.

More opportunities for smaller firms in professional services.

Several MBE/WBE respondents requested more opportunities to perform as prime contractors.

It would be nice to have opportunity to work directly with City and not try to go through prime vendors. I can't control how prime vendors present my information.

[I would like more] work as a prime.

City staff typically overlook small minority firms in general and ignore our good local experience.

There are not many HUB/DBE firms that work as a prime for the City of Austin.

A few respondents stated that the City has favored firms.

Seems that vendors are chosen before the posting and awarded to that pre-chosen vendor. Maybe a vendor that they have worked with before but it is unknown if they are HUB, SBA or WBE certified businesses.

City of Austin departments are notorious for awarding contacts to former City council members and other firms/ individuals who have ties to the awarding agency, but sometimes are less qualified and charge a higher rate. If COA were to make an effort and show steps they've taken to make the award process across all departments more competitive, we would be interested in submitting proposals. For the time being we've halted any efforts to pursue business with the City.

A few minority and woman respondents felt that prime vendors had greater access to City staff and as a result were able to obtain more bidding and project information.

It seems as though the bigger firms have more information directly from the departments.

The communication with the City of Austin is not easy to deal with. Phone calls go unreturned on a regular basis.

Prime firms often have access to more information about projects and upcoming work because they get more face time with the City.

We are not notified of bidding opportunities.

Not sure how to go about networking for bids. Every time I call the office, they say I need to network but not sure where.

Greater access to City staff is needed.

Give recommendations on how to receive no-bid project opportunities or how to effectively communicate with point people in the various City of Austin agencies. I cannot get through the red tape.

Contacts within the departments that are buying our services so we can provide information on our services.

More exposure to City of Austin staff. More small contract lists that cater towards W/MBE firms and allow more firms to work for the City of Austin and [as] a prime. In our experience it's extremely hard for new firms to break into the City of Austin as a prime and often the same firms are selected over and over.

Opportunity to meet with program managers.

b. Capacity Building Initiatives

Many minority and woman respondents requested additional support to facilitate relationship building between subcontractors/subconsultants and prime contractors/consultants.

Better networking opportunities, especially with decision makers, [would be helpful].

Please work to facilitate networking events between contractors, not just City entities.

More networking with firms to be included as part of collaborations or joint ventures.

Networking, word of mouth, advertising [would be helpful].

[Networking] opportunities to showcase the company's history, experience and successes.

One respondent would like to see more focus on Spanish speakers.

More outreach to Spanish speakers.

Several respondents requested more outreach from the City about contract opportunities in general and in specific industry sectors.

Having access to the information about purchasing opportunities would go a long way.

Learn about the City of Austin's IT initiatives around communication, collaboration, remote work and hybrid work.

I'm in the semiconductor consumable spares industry. We could support the universities and such places but don't know how to navigate to that area.

[My business would benefit from assistance in] navigating through the City of Austin's Hub Zone, to get into the military and biotech sector.

Exposure to other market sectors.

Minority and woman respondents who participated in the City's supportive services programs found them beneficial.

All [the supportive services in which we have participated] have been beneficial to our firm.

Helpful in building relationships and sharing lessons learned, positive and negative, with new companies wanting to perform work for GCs and to do business with government entities.

The classes in marketing and business plan development were helpful.

[Supportive services] can be very effective.

[Our experiences with supportive services have been] very good.

A few reported that they found these programs to be paperwork intensive and not helpful.

It's good information, and yet... then what?

They [supportive services] did nothing to gain us contracts, experience, or contacts.

Very tough paperwork [to participate in supportive services] and not very helpful.

The process [for supportive services] is different than other projects. The paperwork can be a lot to deal with. And since the numbers have to be exact (to the penny) it can be a little frustrating.

Some MBE/WBE firms who had participated in joint ventures and mentor protégé programs reported good outcomes from these partnerships.

A large prime helped me establish bonding, now have \$30 million in bonding; joint venture with another small business with more experience, this has been a success.

We have partnered with other firms, but not technically joint ventures. All have been beneficial in that we have been able to work on projects that we would not otherwise have been able to obtain. Same for Mentor protege program we were involved in. Others did not find them helpful.

[The joint venture] did not work out.

We have tried to do JVs with other firms, however, most JV programs are setup for subcontractors and they aren't that interested in doing a JV with a supplier. And when we have had those conversations their attitude is that [name] or the MWBE really doesn't do anything so the MWBE doesn't need to make that much money in terms of margin. It's a very hard sell for the upper management and accounting people at the prime for the JV to be a win-win.

It ended quickly due to the main contact person leaving the mentor company.

Nevertheless, mentor-protégé programs and partnerships were seen as important approaches to help minority- and woman-owned businesses.

Mentor Protege for airport projects and [the new project plan for Austin Transit] Project Connect.

Mentorship programs would definitely help my business grow and [eliminate] the impediment from registering as a supplier to becoming a supplier.

Partnering with primes that hold the large City contracts [would be helpful].

Implementing a mentor protégé program would greatly help W/MBE firms and encourage partnership with prime firms.

It does not appear the City of Austin has a Mentor protege program but we would be very interested if they implement one.

Many MBE/WBE firms requested more insurance, bonding, and financing services to help increase their capacity.

We tried for two years and was not able obtain any loan from the City of Austin Family loan program to which we felt we were well qualified for the \$30,000 limit loan from SMBR. This was a painful experience.

The City should offer small, minority, high risk business loan opportunities even if the firms have to pay higher interest or have more aggressive terms. At least the firms will have an opportunity to compete. Access to significant cash flow to submit as Prime.

[Our firm would like] access to funding.

Accessible loans and training [are needed].

[Our firm needs help with] capital.

Capital, more reachable contract opportunities [are needed].

Financial support, loans/grants, etc. would be helpful.

Maybe affordable line of credit.

Provide guidance to us with securing bonds, insurance credentials. The driving factor is the amount of finance required to secure these items.

More information for financing the jobs.

A few requested the City provide assistance with general business services and training.

Provide capacity-building opportunities.

Educate contractors on COA culture, needs, preferences, etc.

More marketing and public relations [support services would be helpful].

Services that teach business foundations.

Also, a program like direct assistance for business development would help a great deal.

I think more collaboration with organizations, like EGBI would make a significant difference in getting companies certified and bidding for City contracts.

C. Conclusion

The City of Austin implements a Program that complies with constitutional requirements, M/WBE program national best practices. Overall, M/BEs and WBEs were able to access the programs for City prime contracts and associated subcontracts. Most participants supported the City's MBE/WBE Program overall and generally reported the programs are important to their growth and development. Prime contractors were generally able to comply with Program requirements.

However, there are some concerns to address, including broadening the selection process for qualifications-based solicitations, facilitation of relationships between MBEs/WBEs and large firms; providing more communication about prospective bidding opportunities and access to City staff; increasing access to capital and surety bonds; reducing contract size and complexity; reducing the difficulty of sub-contractors moving into the role of prime contractors; and reviewing policies that make it difficult for small minority- and woman-owned firm participate in the Program.

City of Austin Disparity Study 2022

IV. CONTRACT DATA ANALYSIS FOR THE CITY OF AUSTIN

A. Contract Data Overview

We analyzed City of Austin contract data for 2013 through 2018 for its locally funded contracts. The Initial Contract Data File contained 4,737contracts. Because of the large number of contracts, CHA constructed a random sample of 1,069 contracts. Of these contracts, we were able to collect full data on 1002.

In order to conduct the analysis of the sample, we constructed all the fields necessary for our analysis where they were missing in the City's contract records (*e.g.*, industry type; zip codes; six-digit North American Industry Classification System ("NAICS") codes of prime contractors and subcontractors; MBE and WBE subcontractor information, including payments, race, gender etc. The result was the Final Contract Data File ("FCDF") for analysis. Tables 4-1 through 4-2 provides data on the FCDF.

Contract Type	Total Contracts	Share of Total Contracts
Prime Contracts	1,002	54.3%
Subcontracts	842	45.7%
TOTAL	1,844	100.0%

Table 4-1: Final Contract Data File

Source: CHA analysis of City of Austin data

Table 4-2: Final Contract Data File Net Dollar Value

Business Type	Total Contract Dollars	Share of Total Contract Dollars
Prime Contracts	\$826,453,073.73	76.8%
Subcontracts	\$249,783,337.28	23.2%
TOTAL	\$1,076,236,411.01	100.0%

Source: CHA analysis of City of Austin data

B. Methodological Framework

First, we determined the geographic and product markets for the analysis. Next, we estimated the utilization of MBEs/WBEs by the City. Third, we used the FCDF, in combination with other databases (as described below), to calculate MBE and WBE unweighted and weighted availability in the City's marketplace. Finally, we analyzed whether there are any disparities between the City's utilization of MBEs and WBEs and MBE and WBE weighted availability.

C. The City's Geographic and Product Market

As discussed in Chapter II, the federal courts¹⁶¹ require that a government agency narrowly tailor its race- and gender-conscious contracting program elements to its geographic market area. This element of the analysis must be empirically established.¹⁶² The accepted approach is to analyze those detailed industries, as defined by six-digit NAICS codes,¹⁶³ that make up at least 75% of the prime contract and subcontract payments for the study period.¹⁶⁴ The determination of the

City's geographic and product market requires three steps:

- 1. Describing the Final Contract Data File to determine the product market.
- 2. Identifying the geographic market.
- 3. Determining the product market given the geographic parameters.

Table 4-3 lists all of the NAICS codes in the Final Contract Data File. Table 4-4 identifies the City's geographic market. This step of identifying the geographic market imposes a spatial constraint on this data set. Having established the geographic market, we determined the product market by constraining the Final Contract Data File by this spatial parameter. Table 4-5 presents these results.

1. The Final Contract Data File

The FCDF, which establishes the City's product market, consists of 222 NAICS codes with a total contract dollar value of \$1,076,236,410. Table 4-3 presents

163. www.census.gov/eos/www/naics.

^{161.} *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 508 (1989) (Richmond was specifically faulted for including minority contractors from across the country in its program based on the national evidence that supported the USDOT DBE program); *see* 49 C.F.R. §26.45(c); https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise ("D. Explain How You Determined Your Local Market Area... your local market area is the area in which the substantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars.").

^{162.} *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1520 (10th Cir. 1994) (to confine data to strict geographic boundaries would ignore "economic reality").

^{164.} J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program,* National Academies of Sciences, Engineering, and Medicine, 2010 ("*National Disparity Study Guidelines*").

each NAICS code with its share of the total contract dollar value. The NAICS codes are presented from the code with the largest share to the smallest share.

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
238990	All Other Specialty Trade Contractors	8.1%	8.1%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.5%	15.6%
237310	Highway, Street, and Bridge Construction	7.2%	22.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	6.7%	29.5%
541511	Custom Computer Programming Services	6.6%	36.0%
541330	Engineering Services	4.6%	40.6%
524114	Direct Health and Medical Insurance Carriers	3.7%	44.3%
812930	Parking Lots and Garages	3.2%	47.5%
237110	Water and Sewer Line and Related Structures Construction	2.9%	50.4%
236220	Commercial and Institutional Building Construction	2.8%	53.1%
561421	Telephone Answering Services	2.7%	55.8%
561730	Landscaping Services	2.3%	58.1%
238910	Site Preparation Contractors	2.3%	60.4%
561320	Temporary Help Services	1.8%	62.2%
562111	Solid Waste Collection	1.7%	63.9%
444190	Other Building Material Dealers	1.6%	65.5%
441110	New Car Dealers	1.3%	66.8%
541310	Architectural Services	1.3%	68.2%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.3%	69.4%
517312	Wireless Telecommunications Carriers (except Satellite)	1.2%	70.6%
238390	Other Building Finishing Contractors	1.2%	71.8%
561990	All Other Support Services	1.0%	72.9%

Table 4-3: Industry Dollars Distribution of City Contracts by Percentage

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.9%	73.8%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.9%	74.6%
238110	Poured Concrete Foundation and Structure Contractors	0.8%	75.5%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.8%	76.2%
541513	Computer Facilities Management Services	0.7%	77.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.7%	77.7%
541512	Computer Systems Design Services	0.7%	78.3%
238310	Drywall and Insulation Contractors	0.6%	79.0%
541211	Offices of Certified Public Accountants	0.6%	79.6%
237990	Other Heavy and Civil Engineering Construction	0.6%	80.2%
811198	All Other Automotive Repair and Maintenance	0.6%	80.8%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.6%	81.3%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.5%	81.8%
541380	Testing Laboratories	0.5%	82.3%
562920	Materials Recovery Facilities	0.5%	82.8%
811111	General Automotive Repair	0.5%	83.3%
238120	Structural Steel and Precast Concrete Contractors	0.5%	83.8%
238350	Finish Carpentry Contractors	0.5%	84.3%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.5%	84.7%
522110	Commercial Banking	0.5%	85.2%
441310	Automotive Parts and Accessories Stores	0.4%	85.6%
236210	Industrial Building Construction	0.4%	86.0%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.4%	86.4%
561612	Security Guards and Patrol Services	0.4%	86.7%
221121	Electric Bulk Power Transmission and Control	0.4%	87.1%
541370	Surveying and Mapping (except Geophysical) Services	0.4%	87.4%
561312	Executive Search Services	0.3%	87.8%
237130	Power and Communication Line and Related Structures Construction	0.3%	88.1%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.3%	88.4%
238150	Glass and Glazing Contractors	0.3%	88.8%
531190	Lessors of Other Real Estate Property	0.3%	89.1%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.3%	89.4%
541990	All Other Professional, Scientific, and Technical Services	0.3%	89.7%
238290	Other Building Equipment Contractors	0.3%	89.9%
562910	Remediation Services	0.2%	90.2%
238140	Masonry Contractors	0.2%	90.4%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.2%	90.6%
541620	Environmental Consulting Services	0.2%	90.8%
561720	Janitorial Services	0.2%	91.1%
333316	Photographic and Photocopying Equipment Manufacturing	0.2%	91.3%
236116	New Multifamily Housing Construction (except For-Sale Builders)	0.2%	91.5%
453210	Office Supplies and Stationery Stores	0.2%	91.7%
443142	Electronics Stores	0.2%	91.9%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.2%	92.1%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
517911	Telecommunications Resellers	0.2%	92.3%
624190	Other Individual and Family Services	0.2%	92.5%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.2%	92.7%
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	0.2%	92.8%
221122	Electric Power Distribution	0.2%	93.0%
561621	Security Systems Services (except Locksmiths)	0.2%	93.2%
442110	Furniture Stores	0.2%	93.4%
238330	Flooring Contractors	0.2%	93.6%
424710	Petroleum Bulk Stations and Terminals	0.2%	93.8%
812331	Linen Supply	0.2%	93.9%
339113	Surgical Appliance and Supplies Manufacturing	0.2%	94.1%
327320	Ready-Mix Concrete Manufacturing	0.2%	94.2%
541110	Offices of Lawyers	0.2%	94.4%
423130	Tire and Tube Merchant Wholesalers	0.2%	94.5%
541690	Other Scientific and Technical Consulting Services	0.1%	94.7%
541930	Translation and Interpretation Services	0.1%	94.8%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.1%	95.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.1%	95.1%
515120	Television Broadcasting	0.1%	95.2%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0.1%	95.4%
238320	Painting and Wall Covering Contractors	0.1%	95.5%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.1%	95.6%
541820	Public Relations Agencies	0.1%	95.7%
454110	Electronic Shopping and Mail-Order Houses	0.1%	95.8%
561440	Collection Agencies	0.1%	96.0%
238160	Roofing Contractors	0.1%	96.1%
541870	Advertising Material Distribution Services	0.1%	96.2%
518210	Data Processing, Hosting, and Related Services	0.1%	96.3%
326212	Tire Retreading	0.1%	96.4%
334290	Other Communications Equipment Manufacturing	0.1%	96.5%
327332	Concrete Pipe Manufacturing	0.1%	96.6%
541320	Landscape Architectural Services	0.1%	96.7%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.1%	96.8%
531130	Lessors of Miniwarehouses and Self- Storage Units	0.1%	96.8%
611710	Educational Support Services	0.1%	96.9%
562991	Septic Tank and Related Services	0.1%	97.0%
562998	All Other Miscellaneous Waste Management Services	0.1%	97.1%
532111	Passenger Car Rental	0.1%	97.2%
541350	Building Inspection Services	0.1%	97.3%
332312	Fabricated Structural Metal Manufacturing	0.1%	97.3%
493110	General Warehousing and Storage	0.1%	97.4%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.1%	97.5%
541611	Administrative Management and General Management Consulting Services	0.1%	97.6%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
811219	Other Electronic and Precision Equipment Repair and Maintenance	0.1%	97.6%
624410	Child Day Care Services	0.1%	97.7%
423710	Hardware Merchant Wholesalers	0.1%	97.8%
541922	Commercial Photography	0.1%	97.8%
237120	Oil and Gas Pipeline and Related Structures Construction	0.1%	97.9%
621511	Medical Laboratories	0.1%	98.0%
711219	Other Spectator Sports	0.1%	98.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.1%	98.1%
523910	Miscellaneous Intermediation	0.1%	98.1%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.1%	98.2%
541720	Research and Development in the Social Sciences and Humanities	0.1%	98.3%
561110	Office Administrative Services	0.1%	98.3%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0.1%	98.4%
561790	Other Services to Buildings and Dwellings	0.1%	98.4%
611699	All Other Miscellaneous Schools and Instruction	0.05%	98.5%
423420	Office Equipment Merchant Wholesalers	0.05%	98.5%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.05%	98.6%
541420	Industrial Design Services	0.04%	98.6%
811192	Car Washes	0.04%	98.6%
323111	Commercial Printing (except Screen and Books)	0.04%	98.7%
525920	Trusts, Estates, and Agency Accounts	0.04%	98.7%
621111	Offices of Physicians (except Mental Health Specialists)	0.04%	98.8%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.04%	98.8%
221310	Water Supply and Irrigation Systems	0.04%	98.8%
238340	Tile and Terrazzo Contractors	0.04%	98.9%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.04%	98.9%
423840	Industrial Supplies Merchant Wholesalers	0.03%	99.0%
812910	Pet Care (except Veterinary) Services	0.03%	99.0%
442210	Floor Covering Stores	0.03%	99.0%
327110	Pottery, Ceramics, and Plumbing Fixture Manufacturing	0.03%	99.0%
621498	All Other Outpatient Care Centers	0.03%	99.1%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	0.03%	99.1%
444130	Hardware Stores	0.03%	99.1%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.03%	99.2%
332710	Machine Shops	0.03%	99.2%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.03%	99.2%
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	0.03%	99.2%
541910	Marketing Research and Public Opinion Polling	0.03%	99.3%
441210	Recreational Vehicle Dealers	0.03%	99.3%
624230	Emergency and Other Relief Services	0.03%	99.3%
237210	Land Subdivision	0.02%	99.4%
713940	Fitness and Recreational Sports Centers	0.02%	99.4%
424340	Footwear Merchant Wholesalers	0.02%	99.4%
446199	All Other Health and Personal Care Stores	0.02%	99.4%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.02%	99.4%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541340	Drafting Services	0.02%	99.5%
441222	Boat Dealers	0.02%	99.5%
541219	Other Accounting Services	0.02%	99.5%
423440	Other Commercial Equipment Merchant Wholesalers	0.02%	99.5%
541613	Marketing Consulting Services	0.02%	99.5%
541618	Other Management Consulting Services	0.02%	99.5%
212312	Crushed and Broken Limestone Mining and Quarrying	0.02%	99.6%
334516	Analytical Laboratory Instrument Manufacturing	0.02%	99.6%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.02%	99.6%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.02%	99.6%
512110	Motion Picture and Video Production	0.02%	99.6%
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	0.01%	99.6%
922110	Courts	0.01%	99.7%
424910	Farm Supplies Merchant Wholesalers	0.01%	99.7%
519130	Internet Publishing and Broadcasting and Web Search Portals	0.01%	99.7%
523930	Investment Advice	0.01%	99.7%
515111	Radio Networks	0.01%	99.7%
336411	Aircraft Manufacturing	0.01%	99.7%
531312	Nonresidential Property Managers	0.01%	99.7%
562119	Other Waste Collection	0.01%	99.7%
524113	Direct Life Insurance Carriers	0.01%	99.8%
561920	Convention and Trade Show Organizers	0.01%	99.8%
923120	Administration of Public Health Programs	0.01%	99.8%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
811211	Consumer Electronics Repair and Maintenance	0.01%	99.8%
811420	Reupholstery and Furniture Repair	0.01%	99.8%
611430	Professional and Management Development Training	0.01%	99.8%
561613	Armored Car Services	0.01%	99.8%
517311	Wired Telecommunications Carriers	0.01%	99.8%
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.01%	99.8%
524210	Insurance Agencies and Brokerages	0.01%	99.8%
451110	Sporting Goods Stores	0.01%	99.9%
611519	Other Technical and Trade Schools	0.01%	99.9%
811212	Computer and Office Machine Repair and Maintenance	0.01%	99.9%
624110	Child and Youth Services	0.01%	99.9%
813920	Professional Organizations	0.01%	99.9%
561492	Court Reporting and Stenotype Services	0.01%	99.9%
541430	Graphic Design Services	0.01%	99.9%
221210	Natural Gas Distribution	0.01%	99.9%
238130	Framing Contractors	0.01%	99.9%
621112	Offices of Physicians, Mental Health Specialists	0.01%	99.9%
923110	Administration of Education Programs	0.01%	99.9%
519110	News Syndicates	0.01%	99.9%
926110	Administration of General Economic Programs	0.01%	99.9%
512240	Sound Recording Studios	0.01%	99.9%
922130	Legal Counsel and Prosecution	0.01%	99.9%
523920	Portfolio Management	0.01%	99.9%
424120	Stationery and Office Supplies Merchant Wholesalers	0.01%	100.0%
561311	Employment Placement Agencies	0.005%	100.0%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
444110	Home Centers	0.005%	100.0%
337124	Metal Household Furniture Manufacturing	0.005%	100.0%
621399	Offices of All Other Miscellaneous Health Practitioners	0.005%	100.0%
423210	Furniture Merchant Wholesalers	0.004%	100.0%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.003%	100.0%
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	0.003%	100.0%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.003%	100.0%
327390	Other Concrete Product Manufacturing	0.003%	100.0%
541360	Geophysical Surveying and Mapping Services	0.002%	100.0%
541410	Interior Design Services	0.002%	100.0%
212321	Construction Sand and Gravel Mining	0.002%	100.0%
531390	Other Activities Related to Real Estate	0.001%	100.0%
541490	Other Specialized Design Services	0.001%	100.0%
621512	Diagnostic Imaging Centers	0.001%	100.0%
324121	Asphalt Paving Mixture and Block Manufacturing	0.001%	100.0%
321911	Wood Window and Door Manufacturing	0.0005%	100.0%
481219	Other Nonscheduled Air Transportation	0.0003%	100.0%
115112	Soil Preparation, Planting, and Cultivating	0.0002%	100.0%
332313	Plate Work Manufacturing	0.0002%	100.0%
519190	All Other Information Services	0.0001%	100.0%
TOTAL		100.0%	

Source: CHA analysis of City of Austin data

2. The City's Geographic Market

To determine the geographic market area, we applied the standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the FCDF.¹⁶⁵ Firm location was determined by zip code and aggregated into counties as the geographic unit. Contracts awarded to firms located in the State of Texas accounted for 90.0% of all dollars during the study period. The 19 counties within the four larger metropolitan areas in the state – Austin, San Antonio, Dallas-Fort Worth, and Houston – captured 92.2% of the state dollars and 82.9% of the entire FCDF. Therefore, these 19 counties were determined to be the geographic market for the City, and we limited our analysis to firms in these counties. Table 4-4 presents the distribution of the contract dollars in the geographic market across the 19 Texas counties.

County	Metropolitan Area	Pct Total Contract Dollars
Travis County	Austin	56.7%
Dallas County	Dallas-Fort Worth	12.6%
Harris County	Houston	9.3%
Bexar County	San Antonio	4.9%
Williamson County	Austin	4.1%
Fort Bend County	Houston	3.9%
Denton County	Dallas-Fort Worth	2.3%
Hays County	Austin	2.0%
Collin County	Dallas-Fort Worth	1.9%
Tarrant County	Dallas-Fort Worth	0.9%
Guadalupe County	San Antonio	0.4%
Comal County	San Antonio	0.4%
Bastrop County	Austin	0.3%
Montgomery County	Houston	0.2%
Caldwell County	Austin	0.2%
Ellis County	Dallas-Fort Worth	0.04%
Johnson County	Dallas-Fort Worth	0.01%
Brazoria County	Houston	0.01%
Hunt County	Dallas-Fort Worth	0.01%
TOTAL		100.0%

Table 4-4: County Distribution of Contract Dollars within the City's Geographic Market

Source: CHA analysis of City of Austin data

^{165.} National Disparity Study Guidelines, at p. 29.

D. The City's Utilization of MBEs and WBEs in its Geographic and Product Market

Having determined the City's geographic market area, the next step was to determine the dollar value of the City's utilization of MBEs and WBEs¹⁶⁶ as measured by net payments to prime firms and subcontractors and disaggregated by race and gender. There are 193 NAICS codes after constraining the FCDF by the geographic market; the dollar value of the contracts in these codes is \$892,331,145. Table 4-5 presents these data. We note that the contract dollar shares in Table 4-5 are equivalent to the weight of spending in each NAICS code. These data were used to calculate weighted availability¹⁶⁷ from unweighted availability, as discussed below.

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
238990	All Other Specialty Trade Contractors	\$86,632,888	9.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$76,654,928	8.6%
237310	Highway, Street, and Bridge Construction	\$74,830,240	8.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$64,143,216	7.2%
541511	Custom Computer Programming Services	\$50,703,912	5.7%
541330	Engineering Services	\$42,197,420	4.7%
524114	Direct Health and Medical Insurance Carriers	\$39,760,000	4.5%
812930	Parking Lots and Garages	\$34,288,280	3.8%
237110	Water and Sewer Line and Related Structures Construction	\$29,303,520	3.3%

Table 4-5: NAICS Code Distribution of Contract Dollars in the City's Constrained Product Market

^{166.} For our analysis, the term "M/WBE or MBE/WBE" includes firms that are certified by government agencies and minorityand woman-owned firms that are not certified. As discussed in Chapter II, the inclusion of all minority- and femaleowned businesses in the pool casts the broad net approved by the courts and that supports the remedial nature of these programs. *See Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 723 (7th Cir. 2007) (The "remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net.").

^{167.} See "Tips for Goal Setting in the Disadvantaged Business Enterprise Program" ("F. Wherever Possible, Use Weighting. Weighting can help ensure that your Step One Base Figure is as accurate as possible. While weighting is not required by the rule, it will make your goal calculation more accurate. For instance, if 90% of your contract dollars will be spent on heavy construction and 10% on trucking, you should weight your calculation of the relative availability of firms by the same percentages.") (emphasis in the original), https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	\$26,306,550	2.9%
238910	Site Preparation Contractors	\$22,909,360	2.6%
561320	Temporary Help Services	\$18,750,468	2.1%
562111	Solid Waste Collection	\$17,023,496	1.9%
444190	Other Building Material Dealers	\$16,625,642	1.9%
238390	Other Building Finishing Contractors	\$12,303,801	1.4%
517312	Wireless Telecommunications Carriers (except Satellite)	\$10,006,784	1.1%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$9,989,232	1.1%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$9,185,358	1.0%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	\$8,158,861	0.9%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$8,106,067	0.9%
541513	Computer Facilities Management Services	\$7,852,413	0.9%
238110	Poured Concrete Foundation and Structure Contractors	\$7,768,649	0.9%
541512	Computer Systems Design Services	\$7,337,869	0.8%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$7,078,844	0.8%
238310	Drywall and Insulation Contractors	\$6,763,876	0.8%
541211	Offices of Certified Public Accountants	\$6,331,077	0.7%
811198	All Other Automotive Repair and Maintenance	\$6,308,278	0.7%
237990	Other Heavy and Civil Engineering Construction	\$6,174,971	0.7%
541310	Architectural Services	\$5,910,786	0.7%
561990	All Other Support Services	\$5,871,974	0.7%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$5,686,546	0.6%
562920	Materials Recovery Facilities	\$5,278,951	0.6%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
811111	General Automotive Repair	\$5,268,178	0.6%
238120	Structural Steel and Precast Concrete Contractors	\$5,005,941	0.6%
238350	Finish Carpentry Contractors	\$5,004,772	0.6%
441110	New Car Dealers	\$4,729,893	0.5%
561730	Landscaping Services	\$4,340,227	0.5%
441310	Automotive Parts and Accessories Stores	\$4,257,229	0.5%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$4,255,722	0.5%
236210	Industrial Building Construction	\$4,218,424	0.5%
541380	Testing Laboratories	\$3,917,220	0.4%
541370	Surveying and Mapping (except Geophysical) Services	\$3,578,296	0.4%
541614	Process, Physical Distribution, and Logistics Consulting Services	\$3,525,155	0.4%
522110	Commercial Banking	\$3,471,172	0.4%
561312	Executive Search Services	\$3,463,635	0.4%
531190	Lessors of Other Real Estate Property	\$3,229,104	0.4%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$3,087,019	0.3%
237130	Power and Communication Line and Related Structures Construction	\$3,000,000	0.3%
221121	Electric Bulk Power Transmission and Control	\$2,953,717	0.3%
238290	Other Building Equipment Contractors	\$2,446,417	0.3%
541620	Environmental Consulting Services	\$2,364,360	0.3%
333316	Photographic and Photocopying Equipment Manufacturing	\$2,282,896	0.3%
562910	Remediation Services	\$2,236,362	0.3%
236116	New Multifamily Housing Construction (except For-Sale Builders)	\$2,193,758	0.2%
453210	Office Supplies and Stationery Stores	\$2,174,500	0.2%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
561612	Security Guards and Patrol Services	\$2,143,208	0.2%
624190	Other Individual and Family Services	\$2,099,762	0.2%
561720	Janitorial Services	\$2,082,834	0.2%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$2,050,980	0.2%
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	\$2,034,294	0.2%
221122	Electric Power Distribution	\$2,021,350	0.2%
442110	Furniture Stores	\$1,986,655	0.2%
424690	Other Chemical and Allied Products Merchant Wholesalers	\$1,961,289	0.2%
238330	Flooring Contractors	\$1,953,638	0.2%
424710	Petroleum Bulk Stations and Terminals	\$1,838,235	0.2%
812331	Linen Supply	\$1,822,495	0.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$1,729,854	0.2%
541110	Offices of Lawyers	\$1,662,245	0.2%
443142	Electronics Stores	\$1,644,379	0.2%
423130	Tire and Tube Merchant Wholesalers	\$1,434,031	0.2%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$1,418,759	0.2%
541930	Translation and Interpretation Services	\$1,411,840	0.2%
515120	Television Broadcasting	\$1,411,040	0.2%
541990	All Other Professional, Scientific, and Technical Services	\$1,259,392	0.1%
238160	Roofing Contractors	\$1,161,479	0.1%
238320	Painting and Wall Covering Contractors	\$1,156,854	0.1%
541870	Advertising Material Distribution Services	\$1,133,720	0.1%
518210	Data Processing, Hosting, and Related Services	\$1,095,353	0.1%
334290	Other Communications Equipment Manufacturing	\$1,029,775	0.1%
327332	Concrete Pipe Manufacturing	\$1,009,352	0.1%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
541320	Landscape Architectural Services	\$995,278	0.1%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$992,588	0.1%
531130	Lessors of Miniwarehouses and Self-Storage Units	\$985,401	0.1%
541820	Public Relations Agencies	\$927,306	0.1%
532111	Passenger Car Rental	\$869,082	0.1%
541690	Other Scientific and Technical Consulting Services	\$863,621	0.1%
541350	Building Inspection Services	\$861,280	0.1%
332312	Fabricated Structural Metal Manufacturing	\$830,091	0.1%
611710	Educational Support Services	\$821,418	0.1%
493110	General Warehousing and Storage	\$811,169	0.1%
562998	All Other Miscellaneous Waste Management Services	\$797,720	0.1%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	\$795,556	0.1%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	\$789,515	0.1%
624410	Child Day Care Services	\$720,848	0.1%
541922	Commercial Photography	\$694,548	0.1%
237120	Oil and Gas Pipeline and Related Structures Construction	\$691,617	0.1%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$683,609	0.1%
711219	Other Spectator Sports	\$677,209	0.1%
812320	Drycleaning and Laundry Services (except Coin-Operated)	\$673,096	0.1%
423710	Hardware Merchant Wholesalers	\$658,070	0.1%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$655,879	0.1%
523910	Miscellaneous Intermediation	\$642,128	0.1%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$621,245	0.1%
541720	Research and Development in the Social Sciences and Humanities	\$599,749	0.1%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	\$588,112	0.1%
561790	Other Services to Buildings and Dwellings	\$542,174	0.1%
561440	Collection Agencies	\$528,078	0.1%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$495,837	0.1%
811192	Car Washes	\$477,132	0.1%
323111	Commercial Printing (except Screen and Books)	\$463,463	0.1%
621111	Offices of Physicians (except Mental Health Specialists)	\$448,642	0.1%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$441,712	0.05%
327320	Ready-Mix Concrete Manufacturing	\$426,618	0.05%
562991	Septic Tank and Related Services	\$418,962	0.05%
238340	Tile and Terrazzo Contractors	\$389,710	0.04%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	\$387,363	0.04%
541420	Industrial Design Services	\$385,854	0.04%
423840	Industrial Supplies Merchant Wholesalers	\$349,498	0.04%
812910	Pet Care (except Veterinary) Services	\$347,075	0.04%
442210	Floor Covering Stores	\$344,183	0.04%
621498	All Other Outpatient Care Centers	\$337,480	0.04%
561621	Security Systems Services (except Locksmiths)	\$336,948	0.04%
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	\$299,577	0.03%
454110	Electronic Shopping and Mail-Order Houses	\$289,434	0.03%
541910	Marketing Research and Public Opinion Polling	\$278,623	0.03%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
441210	Recreational Vehicle Dealers	\$277,311	0.03%
624230	Emergency and Other Relief Services	\$271,200	0.03%
237210	Land Subdivision	\$266,923	0.03%
221310	Water Supply and Irrigation Systems	\$254,747	0.03%
238140	Masonry Contractors	\$238,629	0.03%
713940	Fitness and Recreational Sports Centers	\$232,698	0.03%
424340	Footwear Merchant Wholesalers	\$229,248	0.03%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	\$223,613	0.03%
541340	Drafting Services	\$210,175	0.02%
541219	Other Accounting Services	\$205,383	0.02%
423440	Other Commercial Equipment Merchant Wholesalers	\$205,330	0.02%
541613	Marketing Consulting Services	\$195,094	0.02%
212312	Crushed and Broken Limestone Mining and Quarrying	\$187,471	0.02%
339113	Surgical Appliance and Supplies Manufacturing	\$182,988	0.02%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	\$174,881	0.02%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	\$172,701	0.02%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$168,390	0.02%
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	\$160,540	0.02%
541611	Administrative Management and General Management Consulting Services	\$154,989	0.02%
922110	Courts	\$154,682	0.02%
424910	Farm Supplies Merchant Wholesalers	\$150,602	0.02%
519130	Internet Publishing and Broadcasting and Web Search Portals	\$147,233	0.02%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
523930	Investment Advice	\$144,626	0.02%
336411	Aircraft Manufacturing	\$125,000	0.01%
531312	Nonresidential Property Managers	\$124,992	0.01%
562119	Other Waste Collection	\$122,282	0.01%
923120	Administration of Public Health Programs	\$114,000	0.01%
811211	Consumer Electronics Repair and Maintenance	\$113,889	0.01%
811420	Reupholstery and Furniture Repair	\$109,265	0.01%
561613	Armored Car Services	\$104,265	0.01%
517311	Wired Telecommunications Carriers	\$100,554	0.01%
424130	Industrial and Personal Service Paper Merchant Wholesalers	\$98,992	0.01%
238150	Glass and Glazing Contractors	\$98,118	0.01%
524210	Insurance Agencies and Brokerages	\$96,981	0.01%
451110	Sporting Goods Stores	\$86,676	0.01%
611519	Other Technical and Trade Schools	\$84,164	0.01%
811212	Computer and Office Machine Repair and Maintenance	\$78,444	0.01%
624110	Child and Youth Services	\$77,421	0.01%
813920	Professional Organizations	\$75,000	0.01%
561492	Court Reporting and Stenotype Services	\$71,340	0.01%
541430	Graphic Design Services	\$68,527	0.01%
221210	Natural Gas Distribution	\$66,711	0.01%
238130	Framing Contractors	\$65,571	0.01%
512110	Motion Picture and Video Production	\$65,312	0.01%
561920	Convention and Trade Show Organizers	\$59,973	0.01%
621112	Offices of Physicians, Mental Health Specialists	\$59,700	0.01%
611430	Professional and Management Development Training	\$58,000	0.01%
519110	News Syndicates	\$57,250	0.01%
334516	Analytical Laboratory Instrument Manufacturing	\$56,321	0.01%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
922130	Legal Counsel and Prosecution	\$55,000	0.01%
523920	Portfolio Management	\$54,135	0.01%
561110	Office Administrative Services	\$53,105	0.01%
621399	Offices of All Other Miscellaneous Health Practitioners	\$50,000	0.01%
236115	New Single-Family Housing Construction (except For-Sale Builders)	\$35,123	0.004%
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	\$35,053	0.004%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	\$29,905	0.003%
327390	Other Concrete Product Manufacturing	\$29,743	0.003%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	\$21,450	0.002%
541410	Interior Design Services	\$19,950	0.002%
212321	Construction Sand and Gravel Mining	\$18,233	0.002%
531390	Other Activities Related to Real Estate	\$12,365	0.001%
621512	Diagnostic Imaging Centers	\$9,950	0.001%
324121	Asphalt Paving Mixture and Block Manufacturing	\$9,480	0.001%
321911	Wood Window and Door Manufacturing	\$5,092	0.001%
481219	Other Nonscheduled Air Transportation	\$2,734	0.0003%
115112	Soil Preparation, Planting, and Cultivating	\$2,425	0.0003%
332313	Plate Work Manufacturing	\$2,100	0.0002%
519190	All Other Information Services	\$1,546	0.0002%
TOTAL		\$892,331,145	100.0%

Source: CHA analysis of City of Austin data

Tables 4-6 and 4-7 present data on the City's MBE and WBE utilization measured in contract dollars and percentage of contract dollars.

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
115112	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,425	\$2,425
212312	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$187,471	\$187,471
212321	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,233	\$18,233
221121	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,953,717	\$2,953,717
221122	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,021,350	\$2,021,350
221210	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,711	\$66,711
221310	\$34,608	\$14,120	\$0	\$0	\$48,728	\$78,110	\$126,838	\$127,908	\$254,747
236115	\$0	\$35,123	\$0	\$0	\$35,123	\$0	\$35,123	\$0	\$35,123
236116	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,193,758	\$2,193,758
236210	\$0	\$1,072,230	\$0	\$0	\$1,072,230	\$0	\$1,072,230	\$3,146,193	\$4,218,424
236220	\$0	\$40,190	\$0	\$0	\$40,190	\$0	\$40,190	\$26,266,360	\$26,306,550
237110	\$112,099	\$1,915,632	\$366,982	\$0	\$2,394,713	\$577 <i>,</i> 946	\$2,972,659	\$26,330,860	\$29,303,520
237120	\$174,707	\$15,307	\$15,034	\$0	\$205,049	\$17,457	\$222,506	\$469,111	\$691,617
237130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000,000	\$3,000,000
237210	\$0	\$266,923	\$0	\$0	\$266,923	\$0	\$266,923	\$0	\$266,923
237310	\$155,720	\$2,348,351	\$0	\$61,551	\$2,565,622	\$2,493,865	\$5,059,487	\$69,770,749	\$74,830,237
237990	\$1,586,069	\$57,600	\$53,642	\$0	\$1,697,311	\$499,905	\$2,197,216	\$3,977,755	\$6,174,970
238110	\$93,209	\$406,441	\$0	\$0	\$499,650	\$2,122,829	\$2,622,479	\$5,146,170	\$7,768,649
238120	\$0	\$150,371	\$249,385	\$0	\$399,756	\$3,919,680	\$4,319,436	\$686,504	\$5,005,940
238130	\$0	\$14,700	\$0	\$0	\$14,700	\$0	\$14,700	\$50,871	\$65,571
238140	\$0	\$87,474	\$0	\$0	\$87,474	\$48,483	\$135,957	\$102,672	\$238,629
238150	\$0	\$84,972	\$0	\$0	\$84,972	\$0	\$84,972	\$13,146	\$98,118

Table 4-6: Distribution of Contract Dollars by Race and Gender (total dollars)

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
238160	\$0	\$0	\$0	\$0	\$0	\$200,095	\$200,095	\$961,384	\$1,161,479
238190	\$3,912,765	\$0	\$0	\$0	\$3,912,765	\$0	\$3,912,765	\$5,272,593	\$9,185,358
238210	\$0	\$5,332,803	\$1,272,223	\$0	\$6,605,026	\$4,168,733	\$10,773,759	\$53,369,457	\$64,143,216
238220	\$139,328	\$5,614,371	\$6,729	\$0	\$5,760,428	\$628,257	\$6,388,685	\$70,266,243	\$76,654,928
238290	\$0	\$0	\$0	\$0	\$0	\$378,751	\$378,751	\$2,067,666	\$2,446,417
238310	\$0	\$0	\$737,499	\$0	\$737,499	\$0	\$737,499	\$6,026,377	\$6,763,876
238320	\$0	\$23,580	\$0	\$0	\$23,580	\$715,000	\$738,580	\$418,274	\$1,156,854
238330	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,953,638	\$1,953,638
238340	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$389,710	\$389,710
238350	\$0	\$1,735,353	\$0	\$0	\$1,735,353	\$15,345	\$1,750,698	\$3,254,074	\$5,004,772
238390	\$0	\$0	\$50,780	\$0	\$50,780	\$5,383,226	\$5,434,006	\$6,869,795	\$12,303,801
238910	\$396,537	\$472,194	\$0	\$0	\$868,731	\$326,262	\$1,194,993	\$21,714,368	\$22,909,361
238990	\$3,860	\$392,015	\$1,199,417	\$0	\$1,595,291	\$288,454	\$1,883,745	\$84,749,146	\$86,632,891
321911	\$0	\$0	\$0	\$0	\$0	\$5,092	\$5,092	\$0	\$5,092
323111	\$0	\$0	\$0	\$0	\$0	\$15,742	\$15,742	\$447,721	\$463,463
324121	\$0	\$0	\$0	\$0	\$0	\$9,480	\$9,480	\$0	\$9,480
325998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$172,701	\$172,701
327320	\$0	\$299,912	\$0	\$0	\$299,912	\$0	\$299,912	\$126,706	\$426,618
327332	\$0	\$0	\$0	\$0	\$0	\$736,967	\$736,967	\$272,385	\$1,009,352
327390	\$0	\$29,743	\$0	\$0	\$29,743	\$0	\$29,743	\$0	\$29,743
327999	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,052	\$35,052
332312	\$0	\$0	\$715,662	\$0	\$715,662	\$0	\$715,662	\$114,429	\$830,090
332313	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,100	\$2,100

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
332813	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,450	\$21,450
333316	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,282,896	\$2,282,896
334290	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,029,775	\$1,029,775
334516	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,321	\$56,321
336411	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000	\$125,000
339113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$182,988	\$182,988
423110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,158,861	\$8,158,861
423120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$683,609	\$683,609
423130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,434,031	\$1,434,031
423310	\$0	\$0	\$0	\$0	\$0	\$29,905	\$29,905	\$0	\$29,905
423320	\$32,865	\$0	\$0	\$0	\$32,865	\$0	\$32,865	\$9,956,367	\$9,989,232
423430	\$173,364	\$0	\$0	\$0	\$173,364	\$0	\$173,364	\$447,881	\$621,245
423440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$205,330	\$205,330
423450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$795,556	\$795,556
423490	\$0	\$0	\$0	\$0	\$0	\$63,463	\$63,463	\$160,149	\$223,613
423510	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,729,854	\$1,729,854
423610	\$0	\$819,379	\$1,122,371	\$0	\$1,941,750	\$0	\$1,941,750	\$1,145,268	\$3,087,018
423620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$174,881	\$174,881
423690	\$0	\$0	\$0	\$0	\$0	\$50,472	\$50,472	\$5,636,074	\$5,686,546
423710	\$625,146	\$0	\$0	\$0	\$625,146	\$32,924	\$658,070	\$0	\$658,070
423720	\$0	\$0	\$0	\$0	\$0	\$277,682	\$277,682	\$1,141,077	\$1,418,759
423730	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$168,390	\$168,390
423810	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$655,879	\$655,879

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
423830	\$0	\$30,900	\$0	\$0	\$30,900	\$78,296	\$109,196	\$7,996,871	\$8,106,067
423840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$349,498	\$349,498
423850	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$588,112	\$588,112
423990	\$0	\$0	\$0	\$0	\$0	\$61,064	\$61,064	\$1,989,916	\$2,050,980
424130	\$0	\$0	\$0	\$0	\$0	\$98,992	\$98,992	\$0	\$98,992
424320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$789,515	\$789,515
424340	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$229,248	\$229,248
424690	\$0	\$0	\$0	\$0	\$0	\$216,920	\$216,920	\$1,744,370	\$1,961,289
424710	\$0	\$0	\$0	\$0	\$0	\$289,707	\$289,707	\$1,548,529	\$1,838,235
424720	\$55,988	\$0	\$860,193	\$0	\$916,181	\$76,407	\$992,588	\$0	\$992,588
424910	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,602	\$150,602
424990	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160,540	\$160,540
441110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,729,893	\$4,729,893
441210	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$277,311	\$277,311
441228	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$495,837	\$495,837
441310	\$0	\$4,257,229	\$0	\$0	\$4,257,229	\$0	\$4,257,229	\$0	\$4,257,229
442110	\$0	\$0	\$0	\$0	\$0	\$92,967	\$92,967	\$1,893,689	\$1,986,655
442210	\$0	\$0	\$0	\$0	\$0	\$344,183	\$344,183	\$0	\$344,183
443142	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,644,379	\$1,644,379
444190	\$51,925	\$48,538	\$0	\$442,208	\$542,671	\$132,400	\$675,071	\$15,950,570	\$16,625,642
451110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$86,676	\$86,676
453210	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,174,500	\$2,174,500
454110	\$185,587	\$0	\$0	\$0	\$185,587	\$0	\$185,587	\$103,847	\$289,433

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
481219	\$0	\$0	\$0	\$0	\$0	\$2,734	\$2,734	\$0	\$2,734
484220	\$2,431,883	\$1,833,212	\$11,338	\$0	\$4,276,433	\$0	\$4,276,433	\$2,802,410	\$7,078,843
493110	\$0	\$0	\$0	\$0	\$0	\$551,169	\$551,169	\$260,000	\$811,169
512110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,312	\$65,312
515120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,411,040	\$1,411,040
517311	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,554	\$100,554
517312	\$0	\$0	\$481,121	\$0	\$481,121	\$0	\$481,121	\$9,525,663	\$10,006,784
518210	\$0	\$0	\$57,399	\$0	\$57,399	\$590,704	\$648,103	\$447,250	\$1,095,353
519110	\$0	\$0	\$0	\$0	\$0	\$57,250	\$57,250	\$0	\$57,250
519130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$147,233	\$147,233
519190	\$0	\$1,546	\$0	\$0	\$1,546	\$0	\$1,546	\$0	\$1,546
522110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,471,172	\$3,471,172
523910	\$0	\$0	\$0	\$0	\$0	\$642,128	\$642,128	\$0	\$642,128
523920	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$54,135	\$54,135
523930	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$144,626	\$144,626
524114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,760,000	\$39,760,000
524210	\$0	\$0	\$0	\$0	\$0	\$96,981	\$96,981	\$0	\$96,981
531120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$387,363	\$387,363
531130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$985,401	\$985,401
531190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,229,104	\$3,229,104
531312	\$124,992	\$0	\$0	\$0	\$124,992	\$0	\$124,992	\$0	\$124,992
531390	\$0	\$12,365	\$0	\$0	\$12,365	\$0	\$12,365	\$0	\$12,365
532111	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$869,082	\$869,082

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
532490	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$441,712	\$441,712
541110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,662,245	\$1,662,245
541211	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,331,077	\$6,331,077
541219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$205,383	\$205,383
541310	\$140,288	\$1,473,068	\$345,550	\$6,195	\$1,965,101	\$2,362,369	\$4,327,470	\$1,583,316	\$5,910,786
541320	\$0	\$83,117	\$11,296	\$0	\$94,413	\$231,832	\$326,245	\$669,033	\$995,278
541330	\$995,076	\$3,844,884	\$2,137,504	\$0	\$6,977,465	\$4,635,634	\$11,613,099	\$30,584,321	\$42,197,419
541340	\$7,910	\$191,240	\$11,025	\$0	\$210,175	\$0	\$210,175	\$0	\$210,175
541350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$861,280	\$861,280
541370	\$175,268	\$1,255,742	\$2,655	\$9,880	\$1,443,544	\$1,438,267	\$2,881,811	\$696,485	\$3,578,296
541380	\$222,623	\$0	\$72,785	\$0	\$295,408	\$429,378	\$724,786	\$3,192,434	\$3,917,220
541410	\$0	\$0	\$0	\$0	\$0	\$19,950	\$19,950	\$0	\$19,950
541420	\$0	\$39,658	\$328,129	\$0	\$367,787	\$18,066	\$385,853	\$0	\$385,854
541430	\$0	\$0	\$0	\$0	\$0	\$68,526	\$68,526	\$0	\$68,526
541511	\$0	\$802,858	\$4,121,898	\$0	\$4,924,756	\$6,581,704	\$11,506,460	\$39,197,451	\$50,703,911
541512	\$0	\$6,050	\$0	\$0	\$6,050	\$120,796	\$126,846	\$7,211,023	\$7,337,869
541513	\$0	\$0	\$697,065	\$0	\$697,065	\$0	\$697,065	\$7,155,348	\$7,852,413
541611	\$57,801	\$0	\$33,032	\$5,000	\$95,833	\$0	\$95 <i>,</i> 833	\$59,156	\$154,989
541613	\$0	\$55,000	\$0	\$0	\$55,000	\$0	\$55,000	\$140,094	\$195,094
541614	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,525,155	\$3,525,155
541620	\$20,257	\$0	\$54,900	\$9,329	\$84,486	\$1,664,362	\$1,748,848	\$615,511	\$2,364,359
541690	\$875	\$222,770	\$32,965	\$0	\$256,610	\$42,649	\$299,259	\$564,362	\$863,621
541715	\$0	\$1,919,349	\$0	\$0	\$1,919,349	\$0	\$1,919,349	\$114,945	\$2,034,294

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
541720	\$0	\$0	\$0	\$0	\$0	\$599,749	\$599,749	\$0	\$599,749
541820	\$18,599	\$18,707	\$0	\$0	\$37,306	\$90,000	\$127,306	\$800,000	\$927,306
541870	\$0	\$705,735	\$0	\$0	\$705,735	\$427,985	\$1,133,720	\$0	\$1,133,720
541910	\$208,622	\$20,001	\$0	\$0	\$228,623	\$0	\$228,623	\$50,000	\$278,623
541922	\$32,006	\$17,363	\$10,790	\$0	\$60,159	\$8,250	\$68,409	\$626,140	\$694,548
541930	\$0	\$1,196,696	\$0	\$0	\$1,196,696	\$215,144	\$1,411,840	\$0	\$1,411,840
541990	\$27,020	\$0	\$698,245	\$0	\$725,266	\$347,411	\$1,072,677	\$186,716	\$1,259,392
561110	\$53,105	\$0	\$0	\$0	\$53,105	\$0	\$53,105	\$0	\$53,105
561312	\$0	\$3,463,635	\$0	\$0	\$3,463,635	\$0	\$3,463,635	\$0	\$3,463,635
561320	\$1,836,267	\$118,736	\$1,588,443	\$220,612	\$3,764,059	\$7,367,498	\$11,131,557	\$7,618,911	\$18,750,468
561440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$528,078	\$528,078
561492	\$0	\$0	\$0	\$0	\$0	\$71,340	\$71,340	\$0	\$71,340
561612	\$206,130	\$0	\$0	\$0	\$206,130	\$785 <i>,</i> 459	\$991,589	\$1,151,619	\$2,143,207
561613	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$104,265	\$104,265
561621	\$284,338	\$0	\$0	\$0	\$284,338	\$0	\$284,338	\$52,610	\$336,948
561720	\$6,220	\$19,164	\$0	\$0	\$25,384	\$0	\$25,384	\$2,057,450	\$2,082,834
561730	\$139,038	\$0	\$0	\$0	\$139,038	\$323,304	\$462,342	\$3,877,884	\$4,340,227
561790	\$0	\$0	\$0	\$0	\$0	\$542,174	\$542,174	\$0	\$542,174
561920	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59,973	\$59,973
561990	\$11,036	\$1,020,597	\$65,246	\$0	\$1,096,878	\$3,943,626	\$5,040,504	\$831,469	\$5,871,974
562111	\$0	\$7,328,152	\$0	\$0	\$7,328,152	\$176,854	\$7,505,006	\$9,518,491	\$17,023,497
562119	\$0	\$0	\$0	\$0	\$0	\$122,282	\$122,282	\$0	\$122,282
562910	\$560,350	\$0	\$0	\$0	\$560,350	\$393,661	\$954,011	\$1,282,350	\$2,236,362

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
562920	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,278,950	\$5,278,950
562991	\$0	\$0	\$0	\$0	\$0	\$136,786	\$136,786	\$282,176	\$418,962
562998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$797,720	\$797,720
611430	\$0	\$0	\$0	\$0	\$0	\$58,000	\$58,000	\$0	\$58,000
611519	\$0	\$0	\$0	\$0	\$0	\$84,164	\$84,164	\$0	\$84,164
611710	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$821,418	\$821,418
621111	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$448,642	\$448,642
621112	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59,700	\$59,700
621399	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000
621498	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$337,480	\$337,480
621512	\$0	\$0	\$0	\$0	\$0	\$9 <i>,</i> 950	\$9,950	\$0	\$9,950
624110	\$0	\$0	\$0	\$0	\$0	\$77,421	\$77,421	\$0	\$77,421
624190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,099,762	\$2,099,762
624230	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$271,200	\$271,200
624410	\$0	\$0	\$0	\$0	\$0	\$400,848	\$400,848	\$320,000	\$720,848
711219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$677,208	\$677,208
711320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$299,577	\$299,577
713940	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$232,698	\$232,698
811111	\$0	\$177,817	\$0	\$0	\$177,817	\$0	\$177,817	\$5,090,361	\$5,268,178
811192	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$477,132	\$477,132
811198	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,308,278	\$6,308,278
811211	\$0	\$0	\$0	\$0	\$0	\$113,889	\$113,889	\$0	\$113,889
811212	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$78,444	\$78,444

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/WBE	Non-MBE/ WBE	Total
811310	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,255,722	\$4,255,722
811420	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$109,265	\$109,265
812320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$673,096	\$673,096
812331	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,822,495	\$1,822,495
812910	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$347,075	\$347,075
812930	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,288,281	\$34,288,281
813920	\$75,000	\$0	\$0	\$0	\$75,000	\$0	\$75,000	\$0	\$75,000
922110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$154,682	\$154,682
922130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$55,000	\$55,000
923120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114,000	\$114,000
Total	\$15,368,481	\$51,392,913	\$17,411,303	\$754,775	\$84,927,473	\$60,325,355	\$145,252,828	\$747,078,317	\$892,331,145

Source: CHA analysis of City of Austin data

Table 4-7: Distribution of Contract Dollars by Race and Gender

(share of total dollars)

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
115112	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
212312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
212321	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221121	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221122	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221310	13.6%	5.5%	0.0%	0.0%	19.1%	30.7%	49.8%	50.2%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
236115	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
236116	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236210	0.0%	25.4%	0.0%	0.0%	25.4%	0.0%	25.4%	74.6%	100.0%
236220	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.2%	99.8%	100.0%
237110	0.4%	6.5%	1.3%	0.0%	8.2%	2.0%	10.1%	89.9%	100.0%
237120	25.3%	2.2%	2.2%	0.0%	29.6%	2.5%	32.2%	67.8%	100.0%
237130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237210	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
237310	0.2%	3.1%	0.0%	0.1%	3.4%	3.3%	6.8%	93.2%	100.0%
237990	25.7%	0.9%	0.9%	0.0%	27.5%	8.1%	35.6%	64.4%	100.0%
238110	1.2%	5.2%	0.0%	0.0%	6.4%	27.3%	33.8%	66.2%	100.0%
238120	0.0%	3.0%	5.0%	0.0%	8.0%	78.3%	86.3%	13.7%	100.0%
238130	0.0%	22.4%	0.0%	0.0%	22.4%	0.0%	22.4%	77.6%	100.0%
238140	0.0%	36.7%	0.0%	0.0%	36.7%	20.3%	57.0%	43.0%	100.0%
238150	0.0%	86.6%	0.0%	0.0%	86.6%	0.0%	86.6%	13.4%	100.0%
238160	0.0%	0.0%	0.0%	0.0%	0.0%	17.2%	17.2%	82.8%	100.0%
238190	42.6%	0.0%	0.0%	0.0%	42.6%	0.0%	42.6%	57.4%	100.0%
238210	0.0%	8.3%	2.0%	0.0%	10.3%	6.5%	16.8%	83.2%	100.0%
238220	0.2%	7.3%	0.0%	0.0%	7.5%	0.8%	8.3%	91.7%	100.0%
238290	0.0%	0.0%	0.0%	0.0%	0.0%	15.5%	15.5%	84.5%	100.0%
238310	0.0%	0.0%	10.9%	0.0%	10.9%	0.0%	10.9%	89.1%	100.0%
238320	0.0%	2.0%	0.0%	0.0%	2.0%	61.8%	63.8%	36.2%	100.0%
238330	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238340	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238350	0.0%	34.7%	0.0%	0.0%	34.7%	0.3%	35.0%	65.0%	100.0%
238390	0.0%	0.0%	0.4%	0.0%	0.4%	43.8%	44.2%	55.8%	100.0%
238910	1.7%	2.1%	0.0%	0.0%	3.8%	1.4%	5.2%	94.8%	100.0%
238990	0.0%	0.5%	1.4%	0.0%	1.8%	0.3%	2.2%	97.8%	100.0%
321911	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
323111	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	3.4%	96.6%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
324121	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
325998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327320	0.0%	70.3%	0.0%	0.0%	70.3%	0.0%	70.3%	29.7%	100.0%
327332	0.0%	0.0%	0.0%	0.0%	0.0%	73.0%	73.0%	27.0%	100.0%
327390	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
327999	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332312	0.0%	0.0%	86.2%	0.0%	86.2%	0.0%	86.2%	13.8%	100.0%
332313	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332813	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
333316	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334290	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334516	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
336411	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
339113	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423310	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
423320	0.3%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	99.7%	100.0%
423430	27.9%	0.0%	0.0%	0.0%	27.9%	0.0%	27.9%	72.1%	100.0%
423440	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423450	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423490	0.0%	0.0%	0.0%	0.0%	0.0%	28.4%	28.4%	71.6%	100.0%
423510	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423610	0.0%	26.5%	36.4%	0.0%	62.9%	0.0%	62.9%	37.1%	100.0%
423620	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423690	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	99.1%	100.0%
423710	95.0%	0.0%	0.0%	0.0%	95.0%	5.0%	100.0%	0.0%	100.0%
423720	0.0%	0.0%	0.0%	0.0%	0.0%	19.6%	19.6%	80.4%	100.0%
423730	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
423810	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.4%	0.0%	0.0%	0.4%	1.0%	1.3%	98.7%	100.0%
423840	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423850	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423990	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	97.0%	100.0%
424130	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
424320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424340	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424690	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	11.1%	88.9%	100.0%
424710	0.0%	0.0%	0.0%	0.0%	0.0%	15.8%	15.8%	84.2%	100.0%
424720	5.6%	0.0%	86.7%	0.0%	92.3%	7.7%	100.0%	0.0%	100.0%
424910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424990	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441228	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
441310	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
442110	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	4.7%	95.3%	100.0%
442210	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
443142	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
444190	0.3%	0.3%	0.0%	2.7%	3.3%	0.8%	4.1%	95.9%	100.0%
451110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
453210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
454110	64.1%	0.0%	0.0%	0.0%	64.1%	0.0%	64.1%	35.9%	100.0%
481219	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
484220	34.4%	25.9%	0.2%	0.0%	60.4%	0.0%	60.4%	39.6%	100.0%
493110	0.0%	0.0%	0.0%	0.0%	0.0%	67.9%	67.9%	32.1%	100.0%
512110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
515120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
517311	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
517312	0.0%	0.0%	4.8%	0.0%	4.8%	0.0%	4.8%	95.2%	100.0%
518210	0.0%	0.0%	5.2%	0.0%	5.2%	53.9%	59.2%	40.8%	100.0%
519110	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
519130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
519190	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
522110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
523910	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
523920	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
523930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
524114	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
524210	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
531120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
531130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
531190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
531312	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
531390	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
532111	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
532490	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541211	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541219	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541310	2.4%	24.9%	5.8%	0.1%	33.2%	40.0%	73.2%	26.8%	100.0%
541320	0.0%	8.4%	1.1%	0.0%	9.5%	23.3%	32.8%	67.2%	100.0%
541330	2.4%	9.1%	5.1%	0.0%	16.5%	11.0%	27.5%	72.5%	100.0%
541340	3.8%	91.0%	5.2%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
541350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541370	4.9%	35.1%	0.1%	0.3%	40.3%	40.2%	80.5%	19.5%	100.0%
541380	5.7%	0.0%	1.9%	0.0%	7.5%	11.0%	18.5%	81.5%	100.0%
541410	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541420	0.0%	10.3%	85.0%	0.0%	95.3%	4.7%	100.0%	0.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
541430	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541511	0.0%	1.6%	8.1%	0.0%	9.7%	13.0%	22.7%	77.3%	100.0%
541512	0.0%	0.1%	0.0%	0.0%	0.1%	1.6%	1.7%	98.3%	100.0%
541513	0.0%	0.0%	8.9%	0.0%	8.9%	0.0%	8.9%	91.1%	100.0%
541611	37.3%	0.0%	21.3%	3.2%	61.8%	0.0%	61.8%	38.2%	100.0%
541613	0.0%	28.2%	0.0%	0.0%	28.2%	0.0%	28.2%	71.8%	100.0%
541614	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541620	0.9%	0.0%	2.3%	0.4%	3.6%	70.4%	74.0%	26.0%	100.0%
541690	0.1%	25.8%	3.8%	0.0%	29.7%	4.9%	34.7%	65.3%	100.0%
541715	0.0%	94.3%	0.0%	0.0%	94.3%	0.0%	94.3%	5.7%	100.0%
541720	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541820	2.0%	2.0%	0.0%	0.0%	4.0%	9.7%	13.7%	86.3%	100.0%
541870	0.0%	62.2%	0.0%	0.0%	62.2%	37.8%	100.0%	0.0%	100.0%
541910	74.9%	7.2%	0.0%	0.0%	82.1%	0.0%	82.1%	17.9%	100.0%
541922	4.6%	2.5%	1.6%	0.0%	8.7%	1.2%	9.8%	90.2%	100.0%
541930	0.0%	84.8%	0.0%	0.0%	84.8%	15.2%	100.0%	0.0%	100.0%
541990	2.1%	0.0%	55.4%	0.0%	57.6%	27.6%	85.2%	14.8%	100.0%
561110	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
561312	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
561320	9.8%	0.6%	8.5%	1.2%	20.1%	39.3%	59.4%	40.6%	100.0%
561440	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561492	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561612	9.6%	0.0%	0.0%	0.0%	9.6%	36.6%	46.3%	53.7%	100.0%
561613	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561621	84.4%	0.0%	0.0%	0.0%	84.4%	0.0%	84.4%	15.6%	100.0%
561720	0.3%	0.9%	0.0%	0.0%	1.2%	0.0%	1.2%	98.8%	100.0%
561730	3.2%	0.0%	0.0%	0.0%	3.2%	7.4%	10.7%	89.3%	100.0%
561790	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561920	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561990	0.2%	17.4%	1.1%	0.0%	18.7%	67.2%	85.8%	14.2%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
562111	0.0%	43.0%	0.0%	0.0%	43.0%	1.0%	44.1%	55.9%	100.0%
562119	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
562910	25.1%	0.0%	0.0%	0.0%	25.1%	17.6%	42.7%	57.3%	100.0%
562920	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
562991	0.0%	0.0%	0.0%	0.0%	0.0%	32.6%	32.6%	67.4%	100.0%
562998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
611430	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
611519	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
611710	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621111	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621112	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621399	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621498	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621512	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
624110	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
624190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
624230	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
624410	0.0%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	44.4%	100.0%
711219	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
711320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
713940	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811111	0.0%	3.4%	0.0%	0.0%	3.4%	0.0%	3.4%	96.6%	100.0%
811192	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811198	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811211	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
811212	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811420	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
812320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
812331	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
812910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
812930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
813920	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
922110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
922130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
923120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
TOTAL	1.7%	5.8%	2.0%	0.1%	9.5%	6.8%	16.3%	83.7%	100.0%

Source: CHA	analysis (of City o	f Austin	data
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E. The Availability of MBEs and WBEs in the City's Geographic and Product Market

1. The Methodological Framework

Estimates of the availability of MBEs and WBEs in the City's geographic and product market are a critical component of the City's compliance with its constitutional obligations to ensure its Program is narrowly tailored. As discussed in Chapter II, the courts require that the availability estimates reflect the number of "ready, willing and able" firms that can perform on specific types of work involved in the recipient's prime contracts and associated subcontracts; general population is legally irrelevant. Availability estimates are also crucial for the City to determine its annual MBE and WBE targets and to set narrowly tailored contract goals.

To examine whether MBEs and WBEs are receiving full opportunities on City contracts, these narrowly tailored availability estimates were compared to the utilization percentage of dollars received by MBES and WBEs, discussed below in Section B4.

We applied the "custom census" approach, with refinements, to estimating availability, discussed in Chapter II. Using this framework, CHA utilized three databases to estimate availability:

- 1. The Final Contract Data File.
- 2. The Master M/W/DBE Directory compiled by CHA.
- 3. Dun & Bradstreet/Hoovers Database.

First, we eliminated any duplicate entries in the geographically constrained FCDF. Some firms received multiple contracts for work performed in the same NAICS codes. Without this elimination of duplicate listings, the availability database would be artificially large. This list of unique firms comprised the first component of the Study's availability determination.

To develop the Master Directory, we utilized the Texas Unified Certification Program Directory, the City of Austin Certified Directory, and the City Contract Data File to compile the Master Directory. We limited the firms we used in our analysis to those operating within the City's product market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company, for minority- and woman-owned firms and non-MBEs/WBEs. Hoovers maintains a comprehensive, extensive and regularly updated listing of all firms conducting business. The database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information. We purchased the information from Hoovers for the firms in the NAICS codes located in the City's market area in order to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identified a firm as being minority-owned.¹⁶⁸ However, the company does keep detailed information on ethnicity (*i.e.*, is the minority firm owner Black, Hispanic, Asian, or Native American). We obtained this additional information from Hoovers by special request.

The Hoovers database is the most comprehensive list of minority-owned and woman-owned businesses available. It is developed from the efforts of a national firm whose business is collecting business information. Hoovers builds its database from over 250 sources, including information from government sources and various associations, and its own efforts. Hoovers conducts an audit of the preliminary database prior to the public release of the data. That audit must result in a minimum of 94% accuracy. Once published, Hoovers has an established protocol to regularly refresh its data. This protocol involves updating any third-party lists that were used and contacting a selection of firms via Hoover's own call centers.

We merged these three databases to form an accurate estimate of firms available to work on the City contracts. For an extended explanation of how unweighted and weighted availability are calculated, please see Appendix D.

2. The Availability Data and Results

Tables 4-8 through 4-10 present data on:

^{168.} The variable is labeled: "Is Minority Owned" and values for the variable can be either "1" (for yes) or blank.

- 1. The unweighted availability percentages by race and gender and by NAICS codes for the City's product market;
- 2. The weights used to adjust the unweighted numbers;¹⁶⁹ and
- 3. The final estimates of the weighted averages of the individual six-digit level NAICS availability estimates in the City's market area.

We "weighted" the availability data for two reasons. First, the weighted availability represents the share of total possible contractors for each demographic group, weighted by the distribution of contract dollars across the NAICS codes in which the City spends its dollars. Weighting is necessary because the disparity ratio, discussed below, must be an "apples-to-apples" comparison. The numerator – the utilization rate – is measured in dollars *not* the number of firms. Therefore, the denominator – availability – must be measured in dollars, not the number of firms.

Second, weighting also reflects the importance of the availability of a demographic group in a particular NAICS code, that is, how important that NAICS code is to the City's contracting patterns. For example, in a hypothetical NAICS Code 123456, the total available firms are 100 and 60 of these firms are MBEs/ WBEs; hence, MBE/WBE availability would be 60%. However, if the City spends only one percent of its contract dollars in this NAICS code, then this high availability would be offset by the low level of spending in that NAICS code. In contrast, if the City spent 25% of its contract dollars in NAICS Code 123456, then the same availability would carry a greater weight.

To calculate the weighted availability for each NAICS code, we first determined the unweighted availability for each demographic group in each NAICS code (presented in Table 4-8). In the previous example, the unweighted availability for MBEs/WBEs in NAICS Code 123456 is 60%. We then multiplied the unweighted availability by the share of the City spending in that NAICS code presented in Table 4-9. This share is the *weight*. Using the previous example, where the City spending in NAICS Code 123456 was one percent, the component of MBE/WBE weighted availability for NAICS Code 123456 would be 0.006: 60% multiplied by one percent.

We performed this calculation for each NAICS code and then summed all of the individual components for each demographic group to determine the weighted availability for that group. The results of this calculation are presented in Table 4-10.

^{169.} These weights are equivalent to the share of contract dollars presented in the previous section.

NAICS	Black	Hispanic	Asian	Native	MBE	White	MBE/	Non-MBE/	Total
				American		Woman	WBE	WBE	
115112	7.1%	0.0%	0.0%	0.0%	7.1%	0.0%	7.1%	92.9%	100.0%
212312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
212321	0.0%	5.0%	0.0%	0.0%	5.0%	0.0%	5.0%	95.0%	100.0%
221121	0.0%	0.0%	16.7%	0.0%	16.7%	0.0%	16.7%	83.3%	100.0%
221122	2.4%	0.0%	0.0%	0.0%	2.4%	7.1%	9.5%	90.5%	100.0%
221210	0.0%	0.0%	7.4%	0.0%	7.4%	3.7%	11.1%	88.9%	100.0%
221310	0.7%	1.8%	0.7%	0.0%	3.3%	2.9%	6.3%	93.8%	100.0%
236115	0.2%	0.8%	0.1%	0.0%	1.1%	1.0%	2.1%	97.9%	100.0%
236116	0.4%	1.1%	0.4%	0.0%	2.0%	1.6%	3.6%	96.4%	100.0%
236210	8.5%	8.5%	1.4%	0.0%	18.3%	15.5%	33.8%	66.2%	100.0%
236220	3.3%	7.0%	1.8%	0.7%	12.8%	10.2%	23.0%	77.0%	100.0%
237110	1.1%	9.2%	1.4%	0.0%	11.6%	7.0%	18.7%	81.3%	100.0%
237120	4.8%	4.8%	4.8%	0.0%	14.3%	11.9%	26.2%	73.8%	100.0%
237130	0.0%	18.8%	0.0%	0.0%	18.8%	12.5%	31.3%	68.8%	100.0%
237210	0.1%	0.5%	0.0%	0.0%	0.6%	0.6%	1.2%	98.8%	100.0%
237310	2.7%	16.4%	1.1%	1.4%	21.6%	12.0%	33.6%	66.4%	100.0%
237990	2.9%	14.3%	3.8%	0.0%	21.0%	5.7%	26.7%	73.3%	100.0%
238110	0.8%	4.7%	0.2%	0.2%	5.9%	2.9%	8.8%	91.2%	100.0%
238120	0.0%	21.0%	8.1%	1.6%	30.6%	25.8%	56.5%	43.5%	100.0%
238130	0.2%	1.2%	0.2%	0.0%	1.7%	2.1%	3.8%	96.2%	100.0%
238140	1.7%	5.0%	0.4%	0.0%	7.1%	5.0%	12.1%	87.9%	100.0%
238150	0.0%	5.6%	0.0%	0.0%	5.6%	5.6%	11.1%	88.9%	100.0%
238160	0.1%	1.5%	0.1%	0.1%	1.9%	2.0%	3.9%	96.1%	100.0%
238190	4.9%	12.2%	2.4%	2.4%	22.0%	2.4%	24.4%	75.6%	100.0%
238210	0.3%	3.3%	0.7%	0.2%	4.5%	5.4%	9.9%	90.1%	100.0%
238220	0.3%	2.1%	0.4%	0.0%	2.9%	2.8%	5.7%	94.3%	100.0%
238290	2.3%	2.3%	0.0%	2.3%	6.8%	15.9%	22.7%	77.3%	100.0%
238310	0.3%	2.9%	0.9%	0.3%	4.4%	3.8%	8.2%	91.8%	100.0%
238320	0.1%	2.2%	0.1%	0.3%	2.8%	1.6%	4.4%	95.6%	100.0%

Table 4-8: Unweighted MBE and WBE Availability for the City Contracts

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
238330	1.0%	5.0%	1.0%	0.0%	7.0%	3.0%	10.0%	90.0%	100.0%
238340	1.1%	0.5%	0.5%	0.5%	2.7%	3.2%	5.9%	94.1%	100.0%
238350	1.2%	2.9%	0.6%	0.0%	4.6%	3.5%	8.1%	91.9%	100.0%
238390	0.5%	2.3%	1.4%	0.5%	4.7%	6.5%	11.2%	88.8%	100.0%
238910	2.6%	8.2%	0.9%	0.0%	11.6%	8.2%	19.8%	80.2%	100.0%
238990	0.4%	2.4%	0.3%	0.1%	3.2%	2.9%	6.1%	93.9%	100.0%
321911	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	16.7%	83.3%	100.0%
323111	0.2%	0.2%	0.9%	0.0%	1.3%	9.8%	11.1%	88.9%	100.0%
324121	0.0%	0.0%	0.0%	14.3%	14.3%	28.6%	42.9%	57.1%	100.0%
325998	0.0%	3.1%	3.1%	0.0%	6.3%	12.5%	18.8%	81.3%	100.0%
327320	1.9%	7.4%	0.0%	0.0%	9.3%	0.0%	9.3%	90.7%	100.0%
327332	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%	96.5%	100.0%
327390	0.0%	2.5%	0.4%	0.2%	3.0%	5.9%	8.9%	91.1%	100.0%
327999	0.0%	0.0%	4.7%	0.0%	4.7%	4.7%	9.3%	90.7%	100.0%
332312	0.5%	3.9%	1.2%	0.2%	5.7%	6.9%	12.6%	87.4%	100.0%
332313	1.3%	1.1%	0.0%	0.4%	2.8%	4.9%	7.7%	92.3%	100.0%
332813	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	7.7%	92.3%	100.0%
333316	0.0%	1.6%	0.0%	0.0%	1.6%	1.6%	3.2%	96.8%	100.0%
334290	0.9%	2.1%	0.0%	0.0%	3.0%	7.3%	10.3%	89.7%	100.0%
334516	0.7%	3.3%	4.8%	0.0%	8.8%	5.9%	14.7%	85.3%	100.0%
336411	1.9%	1.5%	0.0%	0.4%	3.8%	3.2%	6.9%	93.1%	100.0%
339113	2.5%	4.6%	2.0%	0.0%	9.1%	8.4%	17.5%	82.5%	100.0%
423110	0.1%	0.6%	0.1%	0.0%	0.9%	1.7%	2.6%	97.4%	100.0%
423120	0.3%	0.6%	0.2%	0.0%	1.1%	4.1%	5.2%	94.8%	100.0%
423130	0.0%	1.0%	0.0%	0.0%	1.0%	4.4%	5.4%	94.6%	100.0%
423310	0.0%	1.3%	0.0%	0.4%	1.7%	2.6%	4.3%	95.7%	100.0%
423320	1.2%	1.9%	0.6%	0.6%	4.3%	4.3%	8.7%	91.3%	100.0%
423430	2.0%	1.5%	3.0%	0.5%	7.0%	7.9%	14.9%	85.1%	100.0%
423440	0.3%	0.3%	0.1%	0.0%	0.7%	2.0%	2.7%	97.3%	100.0%
423450	3.6%	3.1%	2.2%	0.3%	9.3%	8.4%	17.7%	82.3%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
423490	1.7%	1.1%	0.9%	0.3%	4.0%	7.0%	11.0%	89.0%	100.0%
423510	0.2%	1.6%	0.5%	0.3%	2.6%	3.9%	6.5%	93.5%	100.0%
423610	0.7%	2.2%	0.7%	0.1%	3.8%	6.5%	10.3%	89.7%	100.0%
423620	0.3%	0.8%	0.5%	0.0%	1.6%	3.3%	4.9%	95.1%	100.0%
423690	0.3%	2.0%	1.7%	0.2%	4.1%	7.6%	11.7%	88.3%	100.0%
423710	4.7%	2.3%	0.0%	0.0%	7.0%	11.6%	18.6%	81.4%	100.0%
423720	0.0%	2.3%	1.2%	1.2%	4.7%	12.8%	17.4%	82.6%	100.0%
423730	0.0%	1.4%	0.0%	1.4%	2.9%	8.6%	11.4%	88.6%	100.0%
423810	0.7%	2.3%	0.9%	0.1%	4.0%	4.6%	8.6%	91.4%	100.0%
423830	0.4%	1.1%	0.4%	0.0%	1.9%	4.8%	6.7%	93.3%	100.0%
423840	0.9%	1.7%	0.4%	0.4%	3.3%	5.4%	8.7%	91.3%	100.0%
423850	0.9%	0.9%	0.5%	0.1%	2.4%	9.2%	11.6%	88.4%	100.0%
423990	0.6%	0.5%	0.2%	0.1%	1.4%	4.6%	6.0%	94.0%	100.0%
424130	0.6%	1.9%	1.5%	0.0%	4.0%	7.3%	11.3%	88.7%	100.0%
424320	2.2%	0.6%	0.7%	0.4%	3.9%	7.6%	11.5%	88.5%	100.0%
424340	0.1%	0.3%	0.9%	0.0%	1.3%	3.1%	4.4%	95.6%	100.0%
424690	0.0%	3.0%	1.0%	1.0%	5.1%	9.1%	14.1%	85.9%	100.0%
424710	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	22.2%	77.8%	100.0%
424720	1.1%	1.1%	2.8%	0.0%	5.1%	4.0%	9.0%	91.0%	100.0%
424910	0.1%	0.3%	0.2%	0.0%	0.6%	3.6%	4.3%	95.7%	100.0%
424990	0.2%	0.3%	0.2%	0.0%	0.7%	2.4%	3.1%	96.9%	100.0%
441110	0.3%	0.1%	0.0%	0.0%	0.4%	0.7%	1.1%	98.9%	100.0%
441210	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.9%	97.1%	100.0%
441228	0.2%	0.0%	0.0%	0.0%	0.2%	1.6%	1.8%	98.2%	100.0%
441310	0.0%	1.3%	0.0%	0.0%	1.3%	2.2%	3.5%	96.5%	100.0%
442110	0.0%	0.4%	0.0%	0.0%	0.4%	5.3%	5.6%	94.4%	100.0%
442210	0.2%	1.3%	0.0%	0.0%	1.5%	2.8%	4.3%	95.7%	100.0%
443142	0.2%	0.6%	1.0%	0.0%	1.7%	3.3%	5.1%	94.9%	100.0%
444190	0.6%	0.9%	0.3%	0.6%	2.4%	3.8%	6.2%	93.8%	100.0%
451110	0.5%	0.2%	0.3%	0.2%	1.2%	2.7%	3.9%	96.1%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
453210	1.6%	1.6%	0.0%	0.0%	3.2%	14.3%	17.5%	82.5%	100.0%
454110	1.2%	0.5%	0.5%	0.0%	2.2%	10.8%	13.0%	87.0%	100.0%
481219	5.3%	0.0%	0.0%	0.0%	5.3%	15.8%	21.1%	78.9%	100.0%
484220	26.4%	30.7%	2.1%	0.0%	59.3%	5.7%	65.0%	35.0%	100.0%
493110	0.0%	0.0%	0.2%	0.0%	0.2%	1.7%	1.9%	98.1%	100.0%
512110	0.5%	2.1%	0.3%	0.0%	2.9%	5.3%	8.3%	91.7%	100.0%
515120	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	5.9%	94.1%	100.0%
517311	1.7%	2.3%	0.0%	0.6%	4.6%	5.2%	9.8%	90.2%	100.0%
517312	0.0%	0.0%	2.3%	0.0%	2.3%	1.6%	3.9%	96.1%	100.0%
518210	1.4%	1.0%	1.4%	0.1%	3.9%	7.9%	11.9%	88.1%	100.0%
519110	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	30.0%	70.0%	100.0%
519130	2.7%	1.8%	0.4%	0.0%	4.9%	7.1%	12.1%	87.9%	100.0%
519190	2.7%	1.3%	0.9%	0.0%	4.9%	3.1%	8.0%	92.0%	100.0%
522110	0.0%	0.4%	0.2%	0.0%	0.5%	0.0%	0.5%	99.5%	100.0%
523910	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.5%	99.5%	100.0%
523920	2.0%	1.5%	1.0%	0.0%	4.4%	3.0%	7.4%	92.6%	100.0%
523930	0.2%	0.2%	0.0%	0.0%	0.3%	1.3%	1.6%	98.4%	100.0%
524114	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	8.2%	91.8%	100.0%
524210	0.2%	1.1%	0.1%	0.0%	1.4%	5.1%	6.6%	93.4%	100.0%
531120	0.3%	0.0%	0.0%	0.0%	0.3%	2.3%	2.6%	97.4%	100.0%
531130	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	3.2%	96.8%	100.0%
531190	0.0%	0.7%	0.0%	0.0%	0.7%	7.0%	7.7%	92.3%	100.0%
531312	0.1%	0.0%	0.0%	0.0%	0.1%	0.5%	0.6%	99.4%	100.0%
531390	3.1%	7.7%	0.0%	0.0%	10.8%	9.2%	20.0%	80.0%	100.0%
532111	0.0%	0.8%	0.0%	0.0%	0.8%	0.0%	0.8%	99.2%	100.0%
532490	0.0%	0.2%	0.0%	0.0%	0.2%	1.0%	1.2%	98.8%	100.0%
541110	0.5%	0.3%	0.2%	0.0%	1.0%	4.1%	5.1%	94.9%	100.0%
541211	0.9%	0.6%	0.2%	0.0%	1.6%	5.5%	7.2%	92.8%	100.0%
541219	2.0%	0.7%	0.2%	0.0%	3.0%	11.1%	14.1%	85.9%	100.0%
541310	1.8%	4.1%	1.5%	0.3%	7.8%	8.0%	15.7%	84.3%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
541320	0.0%	1.8%	0.6%	0.0%	2.4%	4.9%	7.3%	92.7%	100.0%
541330	2.0%	4.1%	2.5%	0.4%	9.0%	5.1%	14.1%	85.9%	100.0%
541340	2.8%	4.5%	1.4%	0.7%	9.4%	7.3%	16.7%	83.3%	100.0%
541350	1.6%	2.4%	0.8%	0.0%	4.8%	3.2%	8.0%	92.0%	100.0%
541370	3.1%	10.5%	1.7%	1.7%	17.0%	22.7%	39.7%	60.3%	100.0%
541380	1.1%	1.2%	2.3%	0.0%	4.5%	4.1%	8.6%	91.4%	100.0%
541410	0.9%	0.7%	0.4%	0.0%	2.0%	19.2%	21.2%	78.8%	100.0%
541420	1.7%	15.0%	15.0%	1.7%	33.3%	26.7%	60.0%	40.0%	100.0%
541430	1.1%	1.1%	0.5%	0.1%	2.8%	14.1%	16.8%	83.2%	100.0%
541511	1.2%	1.0%	3.2%	0.1%	5.5%	4.1%	9.6%	90.4%	100.0%
541512	2.2%	1.9%	3.0%	0.3%	7.4%	5.1%	12.5%	87.5%	100.0%
541513	9.1%	4.5%	22.7%	13.6%	50.0%	13.6%	63.6%	36.4%	100.0%
541611	2.4%	1.0%	0.5%	0.1%	4.0%	5.0%	9.1%	90.9%	100.0%
541613	0.8%	0.6%	0.3%	0.1%	1.8%	4.7%	6.5%	93.5%	100.0%
541614	5.2%	2.5%	1.1%	0.2%	9.1%	6.8%	15.8%	84.2%	100.0%
541620	1.8%	2.5%	1.4%	0.4%	6.1%	10.6%	16.8%	83.2%	100.0%
541690	2.4%	2.0%	1.7%	0.2%	6.2%	6.7%	12.9%	87.1%	100.0%
541715	1.1%	1.0%	1.5%	0.2%	3.9%	5.4%	9.2%	90.8%	100.0%
541720	1.0%	0.7%	0.4%	0.2%	2.2%	3.4%	5.7%	94.3%	100.0%
541820	3.7%	3.4%	0.7%	0.0%	7.8%	15.6%	23.5%	76.5%	100.0%
541870	0.0%	40.0%	0.0%	0.0%	40.0%	20.0%	60.0%	40.0%	100.0%
541910	2.2%	4.8%	0.9%	0.0%	7.8%	12.1%	19.9%	80.1%	100.0%
541922	2.2%	1.3%	0.9%	0.0%	4.4%	7.9%	12.3%	87.7%	100.0%
541930	0.0%	14.0%	2.2%	0.0%	16.1%	24.7%	40.9%	59.1%	100.0%
541990	0.4%	0.3%	0.1%	0.0%	0.9%	5.1%	6.0%	94.0%	100.0%
561110	0.1%	0.2%	0.1%	0.0%	0.5%	0.9%	1.4%	98.6%	100.0%
561312	1.7%	2.4%	1.1%	0.1%	5.3%	11.8%	17.1%	82.9%	100.0%
561320	2.3%	5.0%	7.4%	0.8%	15.5%	12.4%	27.9%	72.1%	100.0%
561440	0.8%	0.9%	0.8%	0.0%	2.5%	4.6%	7.1%	92.9%	100.0%
561492	0.0%	0.0%	0.0%	1.9%	1.9%	41.5%	43.4%	56.6%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
561612	4.4%	2.2%	0.0%	0.0%	6.6%	4.9%	11.5%	88.5%	100.0%
561613	0.0%	4.5%	0.0%	0.0%	4.5%	9.1%	13.6%	86.4%	100.0%
561621	2.3%	2.7%	0.8%	0.4%	6.2%	3.9%	10.0%	90.0%	100.0%
561720	2.1%	2.6%	0.2%	0.0%	4.9%	4.5%	9.4%	90.6%	100.0%
561730	1.6%	1.4%	0.2%	0.0%	3.1%	3.3%	6.4%	93.6%	100.0%
561790	0.6%	0.7%	0.1%	0.1%	1.5%	2.2%	3.7%	96.3%	100.0%
561920	0.4%	2.2%	0.0%	0.0%	2.6%	12.8%	15.3%	84.7%	100.0%
561990	0.8%	0.9%	0.4%	0.1%	2.2%	3.2%	5.4%	94.6%	100.0%
562111	0.0%	15.8%	0.0%	0.0%	15.8%	26.3%	42.1%	57.9%	100.0%
562119	12.5%	0.0%	0.0%	0.0%	12.5%	62.5%	75.0%	25.0%	100.0%
562910	8.0%	16.0%	0.0%	0.0%	24.0%	36.0%	60.0%	40.0%	100.0%
562920	0.0%	0.7%	0.0%	0.0%	0.7%	3.5%	4.2%	95.8%	100.0%
562991	0.0%	3.9%	0.0%	0.0%	3.9%	6.9%	10.8%	89.2%	100.0%
562998	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	16.7%	83.3%	100.0%
611430	15.4%	23.1%	0.0%	7.7%	46.2%	38.5%	84.6%	15.4%	100.0%
611519	1.7%	0.0%	0.0%	0.0%	1.7%	14.3%	16.0%	84.0%	100.0%
611710	4.3%	2.9%	0.7%	0.0%	7.9%	27.1%	35.0%	65.0%	100.0%
621111	0.1%	0.1%	0.1%	0.0%	0.3%	4.5%	4.8%	95.2%	100.0%
621112	0.5%	0.0%	0.0%	0.0%	0.5%	2.9%	3.4%	96.6%	100.0%
621399	0.2%	0.4%	0.1%	0.0%	0.7%	11.8%	12.5%	87.5%	100.0%
621498	0.3%	0.1%	0.0%	0.0%	0.4%	3.8%	4.2%	95.8%	100.0%
621512	7.3%	2.4%	0.0%	0.0%	9.8%	7.3%	17.1%	82.9%	100.0%
624110	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	2.4%	97.6%	100.0%
624190	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	99.9%	100.0%
624230	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	3.4%	96.6%	100.0%
624410	0.1%	0.0%	0.0%	0.0%	0.1%	7.4%	7.5%	92.5%	100.0%
711219	0.0%	0.3%	0.0%	0.0%	0.3%	1.9%	2.2%	97.8%	100.0%
711320	0.0%	0.0%	0.0%	0.0%	0.0%	9.7%	9.7%	90.3%	100.0%
713940	0.1%	0.0%	0.0%	0.0%	0.1%	2.7%	2.8%	97.2%	100.0%
811111	0.1%	0.4%	0.1%	0.0%	0.6%	1.4%	2.0%	98.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE	Total
811192	0.7%	0.0%	0.0%	0.0%	0.7%	1.0%	1.7%	98.3%	100.0%
811198	0.5%	0.5%	0.0%	0.0%	0.9%	2.3%	3.2%	96.8%	100.0%
811211	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	5.1%	94.9%	100.0%
811212	0.0%	1.9%	0.9%	0.0%	2.8%	2.8%	5.6%	94.4%	100.0%
811310	0.2%	0.7%	0.0%	0.0%	0.9%	1.9%	2.8%	97.2%	100.0%
811420	0.0%	2.0%	0.0%	0.0%	2.0%	10.9%	12.9%	87.1%	100.0%
812320	1.0%	0.0%	0.0%	0.0%	1.0%	7.3%	8.3%	91.7%	100.0%
812331	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	7.7%	92.3%	100.0%
812910	0.0%	0.2%	0.0%	0.0%	0.2%	8.2%	8.4%	91.6%	100.0%
812930	1.7%	0.0%	0.0%	0.0%	1.7%	1.7%	3.3%	96.7%	100.0%
813920	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	99.9%	100.0%
922110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
922130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
923120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.9%	1.0%	0.7%	0.1%	2.7%	4.7%	7.3%	92.7%	100.0%

Source: CHA analysis of City of Austin data; Hoovers; CHA Master Directory

Table 4-9: Distribution of the City Spending by NAICS Code (the Weights)

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
115112	Soil Preparation, Planting, and Cultivating	0.0003%
212312	Crushed and Broken Limestone Mining and Quarrying	0.02%
212321	Construction Sand and Gravel Mining	0.002%
221121	Electric Bulk Power Transmission and Control	0.3%
221122	Electric Power Distribution	0.2%
221210	Natural Gas Distribution	0.01%
221310	Water Supply and Irrigation Systems	0.03%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.004%
236116	New Multifamily Housing Construction (except For-Sale Builders)	0.2%
236210	Industrial Building Construction	0.5%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
236220	Commercial and Institutional Building Construction	2.9%
237110	Water and Sewer Line and Related Structures Construction	3.3%
237120	Oil and Gas Pipeline and Related Structures Construction	0.1%
237130	Power and Communication Line and Related Structures Construction	0.3%
237210	Land Subdivision	0.03%
237310	Highway, Street, and Bridge Construction	8.4%
237990	Other Heavy and Civil Engineering Construction	0.7%
238110	Poured Concrete Foundation and Structure Contractors	0.9%
238120	Structural Steel and Precast Concrete Contractors	0.6%
238130	Framing Contractors	0.01%
238140	Masonry Contractors	0.03%
238150	Glass and Glazing Contractors	0.01%
238160	Roofing Contractors	0.1%
238190	Other Foundation, Structure, and Building Exterior Contractors	1.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.6%
238290	Other Building Equipment Contractors	0.3%
238310	Drywall and Insulation Contractors	0.8%
238320	Painting and Wall Covering Contractors	0.1%
238330	Flooring Contractors	0.2%
238340	Tile and Terrazzo Contractors	0.04%
238350	Finish Carpentry Contractors	0.6%
238390	Other Building Finishing Contractors	1.4%
238910	Site Preparation Contractors	2.6%
238990	All Other Specialty Trade Contractors	9.7%
321911	Wood Window and Door Manufacturing	0.001%
323111	Commercial Printing (except Screen and Books)	0.1%
324121	Asphalt Paving Mixture and Block Manufacturing	0.001%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0.02%
327320	Ready-Mix Concrete Manufacturing	0.05%
327332	Concrete Pipe Manufacturing	0.1%
327390	Other Concrete Product Manufacturing	0.003%
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	0.004%
332312	Fabricated Structural Metal Manufacturing	0.1%
332313	Plate Work Manufacturing	0.0002%
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	0.002%
333316	Photographic and Photocopying Equipment Manufacturing	0.3%
334290	Other Communications Equipment Manufacturing	0.1%
334516	Analytical Laboratory Instrument Manufacturing	0.01%
336411	Aircraft Manufacturing	0.01%
339113	Surgical Appliance and Supplies Manufacturing	0.02%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.9%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.1%
423130	Tire and Tube Merchant Wholesalers	0.2%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.003%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	1.1%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.1%
423440	Other Commercial Equipment Merchant Wholesalers	0.02%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.1%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.03%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.2%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.3%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.02%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.6%
423710	Hardware Merchant Wholesalers	0.1%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.2%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.02%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.1%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.9%
423840	Industrial Supplies Merchant Wholesalers	0.04%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.1%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.2%
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.01%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.1%
424340	Footwear Merchant Wholesalers	0.03%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.2%
424710	Petroleum Bulk Stations and Terminals	0.2%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.1%
424910	Farm Supplies Merchant Wholesalers	0.02%
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	0.02%
441110	New Car Dealers	0.5%
441210	Recreational Vehicle Dealers	0.03%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.1%
441310	Automotive Parts and Accessories Stores	0.5%
442110	Furniture Stores	0.2%
442210	Floor Covering Stores	0.04%
443142	Electronics Stores	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
444190	Other Building Material Dealers	1.9%
451110	Sporting Goods Stores	0.01%
453210	Office Supplies and Stationery Stores	0.2%
454110	Electronic Shopping and Mail-Order Houses	0.03%
481219	Other Nonscheduled Air Transportation	0.0003%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.8%
493110	General Warehousing and Storage	0.1%
512110	Motion Picture and Video Production	0.01%
515120	Television Broadcasting	0.2%
517311	Wired Telecommunications Carriers	0.01%
517312	Wireless Telecommunications Carriers (except Satellite)	1.1%
518210	Data Processing, Hosting, and Related Services	0.1%
519110	News Syndicates	0.01%
519130	Internet Publishing and Broadcasting and Web Search Portals	0.02%
519190	All Other Information Services	0.0002%
522110	Commercial Banking	0.4%
523910	Miscellaneous Intermediation	0.1%
523920	Portfolio Management	0.01%
523930	Investment Advice	0.02%
524114	Direct Health and Medical Insurance Carriers	4.5%
524210	Insurance Agencies and Brokerages	0.01%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.04%
531130	Lessors of Miniwarehouses and Self-Storage Units	0.1%
531190	Lessors of Other Real Estate Property	0.4%
531312	Nonresidential Property Managers	0.01%
531390	Other Activities Related to Real Estate	0.001%
532111	Passenger Car Rental	0.1%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.05%
541110	Offices of Lawyers	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
541211	Offices of Certified Public Accountants	0.7%
541219	Other Accounting Services	0.02%
541310	Architectural Services	0.7%
541320	Landscape Architectural Services	0.1%
541330	Engineering Services	4.7%
541340	Drafting Services	0.02%
541350	Building Inspection Services	0.1%
541370	Surveying and Mapping (except Geophysical) Services	0.4%
541380	Testing Laboratories	0.4%
541410	Interior Design Services	0.002%
541420	Industrial Design Services	0.04%
541430	Graphic Design Services	0.01%
541511	Custom Computer Programming Services	5.7%
541512	Computer Systems Design Services	0.8%
541513	Computer Facilities Management Services	0.9%
541611	Administrative Management and General Management Consulting Services	0.02%
541613	Marketing Consulting Services	0.02%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.4%
541620	Environmental Consulting Services	0.3%
541690	Other Scientific and Technical Consulting Services	0.1%
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	0.2%
541720	Research and Development in the Social Sciences and Humanities	0.1%
541820	Public Relations Agencies	0.1%
541870	Advertising Material Distribution Services	0.1%
541910	Marketing Research and Public Opinion Polling	0.03%
541922	Commercial Photography	0.1%
541930	Translation and Interpretation Services	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
541990	All Other Professional, Scientific, and Technical Services	0.1%
561110	Office Administrative Services	0.01%
561312	Executive Search Services	0.4%
561320	Temporary Help Services	2.1%
561440	Collection Agencies	0.1%
561492	Court Reporting and Stenotype Services	0.01%
561612	Security Guards and Patrol Services	0.2%
561613	Armored Car Services	0.01%
561621	Security Systems Services (except Locksmiths)	0.04%
561720	Janitorial Services	0.2%
561730	Landscaping Services	0.5%
561790	Other Services to Buildings and Dwellings	0.1%
561920	Convention and Trade Show Organizers	0.01%
561990	All Other Support Services	0.7%
562111	Solid Waste Collection	1.9%
562119	Other Waste Collection	0.01%
562910	Remediation Services	0.3%
562920	Materials Recovery Facilities	0.6%
562991	Septic Tank and Related Services	0.05%
562998	All Other Miscellaneous Waste Management Services	0.1%
611430	Professional and Management Development Training	0.01%
611519	Other Technical and Trade Schools	0.01%
611710	Educational Support Services	0.1%
621111	Offices of Physicians (except Mental Health Specialists)	0.1%
621112	Offices of Physicians, Mental Health Specialists	0.01%
621399	Offices of All Other Miscellaneous Health Practitioners	0.01%
621498	All Other Outpatient Care Centers	0.04%
621512	Diagnostic Imaging Centers	0.001%
624110	Child and Youth Services	0.01%
624190	Other Individual and Family Services	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
624230	Emergency and Other Relief Services	0.03%
624410	Child Day Care Services	0.1%
711219	Other Spectator Sports	0.1%
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	0.03%
713940	Fitness and Recreational Sports Centers	0.03%
811111	General Automotive Repair	0.6%
811192	Car Washes	0.1%
811198	All Other Automotive Repair and Maintenance	0.7%
811211	Consumer Electronics Repair and Maintenance	0.01%
811212	Computer and Office Machine Repair and Maintenance	0.01%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.5%
811420	Reupholstery and Furniture Repair	0.01%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.1%
812331	Linen Supply	0.2%
812910	Pet Care (except Veterinary) Services	0.04%
812930	Parking Lots and Garages	3.8%
813920	Professional Organizations	0.01%
922110	Courts	0.02%
922130	Legal Counsel and Prosecution	0.01%
923120	Administration of Public Health Programs	0.01%
TOTAL		100.0%

Source: CHA analysis of City of Austin data

Table 4-10 presents the weighted availability results for each of the racial and gender categories. The aggregated availability of MBEs and WBEs, weighted by the City's spending in its geographic and industry markets, is 14.4% for the City's contracts. This overall, weighted MBE and WBE availability results can be used by the City to determine its overall, annual aspirational MBE and WBE goals.

Black	Hispanic	Asian	Native American	MBE	White Women	MBE/ WBE	Non-MBE/ WBE	Total
1.5%	4.7%	1.4%	0.4%	8.0%	6.5%	14.4%	85.6%	100.0%

Table 4-10: Aggregated Weighted Availability for the City Contracts

Source: CHA analysis of City of Austin data; Hoovers; CHA Master Directory

3. Analysis of the Concentration of Contract Dollars among Firms

In addition to examining the level of MBE/WBE and non-MBE/WBE contract dollar utilization, another important dimension to a disparity analysis is the level of contract dollars concentration among MBE/WBE and non-MBE/WBE firms. This approach is important because the success of a group in receiving contract dollars may be caused by an unusual amount of dollars concentrated among a few firms. If that is the case, then a race- or gender-based remedial program may still be supportable even though a few firms have been able to overcome discriminatory barriers. This section presents data to examine this issue.

Prior to presenting these data, it is important to emphasize two important findings: 1) the three NAICS codes that provide the most contract dollars to each MBE/WBE capture a larger share of the overall City spending received by the group than the share of overall City spending captured by the top three NAICS codes for the City; and 2) the three NAICS codes that provide the most contract dollars to MBEs/WBEs are different from the three NAICS codes that provide non-MBE/WBE firms their most contract dollars.

With respect to the first finding, Table 4-11 presents data on the share of the City contract dollars received by the top three NAICS codes for each demographic group. These shares are derived from the data presented in Tables 4-5 and 4-6. The three NAICS codes where the City spent most of its contract dollars capture 26.7% of all City spending. However, for each MBE/WBE group, the corresponding figure for the share of spending captured by the top three codes is approximately half of this: ranging between 96.0% (Native Americans) and 32.0% (White Women).

Demographic Group	Share of All the City Spending in the Top Three NAICS Codes for Each Group
All	26.7%
Black	53.2%
Hispanic	35.6%
Asian	45.1%
Native American	96.0%
White Woman	32.0%
Non-MBE/WBE	30.1%

Table 4-11: Comparison of the Share of the City Spending Captured by the Top Three NAICSCodes for Each Demographic Group

Source: CHA analysis of City of Austin data

With respect to the second finding, Table 4-12 provides more detail on the data presented in Table 4-11. The Table lists the top three codes for each group and their corresponding share of the City spending. The code with the largest amount of City spending – NAICS code 238990 (All Other Specialty Trade Contractors) – is not one of the top three codes for any MBE/WBE group. The code with the second largest amount of City spending - NAICS code 238220 (Plumbing, Heating, and Air-Conditioning Contractors) - is among the top three codes only for Hispanics. The code with the third largest amount of City spending – NAICS code 237310 (Highway, Street, and Bridge Construction) – only appears as one of the top three codes for Native Americans and not at all for other groups. We can conclude that the NAICS codes that are important to the City overall are different than the codes that are important to MBEs/WBEs.

NAICS	NAICS Code Label	WEIGHT	Total of Top 3 Codes
	All		
238990	All Other Specialty Trade Contractors	9.7%	
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.6%	26.7%
237310	Highway, Street, and Bridge Construction	8.4%	

Table 4-12: The Top Three the City Spending NAICS Codes for Each Demographic Group

NAICS	NAICS Code Label	WEIGHT	Total of Top 3 Codes
	Black	1	
238190	Other Foundation, Structure, and Building Exterior Contractors	25.5%	
484220	Specialized Freight (except Used Goods) Trucking, Local	15.8%	53.2%
561320	Temporary Help Services	11.9%	
	Hispanic		
562111	Solid Waste Collection	14.3%	
238220	Plumbing, Heating, and Air-Conditioning Contractors	10.9%	35.6%
238210	Electrical Contractors and Other Wiring Installation Contractors	10.4%	-
	Asian		
541511	Custom Computer Programming Services	23.7%	
541330	Engineering Services	12.3%	45.1%
561320	Temporary Help Services	9.1%	
	Native American		
444190	Other Building Material Dealers	58.6%	
561320	Temporary Help Services	29.2%	96.0%
237310	Highway, Street, and Bridge Construction	8.2%	
	White Woman		
561320	Temporary Help Services	12.2%	
541511	Custom Computer Programming Services	10.9%	32.0%
238390	Other Building Finishing Contractors	8.9%	
	Non-MBE/WBE		
238990	All Other Specialty Trade Contractors	11.3%	
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.4%	30.1%
237310	Highway, Street, and Bridge Construction	9.3%	

Source: CHA analysis of City of Austin data

Tables 4-13 through 4-32 present more details on how City spending varies across groups and within groups. These results illustrate the different levels of concentration of contract dollars among MBEs/WBEs compared to non-MBEs/WBEs. For each demographic group, we re-state the three NAICS codes where

the group receives the largest share of the City's spending (first presented in Table 4-12). We next present the share of all group contract dollars and compare that share to the corresponding share received by non-MBEs/WBEs. Finally, we examine each of the NAICS codes individually to compare the concentration of contract dollars among the three largest firms for that group to the concentration of contract dollars among the three largest non-MBEs/WBEs. WBEs.

Tables 4-13 through 4-16 present data for Black-owned firms.

- Table 4-13 presents the three NAICS codes where Black firms received the largest share of their contract dollars. While these codes captured 53.2% of all Black contract dollars, the corresponding figure for non-MBEs/WBEs was 2.1%. In particular, while the City only spent one percent of its dollars in NAICS code 238190, 25.5% of all Black contract dollars came from this code. This disproportionality was evident in the other two leading codes for Black firms: NAICS code 484220 contributed 15.8% to all Black contract dollars but just 0.8% to all the City spending; NAICS code 561320 contributed 11.9% to all Black contract dollars but just 2.1% to all the City spending.
- Table 4-14 presents data on the firm concentration in NAICS 238190. Here, one Black firm received one contract from the City; in contrast, two non-MBE/WBE firms received a total of two contracts.
- Table 4-15 presents data on the firm concentration in NAICS 484220. In this code, nine Black firms received 14 contracts; for non-MBEs/WBEs, the corresponding figures were 11 firms received seven contracts. Here, one firm received 79.2% of all Black contract dollars; in contrast, the top non-MBE/WBE firm received just 34.3% of all non-MBE/WBE dollars.
- Table 4-16 presents data on the firm concentration in NAICS 561320. One Black firm received seven contracts; for non-MBEs/WBEs, six firms received 12 contracts. While the one firm received 100% of the Black contract dollars; in contrast, the top non-MBE/WBE firm received only 30.8% of all non-MBE/WBE dollars.

NAICS Code	NAICS Code Label	Weight	Share of Total Black Dollars	Share of Total Non-MBE/WBE Dollars
238190	Other Foundation, Structure, and Building Exterior Contractors	1.0%	25.5%	0.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.8%	15.8%	0.4%
561320	Temporary Help Services	2.1%	11.9%	1.0%
Total 3-code Share of Total Group Dollars		53.2%	2.1%	

Table 4-13: Three NAICS Codes where Black Firms Received the Most Spending

Source: CHA analysis of City of Austin data

Table 4-14: Comparison of Black and non-MBE/WBE Firm Concentration NAICS Code 238190: Other Foundation, Structure, and Building Exterior Contractors

	Black	Non-MBE/ WBE
Number of Contracts	1	2
Number of Firms	1	2
Share of #1	100.0%	65.4%
Share of #2		34.6%
Share of #3		
Share of Top 3	100.0%	100.0%

Source: CHA analysis of City of Austin data

Table 4-15: Comparison of Black and non-MBE/WBE Firm ConcentrationNAICS Code 484220: Specialized Freight (except Used Goods) Trucking, Local

	Black	Non-MBE/ WBE
Number of Contracts	14	11
Number of Firms	9	7
Share of #1	79.2%	34.3%
Share of #2	6.9%	32.6%
Share of #3	6.0%	14.7%
Share of Top 3	92.1%	81.5%

Source: CHA analysis of City of Austin data

	Black	Non-MBE/ WBE
Number of Contracts	3	12
Number of Firms	1	6
Share of #1	100.0%	30.8%
Share of #2		29.5%
Share of #3		15.5%
Share of Top 3	100.0%	75.8%

Table 4-16: Comparison of Black and non-MBE/WBE Firm Concentration NAICS Code 561320: Temporary Help Services

Tables 4-17 through 4-20 present data for Hispanic-owned firms.

- Table 4-17 presents the three NAICS codes where Hispanic firms received the largest share of their contract dollars. While these codes comprised 35.6% of all Hispanic contract dollars, the corresponding figure for non-MBEs/WBEs was 17.8%. In particular, while the City only spent 1.9% of its dollars in NAICS code 562111, 14.3% of all Hispanic contract dollars came from this code. This disproportionality was evident in the other two leading codes for Hispanic firms: NAICS code 238220 contributed 10.9% to all Hispanic contract dollars but only 8.6% to all the City spending; NAICS code 238210 contributed 10.4% to all Hispanic contract dollars but only 7.2% to all the City spending.
- Table 4-18 presents data on the firm concentration in NAICS 562111. Here, one Hispanic firm received four contracts from the City; in contrast, three non-MBEs/WBEs received six contracts. While one Hispanic firm received 100% of the Hispanic contract dollars, the top non-MBE/WBE received 82.3% of all non-MBE/WBE contract dollars.
- Table 4-19 presents data on the firm concentration in NAICS 238220. Ten Hispanic firms received 12 contracts; for non-M/BEWBEs, the corresponding figures were 36 firms received 44 contracts. One firm received 80.9% of all Hispanic contract dollars; in contrast, the top non-MBE/WBE received only 52.3% of all non-MBE/WBE dollars.
- Table 4-20 presents data on the firm concentration in NAICS 238210. In this code, six Hispanic firms received 11 contracts; for non-MBEs/WBEs, the corresponding figures were 38 firms received 52 contracts. One firm received 61.8% of all Hispanic contract dollars; in contrast, the top non-MBEWBE received 20.8% of all non-MBE/WBE dollars.

NAICS Code	NAICS Code Label	Weight	Share of Total Hispanic Dollars	Share of Total Non-MBE/WBE Dollars
562111	Solid Waste Collection	1.9%	14.3%	1.3%
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.6%	10.9%	9.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.2%	10.4%	7.1%
Total 3-code Share of Total Group Dollars		35.6%	17.8%	

Table 4-17: Three NAICS Codes where Hispanic Firms Received the Most Spending

Source: CHA analysis of City of Austin data

Table 4-18: Comparison of Hispanic and Non-MBE/WBE Firm Concentration NAICS Code 562111: Solid Waste Collection

	Hispanic	Non-M/ BEWBE
Number of Contracts	4	6
Number of Firms	1	3
Share of #1	100.0%	82.3%
Share of #2		17.6%
Share of #3		0.1%
Share of Top 3	100.0%	100.0%

Source: CHA analysis of City of Austin data

Table 4-19: Comparison of Hispanic and Non-MBE/WBE Firm Concentration NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors

	Hispanic	Non-MBE/ WBE
Number of Contracts	12	44
Number of Firms	10	36
Share of #1	80.9%	52.3%
Share of #2	8.9%	15.2%
Share of #3	4.6%	11.7%
Share of Top 3	94.4%	79.2%

Source: CHA analysis of City of Austin data

	Hispanic	Non-MBE/ WBE
Number of Contracts	11	52
Number of Firms	6	38
Share of #1	61.8%	20.8%
Share of #2	28.3%	18.6%
Share of #3	7.2%	16.9%
Share of Top 3	97.3%	56.3%

Table 4-20: Comparison of Hispanic and Non-M/BEWBE Firm Concentration NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors

Tables 4-21 through 4-24 present data for Asian-owned firms.

- Table 4-21 presents the three NAICS codes where Asian firms received the largest share of their contract dollars. While these codes captured 45.1% of all Asian contract dollars, the corresponding figure for non-MBEs/WBEs was 10.4%. In particular, while the City only spent 5.7% of its dollars in NAICS code 541511, 23.7% of all Asian contract dollars came from this code. This disproportionality was evident in the other two leading codes for Asian firms: NAICS code 541330 contributed 12.3% to all Asian contract dollars but just 4.7% to all the City spending; NAICS code 561320 contributed 9.1% to all Asian contract dollars and 2.1% to all the City spending.
- Table 4-22 presents data on the firm concentration in NAICS 541511. Five Asian firms received 16 contracts from the City; in contrast, 20 non-MBEs/ WBEs firms received 40 contracts. One Asian firm received 58.4% of all Asian contract dollars; the top non-MBE/WBE received 36.6% of all non-MBE/WBE contract dollars received by all non-MBEs/WBEs.
- Table 4-23 presents data on the firm concentration in NAICS 541330. Fourteen Asian firms received 63 contracts; for non-MBEs/WBEs, the corresponding figures were 43 firms received six contracts. One firm received 24.0% of all Asian contract dollars; in contrast, the top non-MBE/ WBE received 19.9% of all non-MBE/WBE dollars.
- Table 4-24 presents data on the firm concentration in NAICS 561320. In this code, five Asian firms received eight contracts; for non-MBEs/WBEs, the corresponding figures were six firms received 12 contracts. One firm received 49.3% of all Asian contract dollars; in contrast, the top non-MBE/WBE firm received 30.8% of all non-MBE/WBE dollars.

NAICS Code	NAICS Code Label	Weight	Share of Total Asian Dollars	Share of Total Non-MBE/WBE Dollars
541511	Custom Computer Programming Services	5.7%	23.7%	5.2%
541330	Engineering Services	4.7%	12.3%	4.1%
561320	Temporary Help Services	2.1%	9.1%	1.0%
Total 3-code Share of Total Group Dollars		45.1%	10.4%	

Table 4-21: Three NAICS Codes where Asian Firms Received the Most Spending

Source: CHA analysis of City of Austin data

Table 4-22: Comparison of Asian and Non-MBE/WBE Firm Concentration

NAICS Code 541511: Custom Computer Pro	ogramming Services
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	Asian	Non-MBE/ WBE
Number of Contracts	16	40
Number of Firms	5	20
Share of #1	58.4%	36.6%
Share of #2	20.1%	22.8%
Share of #3	12.3%	8.4%
Share of Top 3	90.9%	67.7%

Source: CHA analysis of City of Austin data

Table 4-23: Comparison of Asian and Non-MBE/WBE Firm Concentration NAICS Code 541330: Engineering Services

	Asian	Non-MBE/ WBE
Number of Contracts	36	63
Number of Firms	14	43
Share of #1	24.0%	19.9%
Share of #2	21.1%	16.7%
Share of #3	20.8%	13.0%
Share of Top 3	65.9%	49.6%

Source: CHA analysis of City of Austin data

	Asian	Non-MBE/ WBE
Number of Contracts	8	12
Number of Firms	5	6
Share of #1	49.3%	30.8%
Share of #2	29.5%	29.5%
Share of #3	11.5%	15.5%
Share of Top 3	90.3%	75.8%

Table 4-24: Comparison of Asian and Non-MBE/WBE Firm Concentration NAICS Code 561320: Temporary Help Services

Source: CHA analysis of City of Austin data

Tables 4-25 through 4-28 present data for Native American-owned firms.

- Table 4-25 presents the three NAICS codes where Native American firms received the largest share of their contract dollars. While these codes captured 96.0% of all Native American contract dollars, the corresponding figure for non-MBEs/WBEs was 12.5%. In particular, while the City only spent 4.3% of its dollars in NAICS code 444190, 58.6% of all Native American contract dollars came from this code. This disproportionality was evident in NAICS code 561320, which contributed 29.2% to all Native American contract dollars but just 2.1% to all the City spending. There was parity in NAICS code 237310 which contributed 8.2% to all Native American contract dollars and 8.4% to all the City spending.
- Table 4-26 presents data on the firm concentration in NAICS 444190. Just one Native American firm received only one contract from the City; in contrast, five non-MBEs/WBEs received 10 contracts. The leading non-MBE/WBE firm received 70.8% of all non-MBE/WBE contract dollars received by all non-MBEs/WBEs.
- Table 4-27 presents data on the firm concentration in NAICS 561320. Once again, one Native American firm received only one contract; for non-MBEs/WBEs, the corresponding figures were six firms and 12 contracts. The leading non-MBE/WBE firm received only 30.8% of all non-MBE/WBE dollars.
- Table 4-28 presents data on the firm concentration in NAICS 237310. In this code, two Native American firms received two contracts; for non-MBEs/WBEs, the corresponding figures were 35 firms who received 49 contracts. The top Native American firm received 55.3% of all Native

American contract dollars; in contrast, the top non-MBE/WBE firm received 40.5% of all non-MBE/WBE dollars.

Table 4-25: Three NAICS Codes where Native American Firms Received the Most Spending

NAICS Code	NAICS Code Label	Weight	Share of Total Native American Dollars	Share of Total Non-M/BEWBE Dollars
444190	Other Building Material Dealers	1.9%	58.6%	2.1%
561320	Temporary Help Services	2.1%	29.2%	1.0%
237310	Highway, Street, and Bridge Construction	8.4%	8.2%	9.3%
Total 3-co	ode Share of Total Group Dollars	•	96.0%	12.5%

Source: CHA analysis of City of Austin data

Table 4-26: Comparison of Native American and Non-MBE/WBE Firm Concentration NAICS Code 444190: Other Building Material Dealers

	Native American	Non-MBE/ WBE
Number of Contracts	1	10
Number of Firms	1	5
Share of #1	100.0%	70.8%
Share of #2		24.2%
Share of #3		3.8%
Share of Top 3	100.0%	98.8%

Source: CHA analysis of City of Austin data

	Native American	Non-MBE/ WBE		
Number of Contracts	1	12		
Number of Firms	1	6		
Share of #1	100.0%	30.8%		
Share of #2		29.5%		
Share of #3		15.5%		
Share of Top 3	100.0%	75.8%		

Table 4-27: Comparison of Native American and Non-MBE/WBE Firm Concentration NAICS Code 561320: Temporary Help Services

Source: CHA analysis of City of Austin data

Table 4-28: Comparison of Native American and Non-MBE/WBE Firm Concentration NAICS Code 237310: Highway, Street, and Bridge Construction

	Native American	Non-MBE/ WBE
Number of Contracts	2	49
Number of Firms	2	35
Share of #1	55.3%	40.5%
Share of #2	44.7%	25.9%
Share of #3		10.6%
Share of Top 3	100.0%	76.9%

Source: CHA analysis of City of Austin data

Tables 4-29 through 4-32 present data for White woman-owned firms.

• Table 4-29 presents the three NAICS codes where White woman firms received the largest share of their contract dollars. While these codes comprise 32.0% of all White woman contract dollars, the corresponding figure for non-MBEs/WBEs was 7.2%. In particular, while the City only spent 2.1% of its dollars in NAICS code 561320, 12.2% of all White woman contract dollars came from this code. This disproportionality was evident in the other two leading codes for White woman firms: NAICS code 541511 contributed 10.9% to all White woman contract dollars but just 5.7% to all the City spending; NAICS code 238390 contributed 8.9% to all White woman contract dollars and 1.4% to all the City spending.

- Table 4-30 presents data on the firm concentration in NAICS 561320. One White woman firm received 12 contracts; for non-MBEs/WBEs, the corresponding figures were five firms received 12 contracts. One firm received 29.4% of all White woman contract dollars; in contrast, the top non-MBE/WBE firm received 30.8% of all non-MBE/WBE dollars.
- Table 4-31 presents data on the firm concentration in NAICS 541511. Here, eight White woman firms received 13 contracts from the City; in contrast, 20 non-MBE/WBE firms received 40 contracts. One White woman firm received 50.6% of all White woman contract dollars; the top non-MBE/WBE received 36.6% of all non-MBE/WBE contract dollars received by the top non-MBE/WBE.
- Table 4-32 presents data on the firm concentration in NAICS 238390. In this code, six White woman firms received seven contracts; for non-MBEs/WBEs, the corresponding figures were 12 firms received 13 contracts. Here, one firm received 65.1% of all White woman contract dollars; in contrast, the top non-M/BEWBE received 46.9% of all non-MBE/WBE dollars.

NAICS Code	NAICS Code Label	Weight	Share of Total White Woman Dollars	Share of Total Non-MBE/WBE Dollars
561320	Temporary Help Services	2.1%	12.2%	1.0%
541511	Custom Computer Programming Services	5.7%	10.9%	5.2%
238390	Other Building Finishing Contractors	1.4%	8.9%	0.9%
Total 3-co	ode Share of Total Group Dollars		32.0%	7.2%

Table 4-29: Three NAICS Codes where White Woman Firms Received the Most Spending

Source: CHA analysis of City of Austin data

Table 4-30: Comparison of White Woman and Non-MBE/WBE Firm Concentration NAICS Code 561320: Temporary Help Services

	White Woman	Non-MBE/ WBE
Number of Contracts	12	12
Number of Firms	1	5
Share of #1	29.4%	30.8%

	White Woman	Non-MBE/ WBE
Share of #2	23.0%	29.5%
Share of #3	20.8%	15.5%
Share of Top 3	73.2%	75.8%

Source: CHA analysis of City of Austin data

Table 4-31: Comparison of White Woman and Non-MBE/WBE Firm Concentration NAICS Code 541511: Custom Computer Programming Services

	White Woman	Non-MBE/ WBE		
Number of Contracts	13	40		
Number of Firms	8	20		
Share of #1	50.6%	36.6%		
Share of #2	29.3%	22.8%		
Share of #3	7.2%	8.4%		
Share of Top 3	87.0%	67.7%		

Source: CHA analysis of City of Austin data

Table 4-32: Comparison of White Woman and Non-MBE/WBE Firm Concentration NAICS Code 238390: Other Building Finishing Contractors

	White Woman	Non-MBE/ WBE
Number of Contracts	7	13
Number of Firms	6	12
Share of #1	65.1%	46.9%
Share of #2	17.9%	22.4%
Share of #3	10.7%	8.9%
Share of Top 3	93.6%	78.1%

Source: CHA analysis of City of Austin data

The data presented in Tables 4-13 through 4-32 support the inference that regardless of any statistical disparities between contract utilization and weighted availability, the experiences of MBEs/WBEs with respect to participation in the City's Program is significantly different than the experiences of non-MBEs/WBEs:

- The NAICS codes where MBEs/WBEs receive a large proportion of their contract dollars are different from the codes where non-MBEs/WBEs receive a large portion of their contract dollars.
- The contract dollars that MBEs/WBEs receive are much more concentrated in a few codes than the contract dollars that non-MBEs/WBEs receive.
- Within the NAICS codes in which the City spends much of its contract dollars, those dollars are concentrated among a few MBEs/WBEs much more than the non-MBEs/WBE firms in those same codes.

These results suggest that while a few MBEs/WBEs in a few industries have been able to enjoy equal opportunities, access to City contracts and subcontracts is still not equally available to all firms.

F. Disparity Analysis

As required by strict constitutional scrutiny, we next calculated disparity ratios for each demographic group, comparing the group's total utilization compared to its total weighted availability.

A *disparity ratio* is the relationship between the utilization and weighted availability (as determined in the section above). Mathematically, this is represented by:

$$DR = U/WA$$

Where DR is the disparity ratio; U is utilization rate; and WA is the weighted availability.

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to measure a result's significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80% of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.¹⁷⁰ Second, statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the

^{170.} See U.S. Equal Employment Opportunity Commission regulation, 29 C.F.R. §1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.").

smaller the probability that it resulted from random chance alone.¹⁷¹ A more indepth discussion of statistical significance is provided in Appendix C.

Substantive and Statistical Significance

- Connotes these values are substantively significant. Courts have ruled the disparity ratio less or equal to 80 percent represent disparities that are substantively significant. (See Footnote 170 for more information.)
- * Connotes these values are statistically significant at the 0.05 level. (See Appendix C for more information.)
- ** Connotes these values are statistically significant at the 0.01 level. (See Appendix C for more information.)
- *** Connotes these values are statistically significant at the 0.001 level. (See Appendix C for more information.)

Table 4-33 presents the disparity ratios for each demographic group. The disparity ratios for Native Americans are substantively significant. No other ratios are statistically or substantively significant.

Table 4-33: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	MBE	White Woman	MBE/ WBE	Non-MBE/ WBE
Disparity Ratio	118.0%	122.1%	142.5%	20.0% [‡]	119.5%	104.4%	112.7%	97.9%

Source: CHA analysis of City of Austin data

‡ Indicates substantive significance

It is standard CHA practice to explore any MBE or WBE disparity ratio that exceeds 100%. This is to ensure that an abnormal pattern of MBE/WBE concentration does not account for disparity ratios greater than 100%, thereby leading to the unwarranted conclusion that race- or gender-conscious remedies are no longer needed to redress discrimination against a particular socially disadvantaged group. It is possible that a group's disparity ratio that is larger than 100% might be the result of the success of a few firms and not indicative of the experiences of the broad set of firms in that group. This exploration entails further examination of any NAICS codes where:

- The NAICS code share of overall spending is four percent.
- The particular MBE/WBE utilization in that code is six percent.

^{171.} A chi-square test – examining if the utilization rate was different from the weighted availability - was used to determine the statistical significance of the disparity ratio.

Given these criteria, we examined more closely the utilization of Hispanic, Asian, and White Woman firms in selected codes. There were not any NAICS codes where the utilization of Black firms met the criteria for exploration. Tables 4-34 through 4-43 present the results of this investigation.

Table 4-34 presents the three NAICS codes selected to further explore the Hispanic disparity ratio of 122.1%. NAICS codes 238220, 238210, and 541330 ranked second, fourth, and sixth, respectively, in terms of the overall amount of the City spending in each code. Of the top seven NAICS codes, these three were the only codes where Hispanic utilization exceeded six percent.

NAICS	NAICS Code Description	Weight	Overall Weight Rank	Hispanic Utilization
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.6%	2	7.3%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.2%	4	8.3%
541330	Engineering Services	4.7%	6	9.1%

Table 4-34: Targeted NAICS Codes for Further Exploration

Source: CHA analysis of City of Austin data

In Tables 4-35 through 4-37, we explore the levels of firm concentration by examining several factors:

- The NAICS code's share of all the City spending with Hispanic firms compared to the NAICS code's share of the City spending received by non-MBEs/WBEs. This examines how important spending in the NAICS code was to the overall revenue received by Hispanic firms compared to that same metric for non-MBEs/WBEs. In a world where race and gender did not affect outcomes, the share would be similar.
- The number of Hispanic firms that received contracts compared to the number of non-MBEs/WBEs that received contracts.
- The share of Hispanic contract dollars in each NAICS code received by the first, second, and third largest Hispanic firms compared to the corresponding non-MBEs/WBEs.
- The aggregate share of Hispanic contract dollars received by the top three Hispanic firms and the corresponding figure for non-MBEs/WBEs.
- The aggregate share of Hispanic contract dollars received by Hispanic firms outside of the top three firms along with the corresponding figure for the non-MBEs/WBEs outside of the top three.

These five metrics evaluate whether fewer Hispanic firms received contracts compared to non-MBEs/WBEs and whether the Hispanic contract dollars were more concentrated compared to the level of concentration among non-MBEs/WBEs. If either was the case, then the high level of utilization by Hispanic firms (and hence, the high disparity ratio) resulted from the success of a few Hispanic firms and not from a distribution across the entire spectrum of Hispanic firms. This would be in contrast to a wider spectrum of success among non-MBE/WBE firms.

Table 4-35 presents these data for Hispanic firms and non-MBEs/WBEs in NAICS Code 238220. This code contained 10.9% of all Hispanic contract dollars but only 9.4% of all non-M/BEWBE contract dollars. Fewer Hispanic firms received contracts in this code compared to the number of non-MBEs/WBEs. Also, the level of concentration of contract dollars was less for Hispanic firms than for non-MBE/WBE firms: 1. the largest Hispanic firm received 80.9% of all Hispanic contract dollars received by the largest non-MBE/WBE firm; and 2. the top three Hispanic firms received 94.4% of all Hispanic contract dollars compared to the top three non-MBE/WBE firms, which received 79.2% of all non-MBE/WBE contract dollars.

	Hispanic	Non-MBE/ WBE
NAICS code share of all spending	10.9%	9.4%
Number of firms	10	36
Share of group spending in NAICS code by the largest firm	80.9%	52.3%
Share of group spending in NAICS code by the second largest firm	8.9%	15.2%
Share of group spending in NAICS code by the third largest firm	4.6%	11.7%
Share of group spending in NAICS code by the three largest firms	94.4%	79.2%
Share of group spending in NAICS code by the remaining firms	5.6%	20.8%

Table 4-35: Comparing Hispanic and Non-MBE/WBE Outcomes NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors (NAICS Code Weight of All the City Spending: 8.6%)

Source: CHA analysis of City of Austin data

Table 4-36 presents these data for Hispanic firms and non-MBE/WBE firms in NAICS Code 238210. This code contained 10.4% of all Hispanic contract dollars but only 7.1% of all non-MBE/WBE contract dollars. Fewer Hispanic firms received contracts in this code compared to the number of non-MBEs/WBEs. The level of concentration of contract dollars was greater for Hispanic firms than for non-MBEs/WBEs: the largest Hispanic firm received 61.8% of all Hispanic contract dollars.

lars in this code compared to the 20.8% of all non-MBE/WBE contract dollars received by the largest non-MBEs/WBEs.

Table 4-36: Comparing Hispanic and Non-MBE/WBE Outcomes NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors (NAICS Code Weight of All the City Spending: 7.2%)

	Hispanic	Non-MBE/ WBE
NAICS code share of all spending	10.4%	7.1%
Number of firms	6	38
Share of group spending in NAICS code by the largest firm	61.8%	20.8%
Share of group spending in NAICS code by the second largest firm	28.3%	18.6%
Share of group spending in NAICS code by the third largest firm	7.2%	16.9%
Share of group spending in NAICS code by the three largest firms	97.3%	56.3%
Share of group spending in NAICS code by the remaining firms	2.7%	43.7%

Source: CHA analysis of City of Austin data

Table 4-37 presents these data for Hispanic firms and non-MBEs/WBEs in NAICS Code 541330. This code contained 7.5% of all Hispanic contract dollars but only 4.1% of all non-MBE/WBE contract dollars. Fewer Hispanic firms received contracts in this code compared to the number of non-MBEs/WBEs. The level of concentration of contract dollars was higher for Hispanic firms than for non-MBE/WBE firms: the largest Hispanic firm received 27.2% of all Hispanic contract dollars in this code compared to the 19.9% of all non-MBE/WBE contract dollars received by the largest non-MBE/WBE firm. In addition, the top three Hispanic firms received 67.1% of all Hispanic dollars compared a 49.6% share for the top three non-MBE/WBE firms.

Table 4-37: Comparing Hispanic and Non-MBE/WBE Outcomes NAICS Code 541330: Engineering Services (NAICS Code Weight of All the City Spending: 4.7%)

	Hispanic	Non-MBE/ WBE
NAICS code share of all spending	7.5%	4.1%
Number of firms	24	43
Share of group spending in NAICS code by the largest firm	27.2%	19.9%
Share of group spending in NAICS code by the second largest firm	26.8%	16.7%

	Hispanic	Non-MBE/ WBE
Share of group spending in NAICS code by the third largest firm	13.1%	13.0%
Share of group spending in NAICS code by the three largest firms	67.1%	49.6%
Share of group spending in NAICS code by the remaining firms	32.9%	50.4%

Source: CHA analysis of City of Austin data

In summary, for all three codes, the codes' share of Hispanic contract dollars exceeded the codes' share of non-MBE/WBE contract dollars. In each code, the number of Hispanic firms receiving contracts was less than the number of non-MBE/WBE firms receiving contracts. The degree of concentration among Hispanic firms compared to the degree of concentration among non-MBE/WBE firms was higher. These results suggest the small number of Hispanic firms receiving any contracts in these key NAICS codes (compared to the number of non-MBE/WBE firms) combined with the high share of Hispanic contract dollars contained in these three codes (compared to corresponding share of non-MBE/WBE contract dollars) explains the high disparity ratio for Hispanic firms.

The approach used to examine the Hispanic disparity ratio was also used for the disparity ratios for Asian and White woman firms.

Table 4-38 presents the two NAICS codes selected to further explore the Asian disparity ratio of 142.5%. NAICS codes 541511, and 541330 ranked fifth and sixth respectively in terms of the overall amount of the City spending in each code. Of the top seven NAICS codes, these three were the only codes where Asian utilization exceeded six percent.

NAICS	NAICS Code Description	Weight	Overall Weight Rank	Asian Utilization
541511	Custom Computer Programming Services	5.7%	5	8.1%
541330	Engineering Services	4.7%	6	5.1%

Table 4-38: Targeted NAICS Codes for Further Exploration

Source: CHA analysis of City of Austin data

Table 4-39 presents these data for Asian firms and non-MBE/WBE firms in NAICS Code 541511. This code contains 23.7% of all Asian contract dollars but only 5.2% of all non-MBE/WBE contract dollars. Fewer Asian firms received contracts in this code compared to the number of non-MBE/WBE firms. The level of concentration of contract dollars was greater for Asian firms than for non-MBE/WBE firms: the largest Asian firm received 58.4% of all Asian contract dollars in this code compared to the 36.6% of all non-MBE/WBE contract dollars received by the largest

non-MBE/WBE firm. In addition, the top three Asian firms received 90.9% of all Asian dollars compared a 67.7% share for the top three non-MBE/WBE firms.

Table 4-39: Comparing Asian and Non-MBE/WBE Outcomes NAICS Code 541511: Custom Computer Programming Services (NAICS Code Weight of All the City Spending: 5.7%)

	Asian	Non-MBE/ WBE
NAICS code share of all spending	23.7%	5.2%
Number of firms	5	20
Share of group spending in NAICS code by the largest firm	58.4%	36.6%
Share of group spending in NAICS code by the second largest firm	20.1%	22.8%
Share of group spending in NAICS code by the third largest firm	12.3%	8.4%
Share of group spending in NAICS code by the three largest firms	90.9%	67.7%
Share of group spending in NAICS code by the remaining firms	9.1%	32.3%

Source: CHA analysis of City of Austin data

Table 4-40 presents these data for Asian firms and non-MBE/WBE firms in NAICS Code 541330. This code contains 7.5% of all Asian contract dollars but only 4.1% of all non-MBE/WBE contract dollars. Fewer Asian firms received contracts in this code compared to the number of non-MBE/WBE firms. The level of concentration of contract dollars was greater for Asian firms than for non-MBE/WBE firms: the largest Asian firm received 24.0% of all Asian contract dollars in this code compared to the 19.9% of all non-MBE/WBE contract dollars received by the largest non-MBE/WBE firm. In addition, the top three Asian firms received 65.9% of all Asian dollars compared a 49.6% share for the top three non-MBE/WBE firms.

Table 4-40: Comparing Asian and Non-MBE/WBE Outcomes

NAICS Code 541330: Engineering Services

(NAICS Code Weight of All the City Spending: 4.7%)

	Asian	Non-MBE/ WBE
NAICS code share of all spending	7.5%	4.1%
Number of firms	14	43
Share of group spending in NAICS code by the largest firm	24.0%	19.9%
Share of group spending in NAICS code by the second largest firm	21.1%	16.7%

	Asian	Non-MBE/ WBE
Share of group spending in NAICS code by the third largest firm	20.8%	13.0%
Share of group spending in NAICS code by the three largest firms	65.9%	49.6%
Share of group spending in NAICS code by the remaining firms	34.1%	50.4%

Source: CHA analysis of City of Austin data

In summary, for both codes, the codes' share of Asian contract dollars exceeded the codes' share of non-MBE/WBE contract dollars. In each code, the number of Asian firms receiving contracts was less than the number of non-MBEs/WBEs receiving contracts. The degree of concentration among Asian firms was greater than the degree of concentration among non-MBE/WBE firms. These results strongly suggest the concentration of the City spending in these codes to Asian firms explains the high disparity ratio for Asian firms.

Table 4-41 presents the three NAICS codes selected to further explore the White Woman disparity ratio of 104.4%. NAICS codes 238210, 541511, and 541330 ranked 4th, 5th and 6th respectively in terms of the overall amount of the City spending in each code. Of the top six NAICS codes, these three were the only codes where White Woman utilization exceeded six percent.

NAICS	NAICS Code Description	Weight	Overall Weight Rank	White Woman Utilization
238210	Electrical Contractors and Other Wiring Installation Contractors	7.2%	4	6.5%
541511	Custom Computer Programming Services	5.7%	5	13.0%
541330	Engineering Services	4.7%	6	11.0%

Table 4-41: Targeted NAICS Codes for Further Exploration

Source: CHA analysis of City of Austin data

Table 4-42 presents these data for White woman firms and non-MBEs/WBEs in NAICS Code 238210. This code accounts for 6.9% of all White woman contract dollars and 7.1% of all non-MBE/WBE contract dollars. Fewer White woman firms received contracts in this code compared to the number of non-MBEs/WBEs. Also, the level of concentration of contract dollars was greater for White woman firms than for non-MBEs/WBEs: the largest White woman firm received 30.6% of all White woman contract dollars in this code compared to the 20.8% of all non-MBE/WBE contract dollars received by the largest non-MBE/WBE; and the top three White woman firms received 74.6% of all White woman contract dollars, compared to the top three non-MBEs/WBEs which received 56.3% of all non-MBE/WBE contract dollars.

	White Woman	Non-MBE/ WBE
NAICS code share of all spending	6.9	7.1%
Number of firms	9	38
Share of group spending in NAICS code by the largest firm	30.6%	20.8%
Share of group spending in NAICS code by the second largest firm	27.7%	18.6%
Share of group spending in NAICS code by the third largest firm	16.3%	16.9%
Share of group spending in NAICS code by the three largest firms	74.6%	56.3%
Share of group spending in NAICS code by the remaining firms	25.4%	43.7%

Table 4-42: Comparing White Woman and Non-MBE/WBE Outcomes NAICS Code 541511: Custom Computer Programming Services (NAICS Code Weight of All the City Spending: 5.7%)

Source: CHA analysis of City of Austin data

Table 4-43 presents these data for White woman firms and non-MBEs/WBEs in NAICS Code 541511. This code accounts for 10.9% of all White woman contract dollars but only 5.2% of all non-MBE/WBE contract dollars. Fewer White woman firms received contracts in this code compared to the number of non-MBEs/WBEs. Also, the level of concentration of contract dollars was greater for White woman firms than for non-MBEs/WBEs: the largest White woman firm received 50.6% of all White woman contract dollars in this code compared to the 36.6% of all non-MBE/WBE contract dollars received by the largest non-MBE/WBE; and the top three White woman firms received 87.0% of all White woman contract dollars compared to the top three non-MBEs/WBEs which received 67.7% of all non-MBE/WBE contract dollars.

Table 4-43: Comparing White Woman and Non-MBE/WBE OutcomesNAICS Code 541511: Custom Computer Programming Services

(NAICS Code Weight of All the City Spending: 5.7%)

	White Woman	Non-MBE/ WBE
NAICS code share of all spending	10.9%	5.2%
Number of firms	8	20
Share of group spending in NAICS code by the largest firm	50.6%	36.6%
Share of group spending in NAICS code by the second largest firm	29.3%	22.8%

	White Woman	Non-MBE/ WBE
Share of group spending in NAICS code by the third largest firm	7.2%	8.4%
Share of group spending in NAICS code by the three largest firms	87.0%	67.7%
Share of group spending in NAICS code by the remaining firms	13.0%	32.3%

Source: CHA analysis of City of Austin data

Table 4-44 presents these data for White woman firms and non-MBEs/WBEs in NAICS Code 541330. This code contained 7.7% of all White woman contract dollars but only 4.1% of all non-MBE/WBE contract dollars. Fewer White woman firms received contracts in this code compared to the number of non-MBEs/WBEs. The level of concentration of contract dollars was greater for White woman firms than for non-MBEs/WBEs: the largest White woman firm received 62.8% of all White woman contract dollars in this code compared to the 19.9% of all non-MBE/WBE contract dollars received by the largest non-MBE/WBE firm.

Table 4-44: Comparing White Woman and Non-MBE/WBE Outcomes NAICS Code 541330: Engineering Services (NAICS Code Weight of All the City Spending: 4.7%)

	White Woman	Non-MBE/ WBE
NAICS code share of all spending	7.7%	4.1%
Number of firms	18	43
Share of group spending in NAICS code by the largest firm	62.8%	19.9%
Share of group spending in NAICS code by the second largest firm	11.4%	16.7%
Share of group spending in NAICS code by the third largest firm	5.5%	13.0%
Share of group spending in NAICS code by the three largest firms	79.7%	49.6%
Share of group spending in NAICS code by the remaining firms	20.3%	50.4%

Source: CHA analysis of City of Austin data

In Tables 4-44, 4-45 and 4-46, the codes' share of White woman contract dollars exceeded the codes' share of non-MBE/WBE contract dollars. In each code, the number of White woman firms receiving contracts was less than the number of non-MBEs/WBEs receiving contracts. The degree of concentration among White woman firms was greater than the degree of concentration among non-MBE/WBE firms. These results strongly suggest the concentration of the City spending in these codes to White woman firms explains the high disparity ratio for White woman firms.

G. Conclusion

This Chapter provides the analysis of whether the City's MBE/WBE Program has fully remediated any discrimination in its market area. We analyzed these data to understand patterns in firm concentration and disparity ratios for locally funded contracts. Overall, we found that, compared to non-MBEs/WBEs, minority- and woman-owned firms were concentrated in a different subset of industries. Further, in some industries, only a few M/W/DBEs received contracts in contrast to non- MBEs/WBEs. This suggests that although the City's MBE/WBE Program has been quite successful in creating opportunities for minority and woman firms, these benefits have not been spread evenly across all groups or subindustries. We find the data as a whole support the conclusion that minority and woman firms have not reached parity in all aspects of the City's local contracting activities compared to non- MBE/WBE firms. City of Austin Disparity Study 2022

V. ANALYSIS OF DISPARITIES IN THE CITY OF AUSTIN AREA ECONOMY

A. Introduction

The late Nobel Prize Laureate Kenneth Arrow, in his seminal paper on the economic analysis of discrimination, observed:

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid, and credit extended.¹⁷²

This Chapter explores the data and literature relevant to how discrimination in the City of Austin area economy affects the ability of minorities and women to fairly and fully engage in City of Austin ("City") contract opportunities. First, we analyze the rates at which M/WBEs in the City of Austin area economy form firms and their earnings from those firms. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative intervention.

A key element to determine the need for the City to intervene in its market through contract goals is an analysis of the extent of disparities independent of the agency's intervention through its contracting affirmative action program.

The courts have repeatedly held that analyses of disparities in the rate of M/WBE formation in the government's markets as compared to similar non-M/WBEs, disparities in M/WBE earnings, and barriers to access to capital markets are highly relevant to a determination of whether market outcomes are affected by race or gender ownership status.¹⁷³ Similar analyses supported the successful legal

^{172.} Arrow, Kenneth J., "What Has Economics to say about racial discrimination?" *Journal of Economic Perspectives*, 12, 2, (1998), 91-100.

^{173.} See the explanation in Chapter II of the legal standards applicable to contracting affirmative action programs.

defense of the Illinois Tollway's Disadvantaged Business Enterprise ("DBE") Program from constitutional challenge.¹⁷⁴

Similarly, the Tenth Circuit Court of Appeals also upheld the U.S. Department of Transportation's DBE program, and in doing so, stated that this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.¹⁷⁵

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. In unanimously upholding the USDOT DBE Program, federal courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.¹⁷⁶ "Evidence that private discrimination results in barriers to business formation is relevant because it demon-

^{174.} Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al, 840 F.3d 942 (7th Cir. 2016) (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony, including about disparities in the overall Illinois construction industry); *Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al*, 2015 WL 1396376 at * 21 (N.D. Ill.) ("Colette Holt [& Associates'] updated census analysis controlled for variables such as education, age, and occupation and still found lower earnings and rates of business formation among women and minorities as compared to white men."); *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts satisfied "compelling interest" standards using this framework).

^{175.} Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1168-1169 (10th Cir. 2000), cert. granted then dismissed as improvidently granted, 532 U.S. 941 (2001).

^{176.} Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868, at *64 (Sept. 8, 2005).

strates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."¹⁷⁷

This type of court-approved analysis is especially important for an agency such as the City, which has been implementing a program for many years. The agency's remedial market interventions through the use of race- and gender-based contract goals may ameliorate the disparate impacts of marketplace discrimination in the agency's own contracting activities. Put another way, the program's success in moving towards parity for minority and woman firms may be "masking" the effects of discrimination that, but for the contract goals, would mirror the disparities in M/WBE utilization in the overall economy.

To explore the question of whether firms owned by non-Whites and White women face disparate treatment in the City marketplace outside of the City contracts, we examined the U.S. Bureau of the Census' *American Community Survey* ("ACS") which allows us to analyze disparities using individual entrepreneurs as the basic unit of analysis.¹⁷⁸ We used the Austin-metropolitan area as the geographic unit of analysis.

We found disparities in wages, business earnings and business formation rates for minorities and women in all industry sectors in the City's marketplace.¹⁷⁹

B. Disparate Treatment in the City of Austin Marketplace: Evidence from the Census Bureau's 2015 - 2019 American Community Survey

As discussed in the beginning of this Chapter, the key question is whether firms owned by non-Whites and White women face disparate treatment in the marketplace without the intervention of the City's MBE/WBE Program. In this section, we use the Census Bureau's ACS data to explore this and other aspects of this question. One element asks if demographic differences exist in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue

^{177.} *Id*.

^{178.} Data from 2015 - 2019 American Community Survey are the most recent for a five-year period.

^{179.} Possible disparities in wages are important to explore because of the relationship between wages and business formation. Research by Alicia Robb and others indicate non-White firms rely on their own financing to start businesses compared to White firms who rely more heavily on financing provided by financial institutions. To the extent non-Whites face discrimination in the labor market, they would have reduced capacity to self-finance their entrepreneurial efforts and, hence, impact business formation. *See, for example,* Robb's "Access to Capital among Young Firms, Minority-owned Firms, Woman-owned Firms, and High-tech Firms" (2013), https://www.sba.gov/sites/default/files/files/rs403tot(2).pdf.

of possible variations in the rate of business formation by different demographic groups. One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital, or the income level affects one's ability to borrow funds. Consequently, if particular demographic groups receive lower wages and salaries then they would have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.

The American Community Survey Public Use Microdata Sample ("PUMS") is useful in addressing these issues. The ACS is an annual survey of one percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for years 2015 through 2019.¹⁸⁰ With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

The Census Bureau classifies Whites, Blacks, Native Americans, and Asians as racial groupings. CHA developed a fifth grouping, "Other", to capture individuals who are not a member of the above four racial categories. In addition, Hispanics are an ethnic category whose members could be of any race, *e.g.*, Hispanics could be White or Black. In order to avoid double counting – *i.e.*, an individual could be counted once as Hispanic and once as White – CHA developed non-Hispanic subset racial categories: non-Hispanic Whites; non-Hispanic Blacks; non-Hispanic Native Americans; non-Hispanic group, the entire population is counted and there is no double-counting. When Whites are disaggregated into White men and White women, those groupings are non-Hispanic White men and non-Hispanic White women. For ease of exposition, the groups in this report are referred to as Black, Native American, Asian, Other, White women, and White men, while the actual content is the non-Hispanic subset of these racial groups.

Often, the general public sees clear associations between race, gender, and economic outcomes and assumes this association reflects a tight causal connection. However, economic outcomes are determined by a broad set of factors including, and extending beyond, race and gender. To provide a simple example, two people who differ by race or gender may receive different wages. This difference may simply reflect that the individuals work in different industries. If this underlying difference is not known, one might assert the wage differential is the result of race or gender difference. To better understand the impact of race or gender on wages, it is important to compare individuals of different races or genders who work in the

^{180.} Initially, the Census Bureau contacted approximately 3.5M households. For the analysis reported in this Chapter, we examined over 47,000 observations. For more information about the ACS PUMS, see https://www.census.gov/pro-grams-surveys/acs/.

same industry. Of course, wages are determined by a broad set of factors beyond race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence in the analysis.

We employ a multiple regression statistical technique to process this data. This methodology allows us to perform two analyses: an estimation of how variations in certain characteristics (called independent variables) will impact the level of some particular outcome (called a dependent variable), and a determination of how confident we are that the estimated variation is statistically different from zero. We have provided a more detailed explanation of this technique in Appendix A.

With respect to the first result of regression analysis, we examine how variations in the race, gender, and industry of individuals impact the wages and other economic outcomes received by individuals. The technique allows us to determine the effect of changes in one variable, assuming that the other determining variables are the same. That is, we compare individuals of different races, but of the same gender and in the same industry; or we compare individuals of different genders, but of the same race and the same industry; or we compare individuals in different industries, but of the same race and gender. We determine the impact of changes in one variable (*e.g.*, race, gender or industry) on another variable (wages), "controlling for" the movement of any other independent variables.

With respect to the second result of regression analysis, we determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist (*e.g.*, holding all other factors constant, women earn less than men), but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates that we are 95% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates that we are 99% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates that we are 99.9% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates that we are 99.9% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates that we are 99.9% confident that the relationship is different from zero.

In the following presentation of results, each sub-section first reports data on the share of a demographic group that forms a business (business formation rates);

^{181.} Most social scientists do not endorse utilizing a confidence level of less than 95%. Appendix C explains more about statistical significance.

the probabilities that a demographic group will form a business relative to White men (business formation probabilities); the differences in wages received by a demographic group relative to White men (wage differentials); and the differences in business earnings received by a demographic group relative to White men (business earnings differentials). Because the ACS contained limited observations for certain groups in particular industries, we were unable to provide reliable estimates for business outcomes for these groups. However, there were always sufficient observations in the sample of wage earners in each group in each industry to permit us to develop reliable estimates.

1. All Industries Combined in the Austin Metropolitan Area

One method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the U.S. Bureau of the Census' ACS for the Austin-Round Rock Metropolitan Statistical Area. Table 5-1 presents these results.

The business formation rate represents the share of a population that forms businesses. When developing industry-specific rates, we examine the population that works in that particular industry and identify what share of that sub-population that form businesses. For example, Table 5-1 indicates that 2.7% of Blacks forms businesses; this is less than the 6.7% business formation rate for White men. The Table indicates that White men have higher business formation rates compared to non-Whites and White women. Table 5-2 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender.¹⁸² This Table indicates that non-Whites and White women are less likely to form businesses compared to White men; the reduced probability ranges from 0.6% for Others to 4.7% for Native Americans. These results were statistically significant at the 0.01 level for Blacks, Hispanics, and White women.

With respect to the interpretation of the level of statistical significance of a result, as indicated in the latter part of the previous section, we are exploring whether the result of the regression analysis is statistically different from zero; if the finding is statistically significant, we also indicate the level of statistical confidence at which the result is accurate. Table 5-2 indicates that the probability that Blacks form businesses is 3.9% less than the probability that White men form business, once we control for age, education, and occupation. The statistical significance of this result is at the 0.01 level, which means we are 95% statistically confident the result is true. If a result is non-zero but the result is not statistically significant, then we cannot rule out zero being the true

^{182.} Appendix B provides a "Further Explanation of Probit Regression Analysis."

result. Note: this does not mean the result is wrong, only there is not a statistically significant level of confidence in the result. Table 5-2 indicates that the probability that Native Americans form businesses is 4.7% less than White men.

Another way to measure equity is to examine how the wage and salary incomes and business earnings of particular demographic groups compare to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcomes while controlling for other factors, such as education and age.¹⁸³ Tables 5-3 and 5-4 present this data on wage and salary incomes and business earnings respectively. Table 5-3 indicates that non-Whites and White women earn less than White men. The reduction in earnings ranges from 19.3% to 46.8% and all the results are statistically significant at the 0.001 level (except the coefficient for Native Americans which is statistically significant at the 0.05 level). Table 5-4 indicates that Blacks, Others, and White women receive business earnings less than White men. The reduction in earnings ranges from 186.0% to 58.9%. These results were statistically significant.

Demographic Group	Business Formation Rates
Black	2.7%
Hispanic	2.7%
Native American	1.8%
Asian/Pacific Islander	3.8%
Other	5.1%
White Women	4.6%
Non-White Male	3.5%
White Male	6.7%

Table 5-1: Business Formation Rates

All Industries, 2015 - 2019¹⁸⁴

Source: CHA calculations from the American Community Survey

^{183.} See Appendix A for more information on multiple regression statistical analysis.

^{184.} Statistical significance tests were not conducted on basic business formation rates.

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-3.9% ^{**}
Hispanic	-2.7%**
Native American	-4.7%
Asian/Pacific Islander	-1.5%
Other	-0.6%
White Women	-1.7%**

Table 5-2: Business Formation Probabilities Relative to White MalesAll Industries, 2015 - 2019

Source: CHA calculations from the American Community Survey ** Indicates statistical significance at the 0.01 level

Table 5-3: Wage Differentials for Selected Groups Relative to White Men All Industries, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-32.6%***
Hispanic	-19.3%***
Native American	-24.8%*
Asian/Pacific Islander	-27.5%***
Other	-46.8%***
White Women	-30.2%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

Demographic Group	Earnings Relative to White Men (% Change)
Black	-92.6%**
Hispanic	1.3%
Native American	105.0%
Asian/Pacific Islander	40.4%
Other	-186.0% ^{*a}
White Women	-58.9% ^{***}

Table 5-4: Business Earnings Differentials for Selected Groups Relative to White Men All Industries

a. The proper way to interpret a coefficient that is less than negative 100% (e.g., the value of the coefficient for Other in Table 5-4), is the percentage amount non-M/ WBEs earn that is more than the group in question. In this case, non-M/WBEs earn 186% more than Others.

Source: CHA calculations from the American Community Survey

- *** Indicates statistical significance at the 0.001 level
- ** Indicates statistical significance at the 0.01 level
- * Indicates statistical significance at the 0.05 level

2. The Construction Industry in the Austin Metropolitan Area

There were low numbers of Native American (1) and Other firms (0) in the sample of the construction industry; consequently, reliable estimates of firm outcomes could not be made for these groups. Table 5-5 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 5-6 indicates that non-Whites and White women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 15.9% to 0.8%. None of these coefficients were statistically significant. Table 5-7 indicates that non-Whites and White women earn less than White men. The statistically significant reductions in earnings range from 53.5% to 13.2%. Four of these coefficients were statistically significant.

Demographic Group	Business Formation Rates
Black	1.1%
Hispanic	4.9%
Native American	
Asian/Pacific Islander	4.2%
Other	
White Women	10.2%
Non-White Male	5.1%
White Male	14.3%

Table 5-5: Business Formation Rates, Construction, 2015 - 2019

Source: CHA calculations from the American Community Survey

Table 5-6: Business Formation Probability Differentials for Selected GroupsRelative to White Men, Construction, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-15.9%
Hispanic	-4.0%
Native American	
Asian/Pacific Islander	-4.3%
Other	
White Women	-0.8%

Source: CHA calculations from the American Community Survey

Table 5-7: Wage Differentials for Selected Groups Relative to White Men Construction, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-48.4%***
Hispanic	-15.4%***
Native American	-13.2%

Demographic Group	Wages Relative to White Men (% Change)
Asian/Pacific Islander	-53.5%**
Other	-42.6%
White Women	-25.4%**

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Table 5-8: Business Earnings Differentials for Selected Groups Relative to White Men Construction, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	37.3%
Hispanic	18.2%
Native American	
Asian/Pacific Islander	-140.0%
Other	
White Women	-88.6%

Source: CHA calculations from the American Community Survey

3. The Construction-Related Services Industry in the Austin Metropolitan Area

The sample of firms in the construction-related services industry contained too few numbers of Black, Hispanic, Native American, Asian, White woman, and Other firms to produce reliable estimates for these groups. The wages for White women were 18.6% less than those of White men and this result was statistically significant at the 0.01 level.

Demographic Group	Business Formation Rates
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	
Non-White Male	
White Male	7.0%

Table 5-9: Business Formation Rates

Construction-Related Services, 2015 - 2019

Source: CHA calculations from the American Community Survey

Table 5-10: Business Formation Probability Differentials for Selected GroupsRelative to White Men, Construction-related Services, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	

Source: CHA calculations from the American Community Survey

Demographic Group	Wages Relative to White Men (% Change)
Black	5.0%
Hispanic	-13.9%
Native American	
Asian/Pacific Islander	-5.7%
Other	-23.3%
White Women	-18.6%**

Table 5-11: Wage Differentials for Selected Groups Relative to White Men Construction-Related Services, 2015 - 2019

Source: CHA calculations from the American Community Survey ** Indicates statistical significance at the 0.01 level

Table 5-12: Business Earnings Differentials for Selected Groups Relative to White Men

Construction-related Services, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	

Source: CHA calculations from the American Community Survey

4. The Goods Industry in Austin Metropolitan Area

There were low numbers of Black (4), Hispanic (13), Native American (0), Asian (9), and Other firms (0) in the sample of the goods industry. Therefore, once again, reliable estimates of firm outcomes could not be made for these groups. Table 5-13 indicates that White women have higher business formation rates compared to White men. While Table 5-14 indicates that White women form businesses at a higher rate than White men, the result is statistically insignificant. Table 5-15 indicates that statistically significant results are found for five groups (Black; Hispanic; Asian/Pacific Islanders; Others; and White women) and all indicate lower wages relative to White men. Table 5-16 indicates that

the coefficients for White woman business earnings were not statistically significant.

00003, 2013 - 2013	
Demographic Group	Business Formation Rates
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	5.8%
Non-White Male	
White Male	3.7%

Table 5-13: Business Formation Rates Goods, 2015 - 2019

Source: CHA calculations from the American Community Survey

Table 5-14: Business Formation Probabilities Relative to White Males Goods, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	0.8%

Source: CHA calculations from the American Community Survey

Demographic Group	Wages Relative to White Men (% Change)
Black	-39.0% ^{***}
Hispanic	-16.5%**
Native American	-42.2%
Asian/Pacific Islander	-44.4%***
Other	-113.0%**
White Women	-51.9% ^{***}

Table 5-15: Wage Differentials for Selected Groups Relative to White Men Goods, 2015 - 2019

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Table 5-16: Business Earnings Differentials for Selected Groups Relative to White MenGoods, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	
Hispanic	
Native American	
Asian/Pacific Islander	
Other	
White Women	60.5%

Source: CHA calculations from the American Community Survey

5. The Services Industry in Austin Metropolitan Area

There were low numbers of Native American (1) and Other firms (8) in the sample of the services industry; consequently, reliable estimates of firm outcomes could not be made for these groups. Table 5-17 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 5-18 indicates that non-Whites and White women are less likely to form businesses compared to similarly situated White men and the coefficients are statistically significant at the 0.01 level. Table 5-19 indicates that non-Whites and White men – ranging from 19.5% to 34.2% – and these coefficients were statistically significant. Table 5-20 indicates that Black-owned and White woman-owned firms earned less than White male-owned firms and these results were statistically significant.

Demographic Group	Business Formation Rates
Black	3.3%
Hispanic	2.9%
Native American	
Asian/Pacific Islander	4.1%
Other	
White Women	5.8%
Non-White Male	4.3%
White Male	8.1%

Table 5-17: Business Formation Rates Services, 2015 - 2019

Source: CHA calculations from the American Community Survey

Table 5-18: Business Formation Probability Differentials for Selected GroupsRelative to White Men, Services, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-3.3%**
Hispanic	-2.6%**
Native American	
Asian/Pacific Islander	-2.5%**
Other	
White Women	-1.6%**

Source: CHA calculations from the American Community Survey ** Indicates statistical significance at the 0.01 level

Demographic Group	Wages Relative to White Men (% Change)	
Black	-31.4%***	
Hispanic	-19.5% ^{***}	
Native American	-23.0%	
Asian/Pacific Islander	-28.7% ^{***}	
Other	-34.2%**	
White Women	-26.3% ^{***}	

Table 5-19: Wage Differentials for Selected Groups Relative to White Men Services, 2015 - 2019

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Table 5-20: Business Earnings Differentials for Selected Groups Relative to White Men Services, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	-129.0%**
Hispanic	-26.8%
Native American	
Asian/Pacific Islander	21.9%
Other	
White Women	-60.4%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

6. The Information Technology Industry in the Austin Metropolitan Area

There were low numbers of Blacks (2), Hispanics (10), Native American (0), and Other (1) sampled in the information technology industry. Therefore, reliable estimates of firm outcomes could not be made in this sector. Table 5-21 indicates that White men have higher business formation rates compared to Asians but lower compared to White women. Table 5-22 indicates that none of the coefficients were statistically significant. Table 5-23 indicates that non-Whites and White women earn less than White men and the coefficients for Blacks, Hispanics, Asians, and White women were statistically significant. Table 5-24 indicates that two business coefficients (Asian/Pacific Islanders; White women) were not statistically significant.

Table 5-21: Business Formation RatesInformation Technology, 2015 - 2019

Demographic Group	Business Formation Rates	
Black		
Hispanic		
Native American		
Asian/Pacific Islander	3.0%	
Other		
White Women	4.6%	
Non-White Male		
White Male	4.1%	

Source: CHA calculations from the American Community Survey

Table 5-22: Business Formation Probability Differentials for Selected Groups Relative to White Men,Information Technology, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	
Hispanic	
Native American	
Asian/Pacific Islander	-1.8%
Other	
White Women	-0.3%

Source: CHA calculations from the American Community Survey

Demographic Group	Wages Relative to White Men (% Change)	
Black	-20.4%**	
Hispanic	-30.9% ^{***}	
Native American	-9.0%	
Asian/Pacific Islander	-16.3% ^{***}	
Other	-17.0%	
White Women	-21.1%***	

Table 5-23: Wage Differentials for Selected Groups Relative to White Men Information Technology, 2015 - 2019

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Table 5-24: Business Earnings Differentials for Selected Groups Relative to White Men Information Technology, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)	
Black		
Hispanic		
Native American		
Asian/Pacific Islander	-10.7%	
Other		
White Women	-63.0%	

Source: CHA calculations from the American Community Survey

7. Conclusion

Overall, the data presented in the above tables indicate that non-Whites and White women form businesses less than White men and their wage and business earnings are less than those of White men. These analyses support the conclusion that barriers to business success do affect non-Whites and White women.

C. Disparate Treatment in the City of Austin Area Marketplace: Evidence from the Census Bureau's 2017 Annual Business Survey

We further examined whether non-Whites and White women have disparate outcomes when they are active in the City of Austin area marketplace. This question is operationalized by exploring if the share of business receipts, number of firms, and payroll for firms owned by non-Whites and White women is greater than, less than, or equal to the share of all firms owned by non-Whites and White women.

To answer this question, we examined the U.S. Bureau's Annual Business Survey ("ABS"). The ABS supersedes the more well-known Survey of Business Owners ("SBO"). The SBO was last conducted in 2012 and historically has been reported every five years. In contrast, the ABS was first conducted in 2017 and it is the Census Bureau's goal to release results annually. As of the writing of this report, the most recent complete ABS contains 2017 data. The ABS surveyed about 850,000 employer firms and collected data on a variety of variables documenting ownership characteristics including race, ethnicity, and gender. It also collected data on the firms' business activity with variables marking the firms' number of employ-ees, payroll size, sales and industry.¹⁸⁵ For this analysis, we examined firms in the State of Texas. The state was the geographic unit of analysis because the ABS does not present data at the sub-state level.

With these data, we grouped the firms into the following ownership categories:^{186,187}

- Hispanics
- non-Hispanic Blacks
- non-Hispanic Native Americans
- non-Hispanic Asians
- non-Hispanic White women
- non-Hispanic White men
- Firms equally owned by non-Whites and Whites
- Firms equally owned by men and women

^{185.} For more information on the Annual Business Survey see https://www.census.gov/programs-surveys/abs/about.html.

^{186.} Race and gender labels reflect the categories used by the Census Bureau.

^{187.} For expository purposes, the adjective "non-Hispanic" will not be used in this Chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Hispanic.

• Firms that were either publicly-owned or where the ownership could not be classified

For purposes of this analysis, the first four groups were aggregated to form a non-White category. Since our interest is the treatment of non-White-owned firms and White woman-owned firms, the last four groups were aggregated to form one category. To ensure this aggregated group is described accurately, we label this group "not non-White/non-White women". While this label is cumbersome, it is important to be clear this group includes firms whose ownership extends beyond White men, such as firms that are not classifiable or that are publicly traded and thus have no racial ownership. In addition to the ownership demographic data, the Survey also gathers information on the sales, number of paid employees, and payroll for each reporting firm.

We analyzed the ABS data on the following sectors:

- Construction
- Professional, Scientific and Technical Services
- Goods
- Other services

The ABS data – a sample of all businesses, not the entire universe of all businesses – required some adjustments. In particular, we had to define the sectors at the two-digit North American Industry Classification System ("NAICS") code level, and therefore our sector definitions do not exactly correspond to the definitions used to analyze the City contract data in Chapter IV, where we are able to determine sectors at the six-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells may be so small that the Census Bureau does not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe. We therefore report two-digit data.

Table 5-25 presents information on which NAICS codes were used to define each sector.

ABS Sector Label	Two-Digit NAICS Codes
Construction	23
Professional, Scientific, and Technical Services ^a	54
Goods	31,42, 44
Other Services	48, 52, 53, 56, 61, 62, 71, 72, 81

Table 5-25: Two-Digit NAICS Code Definition of Sector

a. This sector includes (but is broader than just) construction-related services. It is impossible to narrow this category to construction-related services without losing the capacity to conduct race and gender specific analyses.

The balance of this Chapter reports the findings of the ABS analysis.

1. All Industries

For a baseline analysis, we examined all industries. Table 5-26 presents data on the percentage share that each group has of the total of each of the following four business outcomes:

- The number of firms with employees (employer firms)
- The sales and receipts of all employer firms
- The number of paid employees
- The annual payroll of employer firms

Panel A of Table 5-26 presents data for the four basic non-White racial groups:

- Black
- Hispanic
- Native American
- Asian

Panel B of Table 5-26 presents data for the following types of firm ownership:

- Non-White
- White women
- Not non-White/non-White women¹⁸⁸

Categories in the second panel are mutually exclusive. Hence, firms that are non-White and equally owned by men and women are classified as non-White and firms that are equally owned by non-Whites and Whites and equally owned by men and women are classified as equally owned by non-Whites and Whites.

Since the central issue is the possible disparate treatment of non-White firms and White woman firms, we calculate three disparity ratios each for Black, Hispanic, Asian, Native American, non-White, and White woman firm respectively (a total of 18 ratios), presented in Table 5-27:

- Ratio of sales and receipts share for all employer firms over the share of total number of all employer firms.
- Ratio of sales and receipts share for employer firms over the share of total number of employer firms.
- Ratio of annual payroll share over the share of total number of employer firms.

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all employer firms for Black firms is 13.0% (as shown in Table 5-26). This is derived by taking the Black share of sales and receipts for all employer firms (0.3%) and dividing it by the Black share of total number of all employer firms (2.2%) that are presented in Table 5-26.¹⁸⁹ If Black-owned firms earned a share of sales equal to their share of total firms, the disparity index would have been 100%. An index less than 100% indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission's "80% rule" that a ratio less than 80% presents a *prima facie* case of discrimination.¹⁹⁰ All of the 18 disparity ratios for non-White firms and White woman firms are below this threshold.¹⁹¹

^{188.} Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

^{189.} Please note that while the numbers presented in Table 5-26 are rounded to the first decimal place, the calculations resulting in the numbers presented in Table 5-27 are based on the actual (non-rounded) figures. Therefore, the Black ratio presented in Table 5-27 of 13.0% (as presented in Table 5-27) is not the same figure as that which would be derived when you divided 0.3 by 2.2 (the numbers presented in Table 5-26).

^{190. 29} C.F.R. §1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or 80%) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.").

^{191.} Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results are not conducted.

	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)	
Panel A: Distributio	n of Non-White Firms				
Black	2.2%	0.3%	1.1%	0.6%	
Hispanic	12.2%	2.2%	5.7%	3.4%	
Asian	11.3%	2.1%	4.1%	2.4%	
Native American	0.4%	0.1%	0.2%	0.1%	
Panel B: Distribution	Panel B: Distribution of All Firms				
Non-White	26.1%	4.7%	11.1%	6.5%	
White Women	13.6%	2.7%	5.8%	4.5%	
Not Non-White/ Not White Women	60.3%	92.6%	83.1%	89.0%	
All Firms	100.0%	100.0%	100.0%	100.0%	

Table 5-26: Demographic Distribution of Sales and Payroll Data – Aggregated GroupsAll Industries, 2017

	Ratio of Sales to Number of Employer Firms	Ratio of Employees to Number of Employer Firms	Ratio of Payroll to Number of Employer Firms		
Panel A: Disparity Ratio for No	n-White Firms				
Black	13.0%	50.5%	26.2%		
Hispanic	18.0%	46.7%	27.5%		
Asian	18.5%	36.6%	21.6%		
Native American	22.1%	42.8%	30.0%		
Panel B: Disparity Ratios for All Firms					
Non-White	17.8%	42.6%	24.9%		
White Women	19.9%	42.9%	33.2%		
Not Non-White/Not White Women	153.6%	137.7%	147.6%		
All Firms	100.0%	100.0%	100.0%		

Table 5-27: Disparity Ratios of Firm Utilization MeasuresAll Industries, 2017

Source: CHA calculations from American Business Survey

This same approach was used to examine the Construction, Professional, Scientific and Technical Services, Goods, and Other Services sectors. The following are summaries of the results of the disparity analyses.

2. Construction Industry

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-28, 17 fall under the 80% threshold.

Table 5-28: Disparity Ratios – Aggregated Groups

Construction, 2017					
	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms		
Panel A: Disparity Ratios for N	on-White Firms				
Black	48.4%	58.0%	44.7%		
Hispanic	44.3%	52.3%	39.9%		
Asian	35.9%	33.9%	29.8%		
Native American	50.5%	69.2%	59.3%		
Panel B: Disparity Ratios for A	ll Firms				
Non-White	44.1%	51.8%	40.0%		
White Women	62.9%	84.0%	74.6%		
Not Non-White/Not White Women	119.4%	114.9%	119.2%		
All Firms	100.0%	100.0%	100.0%		

3. Professional, Scientific and Technical Services Industry

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-29, 18 fall under the 80% threshold.

Table 5-29: Disparity Ratios – Aggregated GroupsProfessional, Scientific and Technical Services, 2017

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for N	Ion-White Firms		
Black	33.0%	34.9%	25.5%
Hispanic	34.7%	44.2%	26.8%
Asian	43.3%	44.4%	39.1%
Native American	34.4%	33.3%	24.9%
Panel B: Disparity Ratios for A	ll Firms		
Non-White	38.5%	43.1%	32.3%
White Women	42.0%	44.1%	32.0%
Not Non-White/Not White Women	135.9%	133.8%	140.6%
All Firms	100.0%	100.0%	100.0%

4. Goods Industry

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-30, all 18 fall under the 80% threshold.

Table 5-30: Disparity Ratios – Aggregated Groups

Goods, 2017				
	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms	
Panel A: Disparity Ratios for N	Ion-White Firms	•		
Black	13.5%	25.8%	20.9%	
Hispanic	14.3%	29.8%	23.4%	
Asian	12.7%	21.4%	14.3%	
Native American	19.2%	42.7%	39.2%	
Panel B: Disparity Ratios for A	ll Firms	ł	1	
Non-White	13.4%	24.9%	18.1%	
White Women	13.8%	34.4%	30.8%	
Not Non-White/Not White Women	158.7%	148.9%	152.8%	
All Firms	100.00%	100.00%	100.00%	

5. Services Industry

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-31, all 18 fall under the 80% threshold.

Table 5-31: Disparity Ratios – Aggregated Groups

Services, 2017					
	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms		
Panel A: Disparity Ratios for Non-White Firms					
Black	21.9%	59.3%	33.2%		
Hispanic	24.6%	55.7%	34.5%		
Asian	23.7%	44.4%	26.4%		
Native American	23.3%	51.1%	24.7%		
Panel B: Disparity Ratios for All Firms					
Non-White	23.9%	51.3%	30.9%		
White Women	28.5%	46.8%	36.4%		
Not Non-White/Not White Women	157.6%	138.7%	152.0%		
All Firms	100.0%	100.0%	100.0%		

Services, 2017

Source: CHA calculations from American Business Survey

6. Conclusion

Overall, the analysis of the ABS data presented in the above tables indicate that non-Whites and White women share of all employer firms is greater than their share of sales, payrolls, and employees. This supports the conclusion that barriers to business success disproportionately affect non-Whites and White women.

D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. Participants in the anecdotal data collection universally agreed to this fundamental fact. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and woman-owned firms, had difficulties obtaining needed working capital to perform on City contracts and subcontracts, as well as expand the capacities of their firms. As demonstrated by the analyses of Census Bureau data, above, discrimination may even prevent firms from forming in the first place.

There are extensive federal agency reports and much scholarly work on the relationship between personal wealth and successful entrepreneurship. There is a general consensus that disparities in personal wealth translate into disparities in business creation and ownership.¹⁹² The most recent research highlights the magnitude of the COVID-19 pandemic's disproportionate impact on minority-owned firms.

1. Federal Reserve Board Small Business Credit Surveys¹⁹³

The Development Office of the 12 Reserve Banks of the Federal Reserve System has conducted Small Business Credit Surveys ("SBCS") to develop data on small business performance and financing needs, decisions, and outcomes.

a. 2021 Small Business Credit Survey

The 2021 SBCS¹⁹⁴ reached more than 15,000 small businesses, gathering insights about the COVID-19 pandemic's impact on small businesses, as well as business performance and credit conditions. The Survey yielded 9,693 responses from a nationwide convenience sample of small employer firms with between one and 499 full- or part-time employees across all 50 states and the District of Columbia. The survey was fielded in September and October 2020, approximately six months after the onset of the pandemic. The timing of the survey is important to the interpretation of the results. At the time of the survey, the Paycheck Protection Program ("PPP") authorized by the Coronavirus Relief and Economic Security Act had recently closed applications, and prospects for additional stimulus funding were uncertain. Additionally, many government-mandated business closures had been lifted as the number of new COVID-19 cases plateaued in advance of a significant increase in cases by the year's end.

The 2020 survey findings highlight the magnitude of the pandemic's impact on small businesses and the challenges they anticipate as they navigate changes in the business environment. Few firms avoided the negative impacts of the pandemic. Furthermore, the findings reveal disparities in

^{192.} See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," Journal of Political Economy, Vol. 97, No. 4, 1989, pp. 808-827; David S. Evans and Linda S. Leighton, "Some empirical aspects of entrepreneurship," *The American Economic Review*, Vol. 79, No. 3, 1989, pp. 519-535.

^{193.} This survey offers baseline data on the financing and credit positions of small firms before the onset of the pandemic. *See* fedsmallbusiness.org.

^{194.} https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/2021-sbcs-employer-firms-report.

experiences and outcomes across firm and owner demographics, including race and ethnicity, industry, and firm size.

Overall, firms' financial conditions declined sharply and those owned by people of color reported greater challenges. The most important anticipated financial challenge differed by race and ethnicity of the owners. Among the findings for employer firms relevant to discriminatory barriers were the following:

- For Black-owned firms, credit availability was the top expected challenge, while Asian-owned firms disproportionately cited weak demand.
- The share of firms in fair or poor financial conditions varied by race: 79% of Asian-owned firms, 77% of Black-owned firms, 66% of Hispanic-owned firms and 54% of White-owned firms reported this result.
- The share of firms that received all the financing sought to address the impacts of the pandemic varied by race: 40% of White-owned firms received all the funding sought, but only 31% of Asian-owned firms, 20% of Hispanic-owned firms and 13% of Black-owned firms achieved this outcome.

b. 2018 Small Business Credit Survey

The 2018 SBCS¹⁹⁵ focused on minority-owned firms. The analysis was divided into two types: employer firms and non-employer firms.

i. Employer firms

Queries were submitted to businesses with fewer than 500 employees in the third and fourth quarters of 2018. Of the 7,656 firms in the unweighted sample, five percent were Asian, ten percent were Black, six percent were Hispanic, and 79% were White. Data were then weighted by number of employees, age, industry, geographic location (census division and urban or rural location), and minority status to ensure that the data is representative of the nation's small employer firm demographics.¹⁹⁶

Among the findings for employer firms relevant to discriminatory barriers were the following:

^{195.} Small Business Credit Survey, https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.

^{196.} *Id* at 22. Samples for SBCS are not selected randomly. To control for potential biases, the sample data are weighted so that the weighted distribution of firms in the SBCS matches the distribution of the small firm population in the United States by number of employees, age industry, geographic location, gender of owner, and race or ethnicity of owners.

- Not controlling for other firm characteristics, fewer minorityowned firms were profitable compared to non-minority-owned firms during the past two years.¹⁹⁷ On average, minority-owned firms and non-minority-owned firms were about as likely to be growing in terms of number of employees and revenues.¹⁹⁸
- Black-owned firms reported more credit availability challenges or difficulties obtaining funds for expansion—even among firms with revenues of more than \$1M. For example, 62% of Black-owned firms reported that obtaining funds for expansion was a challenge, compared to 31% of White-owned firms.¹⁹⁹
- Black-owned firms were more likely to report relying on personal funds of owner(s) when they experienced financial challenges to fund their business. At the same time, White- and Asian-owned firms reported higher debt levels than Black- and Hispanic-owned firms.²⁰⁰ Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing. Forty percent of Black-owned firms did not apply because they were discouraged, compared to 14% of White-owned firms.²⁰¹
- Low credit score and lack of collateral were the top reported reasons for denial of applications by Black- and Hispanic-owned firms.²⁰²

ii. Non-employer firms²⁰³

Queries were submitted to non-employer firms in the third and fourth quarters of 2018. Of the 4,365 firms in the unweighted sample, five percent were Asian, 24% were Black, seven percent were Hispanic, and 64% were White. Data were then weighted by age, industry, geographic location (census division and urban or rural location), and minority status.²⁰⁴

Among the findings for non-employer firms relevant to discriminatory barriers were the following:

^{197.} *Id*. at 3.

^{198.} *Id*. at 4.

^{199.} *Id*. at 5.

^{200.} *Id*. at 6.

^{201.} *Id.* at 9. 202. *Id.* at 15.

^{202.} *Id.* at 15. 203. *Id.* at 18.

^{203.} *Id.* at 18. 204. *Id.* at 18.

- Black-owned firms were more likely to operate at a loss than other firms.²⁰⁵
- Black-owned firms reported greater financial challenges, such as obtaining funds for expansion, accessing credit and paying operating expenses than other businesses.²⁰⁶
- Black- and Hispanic-owned firms submitted more credit applications than White-owned firms.²⁰⁷

c. 2016 Small Business Credit Surveys

The 2016 Small Business Credit Survey²⁰⁸ obtained 7,916 responses from employer firms with race/ethnicity information and 4,365 non-employer firms in the 50 states and the District of Columbia. Results were reported with four race/ethnicity categories: White, Black or African American, Hispanic, and Asian or Pacific Islander.²⁰⁹ It also reported results from womanowned small employer firms, defined as firms where 51% or more of the business is owned by women, and compared their experiences with maleowned small employer firms.

2. The 2016 Report on Minority-Owned Businesses²¹⁰

The Report on Minority-Owned Businesses provided results for White-, Blackor African American-, Hispanic-, and Asian- or Pacific Islander-owned firms.

a. Demographics²¹¹

The SBCS found that Black-, Asian-, and Hispanic-owned firms tended to be younger and smaller in terms of revenue size, and they were concentrated in different industries. Black-owned firms were concentrated in the healthcare and education industry sectors (24%). Asian-owned firms were concentrated in professional services and real estate (28%). Hispanic-owned firms were concentrated in non-manufacturing goods production and associated services industry, including building trades and construction (27%). White-owned firms were more evenly distributed across several industries but operated most commonly in the professional services industry and real

^{205.} *Id*.

^{206.} *Id.* at 19.

^{207.} *Id.* at 20.

^{208.} https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.

^{209.} When the respondent sample size by race for a survey proved to be too small, results were communicated in terms of minority vis-à-vis non-minority firms.

^{210.} https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.

^{211. 2016} SBCS, at 2.

estate industries (19%), and non-manufacturing goods production and associated services industry (18%).²¹²

b. Profitability Performance Index²¹³

After controlling for other firm characteristics, the SBCS found that fewer minority-owned firms were profitable compared to non-minority-owned firms during the prior two years. This gap proved most pronounced between White- (57%) and Black-owned firms (42%). On average, however, minority-owned firms and non-minority-owned firms were nearly as likely to be growing in terms of number of employees and revenues.

c. Financial and Debt Challenges/Demands²¹⁴

The number one reason for financing was to expand the business or pursue a new opportunity. Eighty-five percent of applicants sought a loan or line of credit. Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing.

Black-, Hispanic-, and Asian-owned firms applied to large banks for financing more than they applied to any other sources of funds. Having an existing relationship with a lender was deemed more important to Whiteowned firms when choosing where to apply compared to Black-, Hispanicand Asian-owned firms.

The SBCS also found that small Black-owned firms reported more credit availability challenges or difficulties for expansion than White-owned firms, even among firms with revenues in excess of \$1M. Black-owned firm application rates for new funding were ten percentage points higher than White-owned firms; however, their approval rates were 19 percentage points lower. A similar but less pronounced gap existed between Hispanicand Asian-owned firms compared with White-owned firms. Of those approved for financing, only 40% of minority-owned firms received the entire amount sought compared to 68% of non-minority-owned firms, even among firms with comparably good credit scores.

Relative to financing approval, the SBCS found stark differences in loan approvals between minority-owned and White-owned firms. When controlling for other firm characteristics, approval rates from 2015 to 2016 increased for minority-owned firms and stayed roughly the same for non-

^{212.} *Id.* Forty-two percent of Black-owned firms, 21% of Asian-owned firms, and 24% of Hispanic-owned firms were smaller than \$100K in revenue size compared with 17% of White-owned firms.

^{213.} *Id*. at 3-4.

^{214.} *Id.* at 8-9; 11-12; 13; 15.

minority-owned firms. Hispanic- and Black-owned firms reported the highest approval rates at online lenders.²¹⁵

Low credit score and lack of collateral were the top reported reasons for denial of Black- and Hispanic-owned firms' applications. Satisfaction levels were lowest at online lenders for both minority- and non-minority-owned firms. A lack of transparency was cited as one of the top reasons for dissatisfaction for minority applicants and borrowers.

Forty percent of non-applicant Black-owned firms reported not applying for financing because they were discouraged (expected not to be approved), compared with 14% of White-owned firms. The use of personal funds was the most common action taken in response to financial challenges, with 86% of Black-owned firms, 77% of Asian-owned firms, 76% of White-owned firms, and 74% of Hispanic-owned firms using this as its source.

A greater share of Black-owned firms (36%) and of Hispanic-owned firms (33%) reported existing debt in the past 12 months of less than \$100,000, compared with 21% of White-owned firms and 14% of Asian-owned firms. Black-owned firms applied for credit at a higher rate and tended to submit more applications, compared with 31% of White-owned firms. Black-, Hispanic-, and Asian-owned firms applied for higher-cost products and were more likely to apply to online lenders compared to White-owned firms.

d. Business Location Impact²¹⁶

Controlling for other firm characteristics, minority-owned firms located in low-income minority zip codes reported better credit outcomes at large banks, compared with minority-owned firms in other zip codes. By contrast, at small banks, minority-owned firms located in low- and moderateincome minority zip codes experienced lower approval rates than minorityowned firms located in other zip codes.

e. Non-employer Firms²¹⁷

Non-employer firms reported seeking financing at lower rates and experienced lower approval rates than employer firms, with Black-owned nonemployer firms and Hispanic-owned non-employer firms experiencing the most difficulty. White-owned non-employer firms experienced the highest approval rates for new financing, while Black-owned non-employer firms experienced the lowest approval rates for new financing.

^{215.} The share of minority-owned firms receiving at least some financing was lower across all financing products, compared with non-minority firms.

^{216.} *Id.*at 17.

^{217.} *Id.* at 21.

3. The 2016 Report on Woman-Owned Businesses²¹⁸

The Report on Woman-Owned Businesses provides results from womanowned small employer firms where 51% or more of the business is owned by women. These data compared the experience of these firms compared with male-owned small employer firms.

a. Firm Characteristics: Woman-Owned Firms Start Small and Remain Small and Concentrate in Less Capital-Intensive Industries²¹⁹

The SBCS found that 20% of small employer firms were woman-owned, compared to 65% male-owned and 15% equally owned. Woman-owned firms generally had smaller revenues and fewer employees than male-owned small employer firms. These firms tended to be younger than male-owned firms.

Woman-owned firms were concentrated in less capital-intensive industries. Two out of five woman-owned firms operated in the healthcare and education or professional services and real estate industries. Male-owned firms were concentrated in professional services, real estate, and non-manufacturing goods production and associated services.²²⁰

b. Profitability Challenges and Credit Risk Disparities²²¹

Woman-owned firms were less likely to be profitable than male-owned firms. These firms were more likely to report being medium or high credit risk compared to male-owned firms. Notably, gender differences by credit risk were driven by woman-owned startups. Among firms older than five years, credit risk was indistinguishable by the owner's gender.

c. Financial Challenges During the Prior Twelve Months²²²

Woman-owned firms were more likely to report experiencing financial challenges in the prior twelve months: 64% compared to 58% of maleowned firms. They most frequently used personal funds to fill gaps and make up deficiencies. Similar to male-owned firms, woman-owned firms frequently funded operations through retained earnings. Ninety percent of

^{218.} https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-WomenOwnedFirms-2016.pdf.

^{219. 2016} SBCS, at 1-5.

^{220.} Non-manufacturing goods production and associated services refers to firms engaged in Agriculture, Forestry, Fishing, and Hunting; Mining, Quarrying, and Oil and Gas Extraction; Utilities; Construction; Wholesale Trade; Transportation and Warehousing (NAICS codes: 11, 21, 22, 23, 42, 48-49).

^{221.} *Id*. at 6-7.

^{222.} *Id*. at 8.

woman-owned firms relied upon the owner's personal credit score to obtain financing.

d. Debt Differences²²³

Sixty-eight percent of woman-owned firms had outstanding debt, similar to that of male-owned firms. However, woman-owned firms tended to have smaller amounts of debt, even when controlled for the revenue size of the firm.

e. Demands for Financing²²⁴

Forty-three percent of woman-owned firms applied for financing. Womanowned applicants tended to seek smaller amounts of financing even when their revenue size was comparable.

Overall, woman-owned firms were less likely to receive all financing applied for compared to male-owned firms. Woman-owned firms received a higher approval rate for U.S. Small Business Administration loans compared to male-owned firms. Low-credit, woman-owned firms were less likely to be approved for business loans than their male counterparts with similar credit (68% compared to 78%).

f. Firms That Did Not Apply for Financing²²⁵

Woman-owned firms reported being discouraged from applying for financing for fear of being turned down at a greater rate: 22% compared to 15% for male-owned firms. Woman-owned firms cited low credits scores more frequently than male-owned firms as their chief obstacle in securing credit. By contrast, male-owned businesses were more likely to cite performance issues.

g. Lender Satisfaction²²⁶

Woman-owned firms were most consistently dissatisfied by lenders' lack of transparency and by long waits for credit decisions. However, they were notably more satisfied with their borrowing experiences at small banks rather than large ones.

^{223.} *Id*. at 10.

^{224.} *Id.* at 16.

^{225.} *Id.* at 14.

^{226.} *Id*. at 26.

4. 2021 Report on Firms Owned by People of Color

a. Overview

The 2021 Report on Firms Owned by People of Color ²²⁷ compiles results from the 2020 SBCS. The SBCS provides data on small business perfor-

mance, financing needs, and decisions and borrowing outcomes.^{228,229} The Report provides results by four race/ethnicity categories: White, Black or African American, Hispanic or Latino, and Asian or Pacific Islander. For select key statistics, it also includes results for 4,531 non-employer firms, which are firms with no employees on payroll other than the owner(s) of the business.

Patterns of geographic concentration emerged among small business ownership by race and ethnicity. This was important given the progressive geographic spread of the novel coronavirus throughout 2020 and variations in state government responses to limit its spread. The Report found that 40% of Asian-owned small employer firms are in the Pacific census division, and another 28% are in the Middle Atlantic. Early and aggressive efforts by the impacted states may have affected the revenue performance of Asianowned firms in the aggregate given their geographic concentration. Blackand Hispanic-owned small employer firms are more concentrated in the South Atlantic region, which includes states with a mix of pandemic responses. For example, while Florida lifted COVID-19 restrictions relatively quickly, the South Atlantic includes states such as Maryland and North Carolina that maintained more strict guidelines.

The *Report* found that firms owned by people of color continue to face structural barriers in acquiring the capital, business acumen, and market access needed for growth. At the time of the 2020 SBCS – six months after the onset of the global pandemic – the U.S. economy had undergone a significant contraction of economic activity. As a result, firms owned by people of color reported more significant negative effects on business revenue, employment, and operations. These firms anticipated revenue, employment, and operational challenges to persist into 2021 and beyond. Specific findings are, as follows:

^{227.} https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/sbcs-report-on-firms-owned-by-people-of-color.

^{228.} The SBCS is an annual survey of firms with fewer than 500 employees.

^{229.} The 2020 SBCS was fielded in September and October 2020 and yielded 9,693 responses from small employer firms in all 50 states and the District of Columbia.

b. Performance and Challenges

Overall, firms owned by people of color were more likely than Whiteowned firms to report that they reduced their operations in response to the pandemic. Asian-owned firms were more likely than others to have temporarily closed and to have experienced declines in revenues and employment in the 12 months prior to the survey. In terms of sales and the supply chain, 93% of Asian-owned firms and 86% of Black-owned firms reported sales declines as a result of the pandemic. Relative to financial challenges for the prior 12 months, firms owned by people of color were more likely than White-owned firms to report financial challenges, including paying operating expenses, paying rent, making payments on debt, and credit availability. Black-owned business owners were most likely to have used personal funds in response to their firms' financial challenges. Nearly half of Black-owned firms reported concerns about personal credit scores or the loss of personal assets. By contrast, one in five White-owned firms reported no impact on the owners' personal finances. Asian-owned firms were approximately twice as likely as White-owned firms to report that their firms were in poor financial condition.

c. Emergency Funding

The *Report* finds that PPP loans were the most common form of emergency assistance funding that firms sought during the period. Black- and Hispanicowned firms were less likely to apply for a PPP loan. Only six in ten Blackowned firms actually applied. Firms owned by people of color were more likely than White-owned firms to report that they missed the deadline or were unaware of the program. Firms owned by people of color were less likely than White-owned firms to use a bank as a financial services provider. Regardless of the sources at which they applied for PPP loans, firms that used banks were more likely to apply for PPP loans than firms that did not have a relationship with a bank. While firms across race and ethnicity were similarly likely to apply for PPP loans at large banks, White- and Asianowned firms more often applied at small banks than did Black- and Hispanic-owned firms. Black-owned firms were nearly half as likely as Whiteowned firms to receive all of the PPP funding they sought and were approximately five times as likely to receive none of the funding they sought.

d. Debt and Financing

Black-owned firms have smaller amounts of debt than other firms. About one in ten firms owned by people of color do not use financial services.

On average, Black-owned firms completed more financing applications than other applicant firms. Firms owned by people of color turned more

often to large banks for financing. By contrast, White-owned firms turned more often to small banks. Black-owned applicant firms were half as likely as White-owned applicant firms to be fully approved for loans, lines of credit, and cash advances.

Firms owned by people of color were less satisfied than White-owned firms with the support from their primary financial services provider during the pandemic. Regardless of the owner's race or ethnicity, firms were less satisfied with online lenders than with banks and credit unions.

In the aggregate, 63% of all employer firms were non-applicants – they did not apply for non-emergency financing in the prior 12 months. Blackowned firms were more likely than other firms to apply for non-emergency funding in the 12 months prior to the survey. One-quarter of Black- and Hispanic-owned firms that applied for financing sought \$25,000 or less. In 2020, firms owned by people of color were more likely than White-owned firms to apply for financing to meet operating expenses. The majority of non-applicant firms owned by people of color needed funds but chose not to apply, compared to 44% of White-owned firms. Financing shortfalls were most common among Black-owned firms and least common among Whiteowned firms.

Firms of color, and particularly Asian-owned firms, were more likely than White-owned firms to have unmet funding needs. Just 13% of Black-owned firms received all of the non-emergency financing they sought in the 12 months prior to the survey, compared to 40% of White-owned firms. Blackowned firms with high credit scores were half as likely as their White counterparts to receive all of the non-emergency funding they sought.

e. Findings for Non-employer Firms

Non-employer firms, those that have no paid employees other than the owner, represent the overwhelming majority of small businesses across the nation. In all, 96% of Black- and 91% of Hispanic-owned firms are non-employer firms, compared to 78% of White-owned and 75% of Asian-owned firms.²³⁰

Compared to other non-employer firms, Asian-owned firms reported the most significant impact on sales as a result of the pandemic. They were most likely to report that their firm was in poor financial condition at the time of the survey.

Compared to other non-employer firms that applied for financing, Blackowned firms were less likely to receive all of the financing they sought.

^{230.} The Report notes that a future report will describe findings from the 2020 SBCS for non-employers in greater detail.

Black-owned non-employer firms that applied for PPP loans were less likely than other firms to apply at banks and more often turned to online lenders. Among PPP applicants, White-owned non-employer firms were twice as likely as Black-owned firms to receive all of the PPP funding they sought.

5. 2020 Small Business Administration Loans to African American Businesses

As detailed in a 2021 article published in the *San Francisco Business Times*,²³¹ the number of loans to Black businesses through the SBA's 7(a) program²³² decreased 35% in 2020.²³³ This was the largest drop in lending to any race or ethnic group tracked by the SBA. The 7(a) program is the SBA's primary program for financial assistance to small businesses. Terms and conditions, like the guaranty percentage and loan amount, vary by the type of loan. Lenders and borrowers can negotiate the interest rate, but it may not exceed the SBA maximum.²³⁴

Bankers, lobbyists, and other financial professionals attributed the 2020 decline to the impact of the PPP pandemic relief effort.²³⁵ The PPP loan program provided the source of relief to underserved borrowers through a direct incentive for small businesses to keep their workers on payroll.²³⁶ Approximately 5.2M PPP loans were made in 2020, as compared with roughly 43,000 loans made through the 7(a) program.

In a published statement to the *Portland Business Journal*, the American Bankers Association, an industry trade group, noted that the 2020 decline in SBA 7(a) loans to Black-owned businesses is not a one-year anomaly; it has been declining for years at a much faster rate than 7(a) loans to other borrowers. The 2020 data²³⁷ reveal that the number of SBA loans made annually to Black businesses has declined 90% since a 2007 peak, more than any other group

^{231.} SBA Loans to African American Businesses Decrease 35%, San Francisco Business Times (August 11, 2021) at: https://www.bizjournals.com/sanfrancisco/news/2021/08/11/sba-loans-to-african-american-businesses-decrease.html. Data were obtained through a Freedom of Information Act request.

^{232.} Section 7(a) of the Small Business Act of 1953 (P.L. 83-163, as amended).

^{233.} The total number of 7(a) loans declined 24%.

^{234.} The SBA caps the maximum spread lenders can charge based on the size and maturity of the loan. Rates range from prime plus 4.5% to prime plus 6.5%, depending on how much is borrowed.

^{235.} The Coronavirus Act, Relief, and Economic Security Act ("CARES Act"), required the SBA to issue guidance to PPP lenders to prioritize loans to small businesses owned by socially and economically disadvantaged individuals including Black-owned businesses. *See* 116-136, §1, March 27, 2020, 134 Stat. 281.

^{236.} PPP loans were used to help fund payroll costs, including benefits, and to pay for mortgage interest, rent, utilities, workers protection costs related to COVID-19, uninsured property damage costs caused by looting or vandalism during 2020 as well as certain supplier costs and operational expenses.

^{237.} The SBA denied the original request for information; however, the publication prevailed on appeal.

tracked by the SBA. In that interval, the overall number of loans decreased by 65%.

The nation's four largest banks (JP Morgan Chase, Bank of America, Citigroup, and Wells Fargo), which hold roughly 35% of national deposits, made 41% fewer SBA 7(a) loans to Blacks in 2020.²³⁸

PPP loans served as a lifeline during the pandemic for millions of businesses. However, industry experts maintained that PPP loans detracted from more conventional SBA lending efforts that year. Wells Fargo provided more than 282,000 PPP loans to small businesses nationwide in 2020, with an average loan size of \$50,000. Wells Fargo, the most active lender for Black-owned businesses nationwide in 2020, saw its SBA loans to Blacks drop from 263 in 2019 to 162 in 2020. Bank of America, Chase, and Citigroup also reported fewer SBA loans to African American businesses in 2020.

While PPPs have been heralded for providing needed monies to distressed small and mid-size businesses, data reveals disparities in how loans were distributed.²³⁹ An analysis in 2020 by the *Portland Business Journal*, found that of all 5.2M PPP loans, businesses in neighborhoods of color received fewer loans and delayed access to the program during the early critical days of the pan-

demic.²⁴⁰ More recent analysis released by the Associated Press indicates that access for borrowers of color improved exponentially during the later rounds of PPP funding, following steps designed to make the program more accessible to underserved borrowers.

a. 2010 Minority Business Development Agency Report²⁴¹

The 2010 Minority Business Development Agency Report, "Disparities in Capital Access Between Minority and non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs", summarizes results from the Kauffman Firm Survey, data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program and additional extensive research on the effects of discrimination on opportunities for minority-owned firms. The report found that:

^{238.} Data obtained by the Business Journal does not include information from lenders who made less than ten loans in 2020.

^{239.} While PPP loans are administered by the SBA, they are disbursed primarily through banks.

^{240.} Many industry experts have observed that businesses that already had strong relationships with lenders were the most successful in accessing PPP loans. The nation's long history of systemic racism in banking fostered disparities in PPP loan distribution. See Alicia Plerhoples, Correcting Past Mistakes: PPP Loans and Black-Owned Small Businesses, at https://www.acslaw.org/expertforum/correcting-past-mistakes-ppp-loans-and-black-owned-small-businesses/.

^{241.} Robert W. Fairlie and Alicia Robb, Disparities in Capital Access Between Minority and non-Minority Businesses: The Troubling Reality of Capital Limitations Faced by MBEs, Minority Business Development Agency, U.S. Department of Commerce, 2010 ("MBDA Report"))https://archive.mbda.gov/sites/mbda.gov/files/migrated/files-attachments/ DisparitiesinCapitalAccessReport.pdf).

low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner's wealth can be invested directly in the business, used as collateral to obtain business loans or used to acquire other businesses.²⁴²

It also found, "the largest single factor explaining racial disparities in business creation rates are differences in asset levels."²⁴³

Some additional key findings of the Report include:

- *Denial of Loan Applications*. Forty-two percent of loan applications from minority firms were denied compared to 16% of loan applications from non-minority-owned firms.²⁴⁴
- Receiving Loans. Forty-one percent of all minority-owned firms received loans compared to 52% of all non-minority-owned firms. MBEs are less likely to receive loans than non-minority-owned firms regardless of firm size.²⁴⁵
- *Size of Loans*. The size of the loans received by minority-owned firms averaged \$149,000. For non-minority-owned firms, loan size averaged \$310,000.
- Cost of Loans. Interest rates for loans received by minority-owned firms averaged 7.8%. On average, non-minority-owned firms paid 6.4% in interest.²⁴⁶
- Equity Investment. The equity investments received by minorityowned firms were 43% of the equity investments received by nonminority-owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43% of the average of new equity investments in non-minority-owned firms. The differences were even larger for loans received by high sales firms.²⁴⁷

240. *Id*. 247. *Id*.

^{242.} *Id.* at 17.

^{243.} *Id.* at 22.

^{244.} *Id*. at 5. 245. *Id*.

^{245.} *Id*. 246. *Id*.

b. Federal Reserve Board Surveys of Small Business Finances

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for years 1993, 1998 and 2003.²⁴⁸ These Surveys of Small Business Finances are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than White-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive.²⁴⁹

6. Other Reports

- Dr. Timothy Bates found venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.²⁵⁰
- According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their own firms were about 18% lower in the first year of operations compared to those of non-minorityowned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their own firms were about 36% lower compared to those of non-minority-owned firms.²⁵¹
- Another study by Fairlie and Robb found minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses.²⁵²

^{248.} https://www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm. These surveys have been discontinued. They are referenced to provide some historical context.

^{249.} See Blanchflower, D. G., Levine. P. and Zimmerman, D., "Discrimination In The Small Business Credit Market," Review of Economics and Statistics, (2003); Cavalluzzo, K. S. and Cavalluzzo, L. C. ("Market structure and discrimination, the case of small businesses," Journal of Money, Credit, and Banking, (1998).

^{250.} See Bates, T., "Venture Capital Investment in Minority Business," Journal of Money Credit and Banking 40, 2-3 (2008).

^{251.} Fairlie, R.W. and Robb, A., Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States, (Cambridge: MIT Press, 2008).

^{252.} Fairlie, R.W. and Robb, A., Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States, (Cambridge: MIT Press, 2008).

E. Evidence of Disparities in Access to Human Capital

There is a strong intergenerational correlation with business ownership. The probability of self-employment is significantly higher among the children of the selfemployed. A generational lack of self-employment capital disadvantages minorities, whose earlier generations were denied business ownership through either *de jure* segregation or *de facto* exclusion.

There is evidence that current racial patterns of self-employment are in part determined by racial patterns of self-employment in the previous generation.²⁵³ Black men have been found to face a "triple disadvantage" in that they are less likely than White men to: 1. Have self-employed fathers; 2. Become self-employed if their fathers were not self-employed; and 3. To follow their fathers into self-employment.²⁵⁴

Intergenerational links are also critical to the success of the businesses that do form.²⁵⁵ Working in a family business leads to more successful firms by new owners. One study found that only 12.6% of Black business owners had prior work experiences in a family business as compared to 23.3% of White business own-

ers.²⁵⁶ This creates a cycle of low rates of minority ownership and worse outcomes being passed from one generation to the next, with the corresponding perpetuation of advantages to White-owned firms.

Similarly, unequal access to business networks reinforces exclusionary patterns. The composition and size of business networks are associated with self-employment rates.²⁵⁷ The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.²⁵⁸ Minorities and women in our interviews reported that they felt excluded from the networks that help to create success in their industries.

F. Conclusion

The economy-wide data, taken as a whole, paint a picture of systemic and endemic inequalities in the ability of firms owned by minorities and women to

^{253.} Fairlie, R W., "The Absence of the African-American Owned Business, An Analysis of the Dynamics of Self-Employment," *Journal of Labor Economics*, Vol. 17, 1999, pp 80-108.

^{254.} Hout, M. and Rosen, H. S., "Self-employment, Family Background, and Race," *Journal of Human Resources*, Vol. 35, No. 4, 2000, pp. 670-692.

Fairlie, R.W. and Robb, A., "Why Are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital," *Journal of Labor Economics*, Vol. 24, No. 2, 2007, pp. 289-323.
 Id.

^{257.} Allen, W. D., "Social Networks and Self-Employment," *Journal of Behavioral and Experimental Economics (formerly The Journal of Socio-Economics)*, Vol. 29, No. 5, 2000, pp. 487-501.

^{258. &}quot;Increasing MBE Competitiveness through Strategic Alliances" (Minority Business Development Agency, 2008).

have full and fair access to the City's contracts and associated subcontracts. This evidence supports the conclusion that absent the use of narrowly tailored contract goals, the disparate economy-wide impacts experienced by M/WBEs exacerbate unequal access to contracting opportunities.

VI. QUALITATIVE EVIDENCE OF RACE AND GENDER BARRIERS IN THE CITY OF AUSTIN'S MARKET

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities. This evidence is relevant to the question of whether despite the successful operations of the City's MBE/WBE Program, MBEs/WBEs continue to face discriminatory barriers to their full and fair participation in City opportunities. Anecdotal evidence also sheds light on the likely efficacy of using only race- and gender-neutral remedies designed to benefit all small contractors to combat discrimination and achieve the objectives of the City's MBE/WBE Program. As discussed in the Legal Chapter, this type of anecdotal data has been held by the courts to be relevant and probative of whether an agency continues to have a need to use narrowly tailored MBE and WBE contract goals to remedy the effects of past and current discrimination and create a level playing field for contract opportunities for all firms.

The Supreme Court has held that anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life."²⁵⁹ Evidence about discriminatory practices engaged in by prime contractors, agency personnel, and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects.²⁶⁰ The courts have held that while anecdotal evidence is insufficient standing alone, "[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative."²⁶¹ "[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases;

^{259.} International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

^{260.} Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1168-1172 (10th Cir. 2000), cert. granted, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001).

^{261.} Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513, 1120, 1530 (10th Cir. 1994).

indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough."²⁶²

There is no requirement that anecdotal testimony be "verified" or corroborated, as befits the role of evidence in legislative decision-making, as opposed to judicial proceedings. In finding the State of North Carolina's Historically Underutilized Business program to be constitutional, the court of appeals opined that "[p]laintiff offers no rationale as to why a fact finder could not rely on the State's 'unverified' anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not—indeed cannot—be verified because it is nothing more than a witness' narrative of an incident told from the witness' perspective and including the witness' perception."²⁶³ Likewise, the Tenth Circuit held that "Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver's witnesses or to relate their own perceptions on discrimination in the Denver construction industry."²⁶⁴

To explore this type of anecdotal evidence of possible discrimination against minorities and women in the City's geographic and industry markets and the effectiveness of its current race-conscious and race-neutral measures, we conducted 22 small group and individual business owner and stakeholder interviews, totaling 199 participants. We also received written comments. We met with a broad cross section of business owners from the City's geographic and industry markets. Firms ranged in size from large, long established prime contracting and consulting firms to new market entrants. We sought to explore their experiences in seeking and performing public sector prime contracts and subcontracts with the City of Austin, other government agencies, and in the private sector. We also elicited recommendations for improvements to the City's MBE/WBE Program.

CHA conducted extensive outreach to maximize participation and input from relevant businesses in the Austin contracting community.

• We engaged stakeholder groups representing relevant businesses to both solicit their input and to enlist their assistance in reaching their member firms. These included stakeholder organizations, trade associations, community groups and other entities to encourage participation. Over 75 advocacy organizations and industry groups in and around Austin were solicited as part of CHA's outreach plan. These organizations included the Asian Contractor Association, the Austin Area Black Contractor's Association, the U.S. Hispanic Contractors Association, the Austin Chapter of the National Association of Women in Construction, the

^{262.} Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895, 926 (11th Cir. 1997).

^{263.} *H.B. Rowe Co., Inc. v. Tippett,* 615 F.3d 233, 249 (4th Circ. 2010).

^{264.} *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (2003).

Austin LGBT Chamber of Commerce, the American Institute of Architects, the Associated General Contractors of Texas, and numerous chambers of commerce. These organizations were contacted by telephone and through email multiple times during the study period. This included CHA personalized emails to organization executives and staff asking for assistance in encouraging their members to participate in the study. CHA also conducted two focus group interviews to which all seventy-five groups were invited. Twenty-nine people participated in these two interviews.

- Our three, highly experienced local subcontractors attended over 10 events and meetings hosted by stakeholder organizations to present information about the study and encourage the organization's members to provide feedback about their experiences. Presentations were made at events hosted by the Southwest Minority Supplier Development Council, the Greater Austin Black Chamber of Commerce, the NAACP Austin Chapter, the Texas Society of Professional Engineers, the Austin Society of Civil Engineers and the American Council of Engineering Companies.
- Our local subconsultants made over 500 calls and sent numerous follow up emails to relevant firms encouraging participation in the business owner interviews.
- We actively sought input from the MBE/WBE and Small Business Enterprise Procurement Program Advisory Committee. Two group and one individual interview were conducted with Committee members. All eight Committee members were interviewed.
- We developed social media content with information about how to participate in the study for organizations to post to their social media platforms and newsletters.
- We drafted a newsletter article that could be used for online or print newsletters. The article provided information about the study, along with ways that firms could participate.
- We developed a Frequently Asked Questions sheet that was regularly disseminated to stakeholder organizations and firms in the Austin contracting community to inform them of where, when and how to participate in the study and share their experiences.
- We created a dedicated website that collected feedback and provided information about the study and how firms could participate.

Many minority and woman owners reported that while some progress has been made in integrating their firms into public and private sector contracting opportunities through race- and gender-conscious contracting programs like the City's, significant barriers on the basis of race and/or gender remain. In addition to the group interviews, we conducted an electronic survey of firms in the City's market area about their experiences in obtaining work, marketplace conditions and the City's MBE/WBE program. One-hundred and ninety-eight minority and female recipients responded to the survey. The results were similar to those of the interviews. Among minority- and woman-owned firms, a little over a quarter (25.5%) reported that they still experience barriers to equal contracting opportunities; 27.5% said their competency was questioned because of their race or gender; and almost a fifth (17.4%) indicated they had experienced job-related sexual or racial harassment or stereotyping.

A. Business Owner Interviews

The following are summaries of the issues discussed. Quotations are indented and may have been shortened for readability. The statements are representative of the views expressed over the many sessions and by numerous participants.

Appendix E contains anecdotal information from the recent disparity studies conducted by Colette Holt & Associates for various Texas governments. Although not dispositive, these reports corroborate the barriers faced by minorities and women in the Austin area marketplace.

1. Discriminatory Attitudes and Negative Perceptions of Competence

Many minority and woman interview participants reported that they still encounter biases, stereotypes and negative assumptions about their qualifications and competency.

There is a negative connotation out there with MBE or WBE firms that they're not as qualified. I was actually on a conversation about two weeks ago with a prime firm. And they're talking about how they had too many MBE or DBE firms on their team, and it was going to drag their team down during the interview. And so, it wasn't just, that they had too many partners. It was that they were MBE or DBE firms. So that is definitely out there. And a lot of people do see it as like, "Oh, I have to do this, because, the City is making me. Not that I want to do this, because these are good people to work with or they're good firms. So, there definitely is negative connotation out there towards minority-owned businesses.

[The prime contractors] start to refer to me as the "diversity firm". So, they're like, "Who's the diversity firm?" And then they

proceed to talk about me as though I'm not in the room and sort of you're just here because we have to do this.

You just have to prove yourself over and over and over again.... [Prime contractors are] like, "Oh, another minority company. Like, I have to work with you." And then you're a chick. And like, "do you know what you're doing?".

I am so visible and I'm so public and you still don't quite understand that I'm the decision maker. And I've been in one of my buildings where the tenant is there and she happens to be a White woman and people are asking her, "can I help them?" And so, it's contractors and just everyone. And so, I've had that experience again, being as visible. And so, it's jarring for me because if I'm as visible as I am, and I have that experience, I can't imagine someone who's not as visible what they're going through.

Several owners reported that being certified as an MBE/WBE often carries a stigma.

We have been advised many times to mention towards the end of our proposal, that we're a HUB and not to ever put that at the front, because we will be discounted.

I am an African-American woman founder, and I struggle with whether or not I want to identify myself as a Black business.

[There is] a stigma on [being certified] that we suck.

[The Program] allowed us to have experience working with larger firms and working on larger projects. It's like a two-sided thing now, that was the good side. It's given us all this experience and been able to work on really some fantastic projects. But at the same time, there is that stigma.... You're just a WBE firm.

I do think that there's a stigma, whether or not they actually say it to your face is another thing. Sometimes with certain [type of] supply places I'll catch it, but I just don't do business with them anymore. But yeah, I do think that the stigma still exists, I think that people just don't necessarily say it to your face as much.

We have a bad rep out there.

One construction firm owner believed poor treatment was part of functioning as a subcontractor.

It's real hard to prove if anything negative has been done against me from a racial perspective. I think it's more they know they can shit on a sub.

2. Exclusion from Industry Networks

Many M/WBEs found it difficult to penetrate the industry networks necessary for entrepreneurial success.

People do business with people that they know and that they trust halfway. And if they don't know you, or you're just a quote on a fax machine or an email quote, there's no relationship there, okay. And then even if they use you ... they'll shuck and jive you and put you through all these hoops and whatnot and everything, because there is no relationship there.

Especially in engineering, it's very, very heavily White male dominated.

There is still, I believe, a barrier to even just being invited to the networking events or, if you're going to a conference and somebody is hosting a kind of cocktail hour, because if you don't already know those people, you're not already in those clubs, it's a little bit hard to get those invites and know where those places are where potentially a lot of good networking is out there.

The hardest part is that you have these goals and it's not across the board, but you have to prove yourself. You have to be a great company regardless of minority or not minority. And the minority situation is a great ticket into the ball game, [which is] a very closed network.

When City staff made the efforts to develop relationships with certified firms, there were positive outcomes.

My experience with getting contracts with Austin Energy was very good. And I think that's because I had a chance to actually meet with key people inside of Austin Energy. I had a chance to have meetings with them, go sit down with them, talk to them about my business, and stuff like that. So, I think too, having a good relationship does help.

3. Gender Bias and Hostile Work Environments

Several women, especially in construction, had experienced sexist attitudes and behaviors.

It's usually more of the smaller [construction firms], but especially if I go into a place where they're putting in a [project], they don't necessarily believe that I understand what I'm talking about..... I can say it, and then I can have whoever the male beside me is say it and it'll be like, "Oh, okay. Yeah, yeah, we got that." I'm like, "yeah." It's something that I think a lot of us have learned to deal with, but it's shockingly still very prevalent. I don't know how prevalent it is everywhere, but definitely in our industry.

Recently, I was on a job. It was actually our job [as the prime contractor]. And we brought this sub in and I walked up to the owner, and he was just awful to me. He just was very condescending and threatened to walk off the job and you know, "you're not going to talk to me like this" and "you're going to nitpick" because it was our responsibility that he did his job properly. And when I walked in, his whole attitude changed from when my guys were talking to him. And then he and I got into it because I'm now used to this, but it's still, it never is fun.

[Construction is] a male very much dominated industry, so to have that certification is really, really important.

Professional opportunities were sometimes explicitly denied because of gender.

When I was in consulting and there was a situation where, "Okay, I don't have an office, but we can meet at lunch and talk about the services I can provide, and what projects you're looking for." And so, it took a while and we scheduled a meeting and then a day before the meeting, he said, "Sorry, I can't meet with you in public without my wife." He didn't actually say a religious belief. He just said, "I won't go out to lunch with a woman out of respect for my wife."

A man in the construction industry confirmed that women continue to suffer harassment.

As a man, yeah, it happens. With the minorities I don't know a lot, but with women, for sure. In construction there's a lot of men outside, and it happens. I have to make rules with my

employees, I have to shut them up, tell them to stop looking. You have to talk to them kind of tough and learn not to say anything. And we made up a three second rule, you look one two three and then turn around.

A more senior woman felt that gender bias has lessened since she entered the business world.

Today, what I've seen is women are being taken more seriously.

4. Barriers to Access to Capital

One firm owner had directly experienced racial barriers in accessing business financing.

I couldn't get equal access to financing for a long time. And in 2009, I hired a White man to be our controller. And after that, we didn't have any problems getting financing. It was like night and day.

B. Anecdotal Survey of Austin Area Firms

To supplement the in-person interviews, we also conducted an anecdotal, electronic survey of firms on our Master M/W/DBE Directory; prime firms on the contract data file; and firms identified through our outreach efforts. We further solicited written comments. The survey was comprised of up to 45 closed- and open-ended questions and replicated the topics discussed in the business owner interviews. Questions focused on doing business in the City's market area, specifically barriers and negative perceptions, access to networks, information and experiences in obtaining work, and capacity development, as well as the City's MBE/ WBE Program.

The survey was emailed to 4,131 firm representatives and owners, six times from February 23, 2021, to March 29, 2021. The survey was also distributed by key industry associations and woman and minority business advocacy organizations in April 2021. Telephone follow-up was conducted to encourage firms to complete the survey and stimulate responses. The response period closed on May 12, 2021.

Two-hundred and ninety-six gross responses were received. After accounting for incomplete and non-relevant responses, usable responses equaled 198 for a net response rate of 4.8%. One-hundred and forty-nine minority- and woman-owned firms and 49 publicly held and non- MBEs/WBEs/DBEs completed the survey. This represents a 3.6% net response rate among minority- and woman-owned firms and a 1.2% net response rate for publicly held and non- MBEs/WBEs/DBEs.²⁶⁵

1. Respondents' Profiles

Table 6-1. The race and gender distribution of MBE/WBE/DBE survey respondents is listed below.

Firm Ownership	Construction	Construction Related Services (includes Professional Services)	Services & Commodities	Total
African American	9	2	17	28
Hispanic	7	12	30	49
Asian Pacific/Subcontinent Asian American	1	4	11	16
Native American/Alaska Native	1	0	2	3
Non-Minority Women	5	9	39	53
DBE Total	23	27	99	149
Publicly Held, Non-M/W/DBE Total	22	11	16	49
Respondents Total	45	38	115	198

Table 6-1: Distribution of race and gender of survey respondents

Chart 6-1: Construction firms accounted for 15.4%, construction-related services firms for 18.1%, and services and commodities for 66.4% of the responses.

^{265.} Percentage results have been rounded to one decimal place to increase readability.

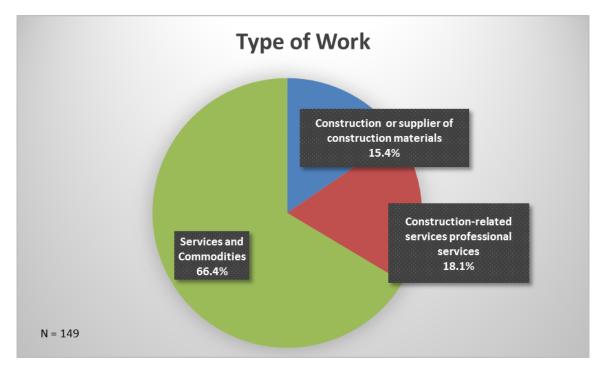


Chart 6-1: Respondent Type of Work

Chart 6-2: Among MBEs/WBEs/DBEs, 20.1% of the firms had worked on City of Austin projects only as a prime contractor or consultant; 27.5% had worked only as a subcontractor; 16.8% had worked as both a prime contractor or consultant and as a subcontractor or subconsultant; and 35.6% had not done business with the City. Three quarters (74.5%) of minority- and woman-owned firms responding were certified with the City of Austin. Almost three-quarters (73.2%) were certified with other government agencies, primarily the Historically Underutilized Business certification by the State of Texas.

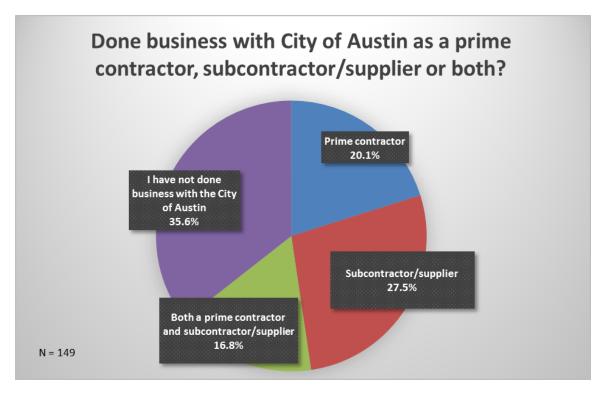


Chart 6-2: Respondent Contractor Status with the City of Austin

2. Discriminatory Attitudes and Negative Perceptions of Competence

Chart 6-3: A little over one quarter (25.5%) of the respondents reported that they experienced barriers to contracting opportunities based on their race and/or gender.

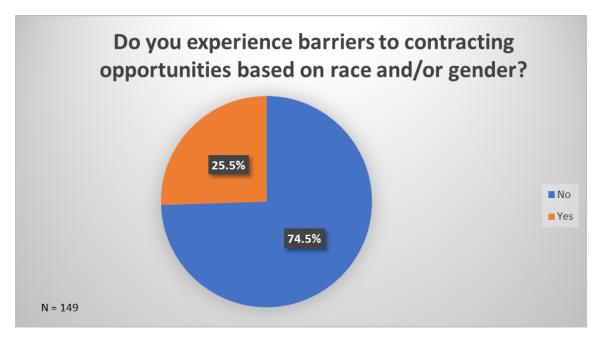


Chart 6-3: Barriers to Contracting Opportunities Based on Race and Gender

Chart 6-4: Over one quarter (27.5%) answered yes to the question "Is your competency questioned based on your race and/or gender?".

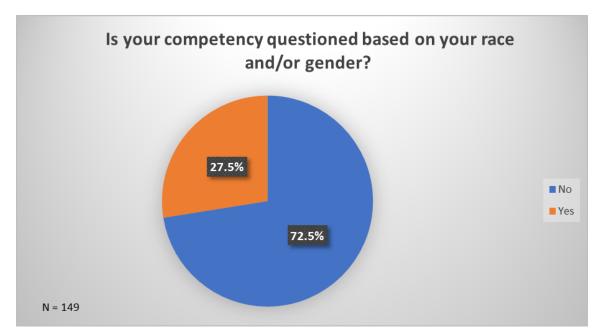


Chart 6-4: Negative Perception of Competency Based on Race or Gender

Chart 6-5: Almost one fifth (17.4%) indicated that they experience job-related sexual or racial harassment or stereotyping.

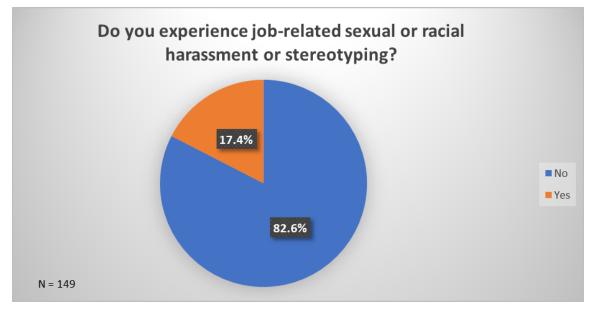
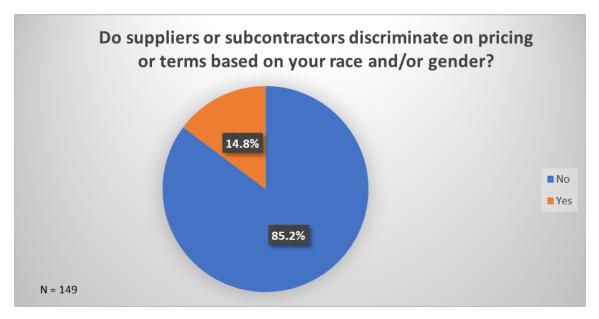


Chart 6-5: Industry-Related Sexual or Racial Harassment or Stereotyping

Chart 6-6: Discrimination from suppliers or subcontractors because of their race and/or gender was experienced by 14.8%.

Chart 6-6: Supplier Pricing and Terms Discrimination Based on Race and Gender



3. Exclusion from Industry Networks

Chart 6-7: Over one quarter (26.2%) of minority and woman respondents reported that they did not have equal access to the same information as non-certified firms in their industry.

Chart 6-7: Access to the Same Information as Non-Certified Firms

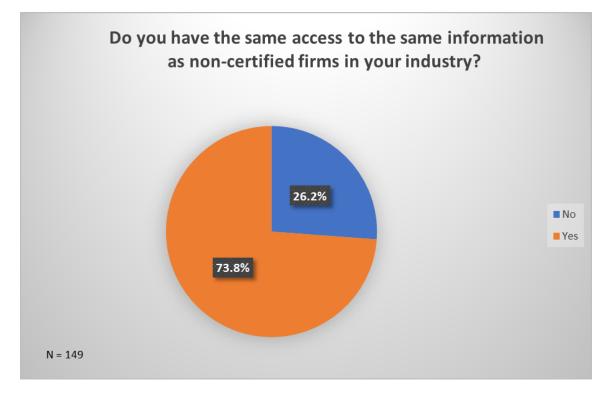


Chart 6-8: Only 18.8% of minority and woman respondents indicated that they have access to informal and formal networking information.

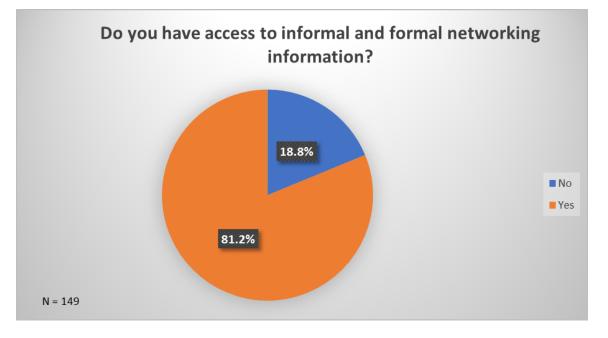


Chart 6-8: Access to Informal and Formal Networking Information

4. Access to Financial Supports

Chart 6-9: Among MBEs/WBEs/DBEs, 8.1% reported challenges in their efforts to obtain bonding. In comparison, none of the non-MBEs/WBEs/DBEs reported difficulty with obtaining bonding.

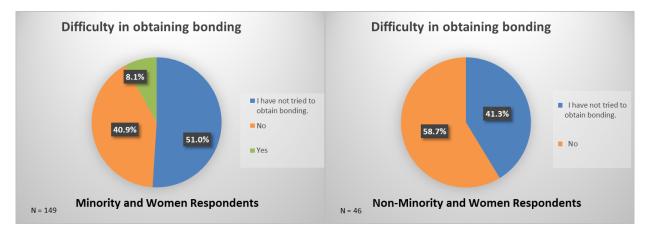


Chart 6-9: Barriers to Obtaining Bonding

Chart 6-10: Almost a quarter (23.5%) of minorities and women reported experiencing barriers in their efforts to obtain financing and loans. In comparison, only 2.2% of non-minority firms reported such difficulties.



Chart 6-10: Barriers to Obtaining Financing and Loans

Chart 6-11: Among minority and woman respondents, 10.1% reported experiencing barriers to obtaining insurance. Less than three percent of non-MBEs/WBEs/DBEs reported such difficulties.

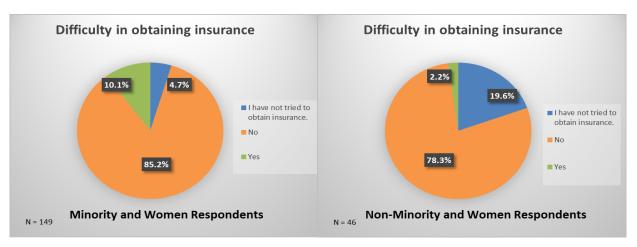


Chart 6-11: Barriers to Obtaining Insurance

5. Obtaining Work on an Equal Basis

Chart 6-12: Over half of MBEs/WBEs/DBEs (55.0%) reported that they are solicited for City or government projects with MBE, WBE or DBE goals.

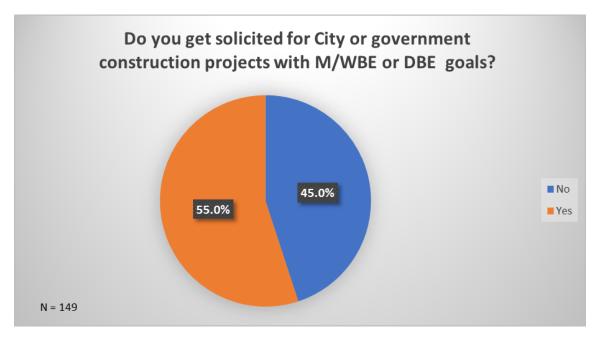
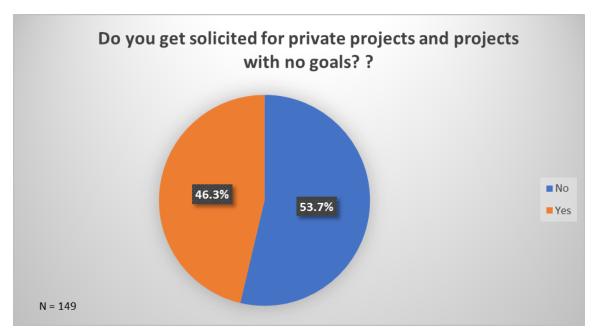


Chart 6-12: Solicitation for City or Government Construction Projects with MBE, WBE or DBE Goals

Chart 6-13: Fewer respondents, 46.3%, reported that they are solicited for private projects and projects without goals.

Chart 6-13: Solicitation for Private Projects and Projects Without Goals



6. Capacity for Growth

Chart 6-14: A majority of MBEs/WBEs (59.1%) reported that their firm's contract size was below the amount they are qualified to perform.





Chart 6-15: More than three quarters (77.2%) of minority and female respondents reported they could take on up to 75% more work if it were available. A fifth (20.2%) reported their firm could double or increase its amount of work by more than 75%.

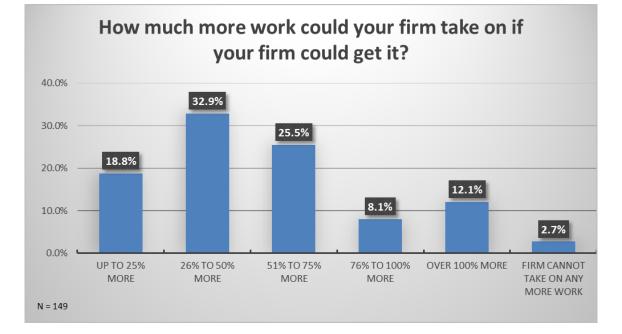


Chart 6-15: Capacity for More Work

7. Prompt Payment

Chart 6-16: Of the contractors who reported doing work for the City, 61.8% said that the City paid them promptly. Prime contractors were reported to pay more slowly. A little over 50% (51.9%) of those doing work for prime contractors said prime contractors paid promptly within 30 days.

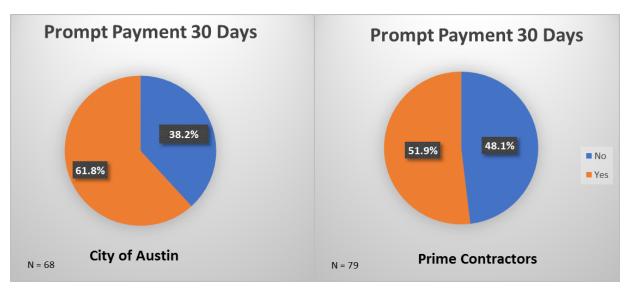


Chart 6-16: Prompt Payment within 30 Days

Chart 6-17: Of contractors performing work for the City, 82.4% reported receiving payment within 60 days; 10.8% were paid within 90 days; and 6.8% were paid in 120 days or later. Prime vendors were reported to pay on a slower schedule. A little over three quarters (77.2%) said prime vendors paid within 60 days; 16.5% reported they were paid within 90 days; and 6.3% reported they were paid within 120 days or later.

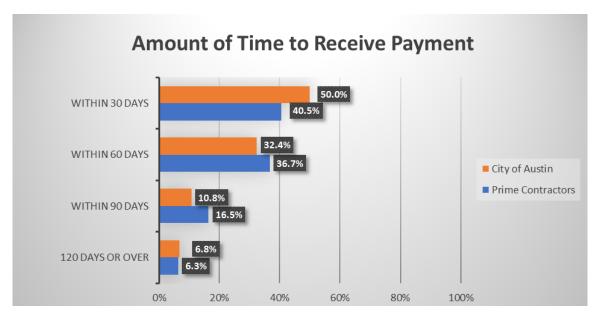


Chart 6-17: Amount of Time to Receive Payment

8. Capacity Development and Participation Incentives

Chart 6-18: Almost one quarter (23.5%) of minority and woman respondents reported participating in at least one type of MBE/WBE or DBE business support or development activity; 76.5% indicated they had not participated in any of these programs.

- 7.4% had participated in financing or loan programs.
- 3.4% had accessed bonding support programs.
- 8.1% had received support services such as assistance with marketing, estimating, information technology.
- 13.4% had joint ventured with another firm.
- 10.7% had participated in a mentor-protégé program.

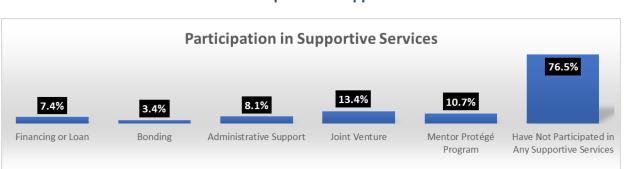


Chart 6-18: Participation in Supportive Services

C. Written Survey Responses

The survey also included open-ended response questions. These responses were consistent with information provided in the business owner interviews and close-ended questions. Responses to these questions have been categorized and are presented below.

1. Systemic Racial Exclusion

Many minorities reported that fair opportunities to compete for contracts were not available because of systemic racial barriers.

[I have experienced] every systematic racial barrier that all minorities endure.

Limited opportunities based on race.

Racial barriers. It is never an even playing field period.

Panels of inquiry or qualification are overwhelmingly European American or of white privilege.

I don't spin out any more about this [discriminatory barriers]. It cost me too much in the past. I nearly sank and had to regroup a couple years ago.

Companies 100% Hispanic have trouble to get access to resources and opportunities.

2. Discriminatory Attitudes and Negative Perceptions of Competence

Many minority and woman respondents reported instances of implicit bias and subtle discriminatory attitudes that affect their ability to obtain contracting work. Their credentials and competency are routinely questioned.

I am a female who knows what I am providing and I am constantly being questioned... I have worked and actually know what I am doing. I have to constantly remind these people (99% white males) to look at my resume.

A customer questioned my technical background, suggesting I wasn't qualified to attend a technical conference.

[Questioning of my] competency starts from being black period.

Like I don't know what I'm talking about.

I feel like we are not taken very seriously even though we make products that make the job safer for the worker.

This [questioning of my competency] is happening every single day.

All the time [my competency is questioned].... Now I stick with the same people I have worked with in the past to avoid all the drama.

You are judged from onset.

In the past 17 years of existence our competency has always been questioned based on the type services we provide.

Seems like every day [my competency is questioned].

Too many times to list [when my competency has been questioned].

Too many [times], too long of a time [my competency has been questioned].

I don't have any white customers, none, zero. In 6 years, I have had less than 5% of my customers to be white, it is fine, however, I do believe it is interesting.

I am an African American, female business owner. Based on the racial climate in our country I am sure I have been judged and excluded from opportunities because of my sex and race.

It's often subtle - someone else undercutting something when I say it, but if a male colleague speaks up, the idea isn't met with resistance, etc.

We [have not won] many contracts, that were not given to us probably because decision makers thought our competency was [questionable] based on our race.

I may be [discriminated against], I just don't know.

It [the questioning of my competency] is never spoken, just assumed.

Many minority respondents relayed instances of stereotypical assumptions and attitudes on the basis of race.

I overheard people in the next room suggesting that I shoot for Chinese Architectural Digest because I am an American Asian. There is no Chinese Architectural Digest. I've had architects denigrate me while I am portraying their work for a third party, then act surprised and impressed when they see the finished images.

Most Caucasian employers see Hispanics as labor workers only, [they] do not see us as a relevant workforce on arts, science and/or [as] entrepreneurs.

The White male on the team is often assumed to be in charge.

Example: If there is an employer asking for design and or leadership role, who's in charge kind of deal, and beside me there is a Caucasian person, the employers tend to ask him and assume he is in charge before even asking me who I am, even though he is my helper. This has happened multiple times.

Many minority- and woman-owned firms felt that they had to work harder and are held to a higher standard than their non-minority male counterparts.

Minority firms are held to a different performance standard. This has actually helped us because we always follow the book so the performance is not an issue if you know that going in.

Asked to provide more and do more for less than white colleagues.

It's hard to say, but I do think that as a woman, I have to fight harder to win bids, etc.

Held to different performance standard than white peers.

Several owners felt that being certified as an M/W/BE carries a stigma.

We have run into larger firms who think small DBE/HUB firms do not do good work. Often larger firms are scared to do business with small DBE firms due to this stereotype.

There is definitely a stigma to being known as a WBE (or MBE) firm. Certification definitely helps with getting public projects, but actually can be viewed as a negative in the private sector.

Most people involved in contracting award think certified firms are less qualified and competent based on the firm owner's race and/or gender.

Some respondents noted that it can be difficult, if not impossible, to know whether they had been subjected to discrimination.

It's hard to pinpoint about race/gender because it's always so subtle and automatic - unconscious bias. But I have yet to get a contract. I have given up getting one, so I haven't been applying.

It [discriminatory behavior] is deep and very systematic. You cannot know what is going on because it is deep.

I am not aware of any obvious discrimination, but that does not mean it does not exist.

I am probably blind to many of them [discriminatory behaviors] - so consider this a "false negative" reply - I do not know what I do not know.

3. Gender Bias and Barriers

Regardless of their industry, many women reported that stereotypical assumptions about their role and authority are common.

Sometimes I feel that construction owners do not believe I can do the job and choose male contractors.

Males, even the minority ones, seem to get a lot more contracts than females. Being WOC I feel I am more at a disadvantage.

My name looks male, along with my engineering background, have been in business situations where I was the only female mistakenly invited because they didn't know I was female.

We are just not taken seriously as women.

Being a woman, I am viewed as not being able to lift 50-pound bags of flour or work long hours and move as quickly as a man in the food industry.

I am a middle-aged woman in tech and I am often talked down to by younger male acquaintances who do not believe I have such a deep level of expertise.

As an arborist, I'm regularly asked if I'm helping my husband and have people ask for sources for information that I give while accepting the word of the male arborists.

It is [stereotyping] not as bad now that I am older and have more confidence in saying something. But, [I] definitely experienced more [of this] when I was younger and afraid to say something.

I'm a woman working in a male dominated industry.

Once people see us in action this [stereotyping] typically ends, but all women are looked at with skepticism when promoting their business skills.

[Stereotyping] only when working with older white men.

One respondent thought that Hispanic women experience greater barriers than White or Black women.

White women are preferred. Hispanic women are paid less than White and Black women.

Some woman owners reported overt instances of sexual harassment or demeaning behavior.

I have had requests for sexual relationships from both male and female prospective clients. I have also experienced inappropriate touching from a client.

Gender, usually. Some males in construction related work, including males employed by the government agency, by the general contractors, and by subcontractors of other trades, will posture themselves physically and verbally in front of other males to question females on our team performing the work in an effort to make it appear we do not know what we are doing.

"She has not worked in this construction/frontline environment before so I will not listen."

Good ol' boys' club mentality that includes beginning comments with "honey" and comments such as "maybe this isn't a good fit for your type of company" - each spoken by different males to female employees on our staff.

One Asian man reported verbal and physical abuse.

I have been verbally harassed and physically assaulted while working in public for being a POC. Strangers report my presence to security and police while I am working, which means my work is interrupted while I am detained or questioned. I now wear a body camera to help deescalate confrontations and to provide evidence to authorities of my conduct and the conduct and behavior of those I encounter.

4. Exclusion from Industry Networks

Many minority and woman business owners felt excluded from networks necessary for success.

Entrenched relationships, and yes, definitely a "good old boy" network in Austin, particularly for prime jobs.

I had a meeting with a general contractor to establish a good rapport and the GC kept discussing all his friends and I mentioned that it was an established network and he said of course it is and that it would be difficult for me to break in. I just quit after that.

The biggest barrier to the growth of my business are the lack of networks that are in procurement related areas so my business can be considered for opportunities.

My competency has not been questioned in person. I've never been extended an opportunity to present my business for consideration. I did have an email exchange and a phone call with a key person at [name]; however, after coming up with a plan-of-action and following up with him regarding that plan, he ghosted me and never responded to my calls, texts or emails.

I don't have political connections.

I feel the access is being granted because of some individual allies or in a token form sometimes.

Honestly, how would I know? There are so many insider actions that I am not aware of.

I need to work with companies, but don't have the proper channels to get there.

Information is diluted or manipulated before we get it.

[We have not been] admitted into the inner circle of networking relationships between male-dominated IT service companies and male client team members, especially for larger projects.

As a woman and minority firm in construction, it is difficult to acquire qualified field staff to perform our trade because most are males that network with other males or male-owned contractors.

5. Access to Contract Opportunities

Some minority and woman respondents felt that prime bidders often use them only to meet affirmative action goals.

If contractors would be willing to work with us on an ongoing [basis] and not only because they have to.

Contractors just don't really want to use us unless there are goals. Even as a Native American-owned firm, because the goal is so low, they only want to get that little tiny amount from us to satisfy the goal but not really be open to purchasing the other materials we carry.

When I am working, my skill set is very much appreciated but many times I have a difficult time getting in the door due to being female and a minority.

6. Financial Barriers to Contract Opportunities

Many minority and woman owners reported difficulties with obtaining financing and bonding that would allow them to take on more work and successfully compete.

I was unable to obtain sufficient funding for growth from my banks for many years. In the first years of growing the company, my bank VP told me twice to come back with my husband before they could discuss my application for funding. Recently, I was able to receive sufficient funding from the SBA. Regardless of our good credit we are always not good enough to qualify for the amount we requested.

The requirement is such that we wouldn't even waste [our time]. Some of bond requirements are only to limit competition and also to eliminate small and minority businesses. It is deep.

As a female owner of a smaller small business AND attempting to do business different from the usual (think good ole boy network), it's been challenging to support other WMBEs and meet the baseline requirements of insurance and bonding.

We know we could become a larger Company providing jobs and opportunities. We were turned down flat by many local banks even though our business plan is solid.

Banks seem to think that my type of business is too high risk. Not sure of my equipment, whether it is worth the money, and also [whether] my race has been a hindrance.

I have been turned down for line of credit with a signed construction contract in hand. You figure that.

Just this week! I've been in business for 19 years and have great credit and last week, a supplier would not open my account for a 10K order. I have another supplier that will not open an account for me and makes me file a Joint Check Agreement which means I don't get my money for (most times) 90 days!

The lack of predictable annual income makes banks consider us a risk in spite of have A++ credit.

One respondent noted that bonding is particularly challenging for new businesses.

Getting bonding was challenging when my business first began as it was necessary to provide a financial statement indicating profitability and a backlog of work. Bonding is no longer a challenge.

7. Barriers to Equal Contract Terms

Some minority and woman respondents reported being charged higher pricing for materials based on their race, ethnicity and gender.

I believe they charge more when they believe our firm would fail and they won't get paid.

I have heard stories from other minority business owners who have experienced this type [pricing discrimination] of disparity.

We are quoted different pricing than the majority.

We cannot be certain; however, it is suspected at times certain subs or suppliers (services, mostly) will quote a higher price to us.

I don't say the price was the same to us as to others.

Some minority and woman respondents reported that they are often under pressure to reduce their pricing relative to their White male counterparts.

I have definitely received lower pricing because of being female, I had access to pricing information paid for various contractors in same position and found that I was paid less, and [the] only female.

Project pricing is expected to be lower than white peers. It is a standard business practice but in order to win the job minorities pricing has to be much lower than everyone else's.

Some firms also expect me to charge less and do more as a [photographer of color].

There is also a problem with change order pricing. Minorities are not expected to submit change orders for work scope changes and are in many cases expected to eat the additional costs.

D. Conclusion

Consistent with other evidence reported in this Study, the business owner interviews, and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in the City of Austin's market area. Many minorities and women reported negative perceptions and assumptions about their competency that reduced their ability to conduct business. Minorities and women still suffer from stereotyping and hostile environments. MBEs and WBEs often had reduced opportunities to obtain contracts, less access to formal and informal networks, and much greater difficulties in securing financial support relative to non-MBEs/WBEs/ DBEs in their industries. A large number indicated that they were working well below their capacity.

Anecdotal evidence may "vividly complement" statistical evidence of discrimination. While not definitive proof that the City needs to continue to implement raceand gender-conscious remedies for these impediments, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with other evidence assembled, are relevant and probative of the City's evidentiary basis to consider the use of race- and gender-conscious measures on local contracts.

APPENDIX A: FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the report, multiple regression statistical techniques seek to explore the relationship between a set of independent variables and a dependent variable. The following equation is a way to visualize this relationship:

$$\mathsf{DV} = \mathsf{f}(\mathsf{D}, \mathsf{I}, \mathsf{O})$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta 1 * D) + (\beta 2 * I) + (\beta 3 * O) + \mu$$

where C is the constant term; $\beta 1,\,\beta 2$ and $\beta 3$ are coefficients, and μ is the random error term.

The statistical technique seeks to estimate the values of the constant term and the coefficients.

In order to complete the estimation, the set of independent variables must be operationalized. For demographic variables, the estimation used race, gender and age. For industry and occupation variables, the relevant industry and occupation were utilized. For the other variables, age and education were used.

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. Since this report examined the City of Austin, the analysis was limited to data from the Austin/Round Rock MSA, which consists of Bastrop, Caldwell, Hays, Travis, and Williamson counties. The coefficient for the new variable showed the impact of being a member of that race or gender in the metropolitan area. City of Austin Disparity Study 2022

APPENDIX B: FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

Probit regression is a special type of regression analysis. Probit regression analysis is used to explore the determinants of business formation because the question of business formation is a "yes' or "no" question: the individual does or does not form a business. Hence, the dependent variable (business formation) is a dichotomous one with a value of "one" or "zero". This differs from the question of the impact of race and gender of wages, for instance, because wage is a continuous variable and can have any non- negative value. Since business formation is a "yes/no" issue, the fundamental issue is: how do the dependent variables (race, gender, etc.) impact the probability that a particular group forms a business? Does the race or gender of a person raise or lower the probability he or she will form a business and by what degree does this probability change? The standard regression model does not examine probabilities; it examines if the level of a variable (*e.g.*, the wage) rises or fall because of race or gender and the magnitude of this change.

The basic probit regression model looks identical to the basic standard regression model:

$$DV = f(D, I, O)$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry and occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

 $DV = C + (\beta 1 * D) + (\beta 2 * I) + (\beta 3 * O) + \mu$

where C is the constant term; $\beta 1,\,\beta 2,\,and\,\beta 3$ are coefficients, and μ is the random error term.

As discussed above, the dependent variable in the standard regression model is continuous and can take on many values while in the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. The two models also differ in the interpretation of the independent variables' coefficients, in the standard model, the interpretation is fairly straightforward: the unit change in the independent variable impacts the dependent variable by the amount of the coefficient.²⁶⁶ However, in the probit model, because the model is examining changes in probabilities, the initial coefficients cannot be interpreted this way. One additional computation step of the initial coefficient must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.*, business formation) occurring. For instance, with the question of the impact of gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the additional computation chance of the coefficient of WOMAN yielded a value of -0.12, we would interpret this to mean that women have a 12 percent lower probability of forming a business compared to men.

^{266.} The exact interpretation depends upon the functional form of the model.

APPENDIX C: SIGNIFICANCE LEVELS

Many tables in this Report contain asterisks indicating that a number has statistical significance at 0.001, 0.01, or 0.05 levels (sometimes, this is presented as 99.9 percent; 99 percent and 95 percent, respectively) and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This Appendix provides a general explanation of significance levels.

This Report seeks to address the question of whether or not non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing the City of Austin as it explores whether each racial and ethnic group and White women continue to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (e.g., wages) and the independent variable (e.g., non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say, for example, that this analysis determines that non-Whites receive wages that are 35 percent less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (e.g., non-Whites) and the dependent variable (e.g., wages) – the first sub-question. It is still important to determine how accurate the estimation is. In other words, what is the probability that the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (e.g., non-Whites earn identical wages compared to White men or non-Whites earn 0 percent less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find the probability that the observed relationship (e.g., -35 percent) is between 0 and minus that confidence interval.²⁶⁷ The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. When a number is statistically significant at the 0.001 level, this indicates that we can be 99.9 percent certain that the number in question (in this example, -35 percent) lies outside of the confidence interval. When a number is statistically significant at the 0.01 level, this indicates that we can be 99.0 percent certain that the number in the seam be 99.0 percent certain that the number is statistically significant at the 0.05 level, this indicates that we can be 95.0 percent certain that the number in question lies outside of the confidence interval.

^{267.} Because 0 can only be greater than -35 percent, we only speak of "minus the confidence level". This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say "plus or minus the confidence level" and this would be a two-tailed test.

APPENDIX D: UNWEIGHTED AND WEIGHTED AVAILABILITY

Central to the analysis, under strict constitutional scrutiny, of an agency's contracting activity is understanding what firms could have received contracts. Availability has two components: unweighted availability and weighted availability. Below we define these two terms; why we make the distinction; and how to convert unweighted availability into weighted availability.

Defining Unweighted and Weighted Availability

Unweighted availability measures a group's share of all firms that could receive a contract or subcontract. If 100 firms could receive a contract and 15 of these firms are minority-owned, then MBE unweighted availability is 15 percent (15/100). Weighted availability converts the unweighted availability through the use of a weighting factor: the share of total agency spending in a particular NAICS code. If total agency spending is \$1,000,000 and NAICS Code AAAAAA captures \$100,000 of the total spending, then the weighting factor for NAICS code AAAAAA is 10 percent (\$100,000/\$1,000,000).

Why Weight the Unweighted Availability

It is important to understand *why* weighted availability should be calculated. A disparity study examines the overall contracting activity of an agency by looking at the firms that *received* contracts and the firms that *could have received* contracts. A proper analysis does not allow activity in a NAICS code that is not important an agency's overall spending behavior to have a disproportionate impact on the analysis. In other words, the availability of a certain group in a specific NAICS code in which the agency spends few of its dollars should have less importance to the analysis than the availability of a certain group in another NAICS code where the agency spends a large share of its dollars.

To account for these differences, the availability in each NAICS code is weighted by the agency's spending in the code. The calculation of the weighted availability compares the firms that received contracts (utilization) and the firms that could receive contracts (availability). Utilization is a group's share of total spending by an agency; this metric is measure in dollars, *i.e.*, MBEs received 8 percent of all dollars spent by the agency. Since utilization is measured in dollars, availability must be measures in dollars to permit an "apples-to-apples" comparison.

How to Calculate the Weighted Availability

Three steps are involved in converting unweighted availability into weighted availability:

- Determine the unweighted availability
- Determine the weights for each NAICS code
- Apply the weights to the unweighted availability to calculate weighted availability

The following is a hypothetical calculation.

Table A contains data on unweighted availability measured by the number of firms:

NAICS	Black	Hispanic	Asian	Native American	White Women	Non- M/W/DBE	Total
AAAAA	10	20	20	5	15	400	470
BBBBBB	20	15	15	4	16	410	480
СССССС	10	10	18	3	17	420	478
TOTAL	40	45	53	12	48	1230	1428

Table A

Unweighted availability measured as the share of firms requires us to divide the number of firms in each group by the total number of firms (the last column in Table A). For example, the Black share of total firms in NAICS code AAAAAA is 2.1 percent (10/470). Table B presents the unweighted availability measure as a group's share of all firms.

Table B								
NAICS	Black	Hispanic	Asian	Native American	White Women	Non- M/W/DBE	Total	
AAAAAA	2.1%	4.3%	4.3%	1.1%	3.2%	85.1%	100.0%	
BBBBBB	4.2%	3.1%	3.1%	0.8%	3.3%	85.4%	100.0%	
СССССС	2.1%	2.1%	3.8%	0.6%	3.6%	87.9%	100.0%	
TOTAL	2.8%	3.2%	3.7%	0.8%	3.4%	86.1%	100.0%	

Table C presents data on the agency's spending in each NAICS code:

NAICS	Total Dollars	Share					
ΑΑΑΑΑ	\$1,000.00	22.2%					
BBBBBB	\$1,500.00	33.3%					
CCCCCC	\$2,000.00	44.4%					
TOTAL	\$4,500.00	100.0%					

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Ia		C	C

Each NAICS code's share of total agency spending (the last column in Table C) is the weight from each NAICS code that will be used in calculating the weighted availability. To calculate the overall weighted availability for each group, we first derive the every NAICS code component of a group's overall weighted availability. This is done by multiplying the NAICS code weight by the particular group's unweighted availability in that NAICS code. For instance, to determine NAICS code AAAAAA's component of the overall Black weighted availability, we would multiply 22.2 percent (the NAICS code weight) by 2.1 percent (the Black unweighted availability in NAICS code AAAAAA). The resulting number is 0.005 and this number is found in Table D under the cell which presents NAICS code AAAAAA's share of the Black weighted availability. The procedure is repeated for each group in each NAICS code. The calculation is completed by adding up each NAICS component for a particular group to calculate that group's overall weighted availability. Table D presents this information:

Table D

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/ DBE
ААААА	0.005	0.009	0.009	0.002	0.007	0.189
BBBBBB	0.014	0.010	0.010	0.003	0.011	0.285
СССССС	0.009	0.009	0.017	0.003	0.016	0.391
TOTAL	0.028	0.029	0.037	0.008	0.034	0.864

To determine the overall *weighted availability*, the last row of Table D is converted into a percentage (*e.g.*, for the Black weighted availability: 0.028 * 100 = 2.8 percent). Table E presents these results.

Table E

Black	Hispanic	Asian	Native American	White Women	Non-MWBE	Total
2.8%	2.9%	3.7%	0.8%	3.4%	86.4%	100.0%

APPENDIX E: QUALITATIVE EVIDENCE FROM TEXAS DISPARITY STUDIES

In addition to the anecdotal data collected for this study and provided in the Qualitative chapter of this report, Colette Holt & Associates has conducted several studies in Texas over the last few years that shed light on the experiences of minority- and women-owned firms in the Texas marketplace.

This summary of anecdotal reports provides an overview of the following Disparity Studies: the Dallas Fort Worth International Airport 2019 ("DFW"); Texas Department of Transportation 2019 ("TxDOT"), Dallas County 2015 ("Dallas County"), Parkland Health and Hospital System 2015 ("PHHS"), Harris County 2020 ("Harris County"), the City of Arlington ("Arlington") and the City of Fort Worth ("Fort Worth").

1. Discriminatory Attitudes and Negative Perceptions of Competency and Professionalism

Many minority and women owners reported being stigmatized by their race and/or gender. Subtle and overt stereotyping and race and gender discrimination were commonplace. Respondents reported that White men often evince negative attitudes concerning their competency, skill and professionalism.

Biases about the capabilities of minority and women business owners impact all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. The prevailing viewpoint is that MBEs and WBEs and smaller firms are less qualified and capable.

One of the biggest general contractors in this part of Texas got up and says, "I don't want to do business with [minorities].... The only reason

why I'm here is because I got a contract and the state is paying for it, or

else I wouldn't be doing business with you. (Harris County, p.95)

Stigma sometimes can come from leading your marketing with M/WBE status, and that's a quick way to [not get work]. (DFW, page 158)

Sometimes, I choose not to present myself as a minority contractor.... Obviously, when people meet me, [being an MBE] they assume certain things. As they get to know me and understand that I can speak construction, that I'm bilingual, that I speak engineering, then I get the comment, "Oh, you're different." Or, "You're educated."... I do think that there is a stigma" [to being an MBE]. (DFW, page 158)

I try not to use my accent. And treatment is completely different, completely different [if they think I am White]. (TxDOT, page 161)

[Agency staff and prime vendors] are looking down at you because you are a woman. Because you're a woman, you probably didn't know IT. (Dallas County, page 104) (PHHS, page 107)

There's still this stigma. "Well, I guess, you know, we'll see what the little girls are doing over there." (DFW, page 158)

There are many women owned businesses who are trying today to survive in the male-owned, if you want to say good old boy, Texas network. Many of us. And it does keep us down because of the perception of what the woman knows in math and science as you negotiate with engineers. (Dallas County, page 102)

When a White firm commits an offense, something goes wrong, they say run his ass off. Not the firm, but the architect or that manager who did a poor job. If it's an African-American firm or Hispanic firm, run the company off. (PHHS, page 108) (Dallas County, page 103)

People of color do not get the same credit even if their financials and credit scores are the same.... [A White man has] got a little bit more credit than you did. And then there was a slowdown in paid invoices, [he's] a big GC and he floats it because he's got a little more credit. And then people turn around, "Hey, that guy's a good business. Joe Man Black over here, Hispanic, he doesn't know how to manage his business." All he did was access his credit line. And if he would've had his credit line, he could do it, too. It's like he ain't stupid. If he had a

credit line, he'd access it when he needs it.... So then, [non-MBEs/WBEs] look like they're better business people, not because they're better business people, but because people are carrying them. (Fort Worth, page 137)

There's definitely on fees, an expectation, that if you are woman-owned or minority-owned firm, that you're going to do the work for less. Same work, for less. (Harris County, page 95)

Many women reported unfair treatment or sexual harassment in the business world.

Sometimes I get statements like, "Are you sure you can do the work?" (TxDOT, page 162)

I've dealt with [TxDOT staff] that just thought I was dumb as dirt because I'm a woman, but this was a woman. (TxDOT, page 163)

I still do find the initial contact with specifically, a general contractor, there is somewhat that attitude of you're a woman, let me tell you how to do this. (TxDOT, page 162)

You get a lot of that. You're a woman, pat you on the head and say it's nice that you came today. Then, all the sudden, they'll be over there doing their thing and you sit there and hear what they're saying. You're like, that's not gonna be to code buddy and good luck with that. They look at you like, how do you know that? This is my job to know those things (TxDOT, page 162)

I have offered to go out and market more for the company and... some guys that were sitting in the back, they said, "Well, we really need somebody very young and pretty and dresses very nice to go out and market, 'cause they get the attention." "Excuse me?" I think I can do a good job marketing, but I...don't meet those qualifications. (TxDOT, page 163)

I've had dinner encounters ... I've had a guy grab me at one of those.... I definitely do make it a point to not ride with certain people that I don't feel comfortable with. (DFW, page 158)

2. Access to Formal and Informal Business and Professional Networks

Both minority and women respondents reported difficulty in accessing networks and fostering relationships necessary for professional success and viability. This difficulty extended to agency staff; respondents were unable to gain access to and communicate with key agency decisionmakers. Business owners frequently stated that Texas is a "good old boy" state (TxDOT, page 161; Dallas County, page 102; Fort Worth, page 134) and that it is difficult for new firms to gain entry into a predominantly White and male-dominated industry. (DFW, page 158).

The transportation industry as a whole is dominated by the civil engineers, which typically the folks graduating in civil engineering are white men. You have a very low proportion of women and minorities with those degrees. Inherently, then in the workplace, you're seeing very low amounts of diversity. Same things in environmental services. You don't get a lot of women who are wildlife biologists. Someone with that type of experience typically has been hunting and fishing with his father and his grandpa their entire lives and they have a good old boys club. They go drinking, they go fishing, they go playing golf. (TxDOT, page 162)

You call and call and call [prime vendors] and you sort of feel like you're just bugging them. But they never call back. They never do anything. So, just seems like they're just used to doing business with the same companies and that's who they choose to do business with. (Harris County, p. 100)

They still see women as a support system. They do not see us as business people. We are stepping out, and we are, women are coming on. Men, I hate to put it, y'all better get ready because the women are in the labor force, they're coming hard, and they're coming fast. (Fort Worth, page 136)

You're not in the frat. You didn't get the letter, you know? You didn't get the call. But whatever you need to do to get in, you need to figure it out. (Harris County, page 100)

[Texas is] a good old boy state. It is a fact of life whether you're a woman, small business, whatever. Ladies, the only way we get a chance is we have to legally stand up and demand that we get a fair trial, that we be put on a level playing field by having rules and regulations.... [Women] are always behind. We will always be behind in this state. (Dallas County, page 101)

We are always at a disadvantage because we are not in a situation where we can build these relationships. Going to the country club here and having lunch with the mayor and with all of the CEOs of the companies around here. So, the playing field

is not level, and it is discriminatory because we're not in a position to build those relationships. (Arlington, page 143).

I've been raised in Fort Worth my whole life and so it's still a very much a good old boys club here in Fort Worth. I spend 90 percent of my time in Dallas. And I live in Fort Worth. (Fort Worth, page 134)

I'm a lifelong Fort Worth resident and taxpayer and it's very disheartening that the City of Dallas has actually been a lot easier as a small minority business. There are certain aspects of the good old boys' club [you see] attending some of the prebids. You do see a lot of kind of favoritism and partiality to the contractors that are there and some of the City officials. (Fort Worth, page 134)

In presenting the various options and moving forward from concept into detail design, sitting around a room, and except for maybe an architect, I was always the only woman at the table. It's an expertise that I've carried for many years, and literally, repeated to the owners of a government entity, would present the case and why this is the recommendation to move forward. And it would be silence in the room. And then, this junior, who was not even a licensed P[rofessional] E[ngineer] yet, working underneath of me, who helped me put the slides together, and did some of the analysis under my leadership, would – they'd ask a couple of questions and this young man would answer the questions based on the slides and flipping back and forth. And then all of a sudden, the recommendation was accepted because this young man, who was my employee, was giving the answer instead of me. (Harris County, page 96)

There are many women owned businesses who are trying today to survive in the male-owned, if you want to say good old boy, Texas network. Many of us. An, it does keep us down because of the perception of what the woman knows in math and science, as you negotiate with engineers. (Dallas County, page 102)

My industry it is extremely male dominant.... They say, " Oh, there's a girl, there's a woman. What is she here for? Who does she work for?... That's [name]. Oh, she owns her own company. She's a little bitty company. She's nothing to worry about." Well, I'm going to be silent and deadly and they're going to watch because I'm coming. (Fort Worth, page 135)

The County and the hospital ... do tell you about the opportunities. The problem is you can't get into the inner circle [of agency decision makers]. (Dallas County, page 102)

[There is an] inability to get in front of the key decision makers [at the agencies].... I reached out to the executive assistant to the C[hief] I[information] O[fficer] and no one has responded at all. (PHHS, page 107)

3. Obtaining Work on an Equal Basis

Respondents reported that institutional and discriminatory barriers continue to exist in the Texas marketplace. They were in almost unanimous agreement that contract goals remain necessary to level the playing field and equalize opportunities. Race- and gender-neutral approaches alone are viewed as inadequate and unlikely to ensure a level playing field.

If it's not a project that has a goal, they're not bringing you to the table. (Dallas County, page 103)

There's no real aggressive movement on [the City's] part to recruit and require these plans to hire African-Americans. (Arlington, page 144).

There is an entrenched bias in favor of the big company. They'll have the political connections, all that stuff ...They don't want to risk anything. They've got the good old boys, they got the whole comfy thing. (Arlington, pages 144-145).

Unless there's goals in the project, there is no business for small business. And even then, they try to skirt around it. And they'll use my credentials to actually go for it and then excuse me. (Dallas County, page 103)

I have never had a contract with a general contractor in 36 years that's private. Everything is government, and if the government didn't say use a minority, they wouldn't do it. (Harris County, page 97)

Prime vendors see the goal as the ceiling, not as the floor. (Dallas County, page 103)

If you just looking at goals, goals in itself, without enforcements, it's not effective. (Harris County, page 101)

If it wasn't for that requirement, that MWB requirement, most of the businesses would probably have a very difficult time staying in business and my business, probably 80 percent of it [comes] just from these types of governmental projects that come along and it's no way that these primes would work with us ... on projects that did not have an MWB requirement. (Fort Worth, page 137)

If the program went away, what would happen? You would lose small businesses. One, if you don't have relationships, people do business with who they know. If we don't have a program that says that there has to be utilization, participation levels, whatever that is, DBE goals MBE goals, they won't use them. (Fort Worth, page 137)

Part of the problem is accountability... The State [of Texas] has told me, with regard to submitting bids for the Texas HUB requirement, that I need to go back to the contractor, but the contractor is the problem.... The government doesn't hold the contractor accountable. (Harris County, page 102)

The [City] work stopped as a result [of dropping Hispanic firms from the program]. It was not going to be helpful to [the prime proposer] to bring on my firm, because they wouldn't get any points in the grading of the proposals. So, therefore, I have not been able to do any work at all since. (Fort Worth, page 138)

If [prime vendors] think they can get away with it, without having goals, then they're going to self-perform or they're going to use the folks that they have relationships with. And those folks don't necessarily look like us. (Dallas County, page 103)

Until those [business relationships] are equal, you're going to have to keep on forcing numbers. And as quick as you force a number, they're going to come up with something to circumvent that number. (Dallas County, page 104)

[Prime contractors] are like, why do I need you? Why do I need to give you any money? It's not required of me to do it. So, you may have the greatest relationship with them in the world but those larger firms, if they don't need to check the box so to speak, they're not going to reach out and say, hey, I want to help grow you more because in their mind I just helped you on this job get this much money, you should be happy and let me go do what I need to do. (Dallas County, page 103) Minority and female entrepreneurs were also concerned about the inability to get work due to longstanding relationships that predate contracting affirmative action programs.

[Larger white male-owned firms are] going to go and use the same company [with which they usually do business]. (PHHS, page 106)

[People] tend to do business with who they know and who they like, and they really don't care that they're supposed to [meet a goal]. (Dallas County, page 103)

And if you're not a DBE or HUB or SBE, you're not going to be considered for any work as a consultant for TxDOT because they're going to use these legacy firms for most of their work on the consulting side. (TxDOT study, page 164)

There's this systemic nature of doing business with people you know. And we all like to do business with people we know. We know that they'll come through. They'll be on time. They'll be under budget.... [But] the systemic aspect of familiarity for others sometimes breeds contempt for the person trying to get in the door. (Fort Worth, page 133)

Respondents also maintained that prime contractors are not comfortable with minorities taking larger roles. They indicated that even MBEs/WBEs who had accessed large public contracts through M/WBE programs did not translate into public sector work.

Do we really want to play this game and how much headache and how much headache do we want to deal with?... We employ 75 employees and I've had minorities grow through our organization. But, the challenge that I have is now that we're able to bond single projects up to 15, 18 million dollars, I'm getting a bigger pushback.... When we can sit down and start talking business and how we're going to staff the job, going to put my bonding up, what's the duration and the schedule? [The large general contractors are] doing this, no, no, no [shaking head]. (Dallas County, page 104)

You get in a niche of being a DBE and you're automatically a sub.... We've had a lot of success in the DBE market and I'm not going to downplay that, but as a prime, we don't get a lot. We end up getting a smaller piece so you can do the hydraulics, or you can do the survey but the true design work for plan and profile on a street or something like that where we can actually

show expertise in engineering, we're not given that piece of the pie. (Arlington, page 145).

[A general contractor, which this MBE had worked on major project jobs, when approached about a private sector project, responded] there's no MWBE [goal] on this: I said, wait a minute. We just worked together for five years, you know me. Yes, but there's not MWBE goals. I said, you mean to tell me I can't do [scope]? It's right across the street from my headquarters. Well, there's no MWBE goals. So, he's one of the good guys. (PHHS, page 109)

Respondents also suggested approaches to increasing M/WBE opportunities and capacities.

Come out with a mentoring program that's goal-oriented and visible. (PHHS, page 110)

A good mentor helps you with a lot of things that have nothing to do with that specific project but with your business. Helps you with your safety plan and quality control plans (Dallas County, page 105)

My recommendation is that they start to do lunch and learn where you get to meet with that department for hours specific to your line of business and now you're able to have a true oneon-one conversation, or even in a group setting of their size where we can ask specific questions to understand how to respond to these RFQs, RFPs better, because as it stands right now, it's the generic and generic gets you nowhere because you don't know what a person expects. And we all have a concept of how we work, but if that's not what the person's looking for, we miss every time. (Arlington, page 146).

We've had a mentorship with [firm name] which has helped us immensely. Because I don't think we would have been able to walk through the doors or bid on the things that we've bid on or have the opportunity had we not had that mentorship. Because they had forged a path in places where I hadn't seen before. And I work in a very male dominated business in [specialty trade]. It's predominantly men. And there is some stigma with that. There are competency issues when you show up at a meeting and you're a woman and you're representing the [specialty trade] company. So, I'm really thankful for the mentorship program because I think it's just something that helps open doors. (PHHS, page 110) I'm hearing a lot of positive feedback on mentor-protégé [initiatives]. Because you write a really good mentor-protégé agreement and you have a great mentor, you can really learn a lot. (Dallas County, page 105)

Houston Community College has a lot of money that they have to put programs together. And they said if we will just call them and tell them what program we want, and we can get, say, 10 to 15 people in there, they'll design the program. So, you could put a mentoring program together for anybody. (Harris County, page 103)

I have some experience with J[oint] V[entures] and mentorprotégé relationships and they work but it depends on A, who you're partnering with. It's just like with anything. A JV is like a marriage. (Dallas County, page 105)

Our challenge [with acting as joint venture partner with a majority-owned firm] that we have when we're sitting at the table [is] we're really not in a decision-making position [with the majority-owned partner]. (Dallas County, page 105)

There should be contracts from which] the big boys should be completely excluded. (Dallas County, page 106)

l'm a big fan of being a participant in mentor-protégé programs because you learn how to stay in business. (Harris County, page 103)

If the County were to follow any program on the civil side, it would be the State as opposed to the City. I think the State has a lot better program. They have lower goals, but they use commercially useful function. The City has no commercially useful function. They say they do, but they really don't. There's a lot of pass throughs because their goals are so high. A lot of pass throughs are used every day to meet the goals and to me that's not the purpose of what we're doing. (Harris County, page 106)