

City of Arlington Disparity Study 2020



CITY OF ARLINGTON DISPARITY STUDY

2020

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About the Study Team

CH Advisor's Inc. ("Advisors"), formerly known as Colette Holt & Associates, is a national consulting firm specializing in issues related to Minority, Woman, Disadvantaged and Small Business Enterprise programs, supplier diversity initiatives, and affirmative action issues. The firm has conducted court-approved disparity studies and designed court-approved programs for over 25 years, including for numerous Texas governments. Advisors also provides training, monitoring and investigative services across the country to agencies and businesses. Colette Holt, the founding principal of both Colette Holt & Associates and CH Advisors, Inc., is also a frequent expert witness, monitor and a media author and commentators. Advisors is led by Colette Holt, J.D., a nationally recognized attorney and expert. 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., Advisors Project Administrator; Glenn Sullivan, B.S., Advisors Director of Technology; Victoria Farrell, MBA, Advisors Assistant Principal Researcher; and Joanne Lubart, J.D., Special Counsel. Advisors is certified as a Disadvantaged Business Enterprise, Minority-Owned Business Enterprise and a Woman-Owned Business Enterprise by numerous agencies.

Nervi' Strategic Solutions, LLC (MBE/SBE) strategically aligns disadvantaged, minority, woman and small companies to compete in today's challenging contracting industry in both the private and public environments. President Pam Ervin-Davis has over 25 years of experience in supplier diversity and has worked with partnerships of D/M/W/SBEs in all industries. Nervi' has also teamed with Advisors on several disparity studies.

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I. EXECUTIVE SUMMARY

A. Study Methodology and Data

We determined the City of Arlington's utilization of M/WBEs during fiscal years 2014 through 2018; the availability of these firms as a percentage of all firms in the City's geographic and industry market areas; and any disparities between the City's utilization of M/WBEs and M/WBE availability. We further analyzed disparities in the wider Dallas Fort Worth metropolitan area economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We further gathered anecdotal and qualitative data about the experiences of minority- and woman-owned firms in obtaining the City's contracts and the associated contracts and concession opportunities. We evaluated the City's programs for conformance with constitutional standards, national best practices, and the M/WBE program regulations.

Based on the results of these extensive analyses, we made recommendations for the City's business diversity programs.

B. Legal Standards for Government Contracting Affirmative Action Programs

To be effective, enforceable, and legally defensible, a race-based affirmative action program for public sector contracts, regardless of funding source, must meet the judicial test of constitutional "strict scrutiny". Strict scrutiny is the highest level of judicial review. Strict scrutiny analysis is comprised of two prongs:

1. The government must establish its "compelling interest" in remedying 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.
2. Any remedies adopted must be "narrowly tailored" to that discrimination; the program must be directed at the types and depth of discrimination identified.¹

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

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

1. Statistical evidence of the underutilization of minority or woman firms by the agency and/or throughout the agency's geographic and industry market area compared to their availability in the market area. These are disparity indices, comparable to the type of "disparate impact" analysis used in employment discrimination cases.
2. 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, comparable to the "disparate treatment" analysis used in employment discrimination cases.² 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 case law on the DBE program should guide the City's program for locally-funded contracts. Whether the program is called an M/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 Minority- and Woman-Owned Business Enterprises ("M/WBEs") will be judged against this legal framework.³ We note that 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 sys-

2. *Id.* at 509.

3. *Midwest Fence Corp. v. US Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority*, 840 F.3d 932, 935 (7th Cir. 2016) ("*Midwest Fence II*").

tems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems.⁴ 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.⁵

C. Utilization, Availability and Disparity Analyses

CHA analyzed contract data for federal fiscal years 2014 through 2018 for the City of Arlington’s (“the City”) contracts. To conduct this analysis, 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; NAICS codes of prime contractors and subcontractors; non-Minority/Women Business Enterprise (“M/WBE”) subcontractor information, including payments/gross receipts, race, gender; etc. The resulting Final Contract Data File (FCDF) was used for the analysis of the utilization of the City’s contracts.

The City’s contracts contained 449 contracts, with a net paid amount of \$420,437,823.76; subcontractors received 629 contracts. Prime contractors received \$315,204,458.38 of the net paid amount; subcontractors received \$105,233,364.38 of the net paid amount.

The FCDF was used to determine the City’s product and geographic market. With these parameters, we estimated the utilization of M/WBEs on the City’s contracts. This analysis formed the Final Contract Utilization Data File. We used this file, in combination with other databases (as described below), to calculate M/WBE unweighted and weighted availability in the City’s marketplace.

For purposes of goal setting, the availability estimates are weighted by the City’s actual spending patterns, as determined by the NAICS codes it utilized. Weighting availability results in a more accurate picture of which firms are available to participate in the agency’s opportunities. For example, high availability in a NAICS code in which minimal dollars are spent would give the impression that there are more M/WBEs that can perform work on agency contracts than are actually ready, willing and able. Conversely, a low availability in a high dollar scope would understate the potential dollars that could be spent with M/WBEs.⁶

4. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534, 1166 U.S. 103 (2001) (“statistical and anecdotal evidence are appropriate”) (“*Adarand VII*”).

5. *Id.*

6. This is why the USDOT “Tips for Goal Setting” urges recipients to weight their headcount of firms by dollars spent. See <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

Table 1-1 presents data on the 148 NAICS codes contained in the City's Final Contract Data File.

Table 1-1: Industry Percentage Distribution of Contracts by Dollars
All Contracts

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237310	Highway, Street, and Bridge Construction	33.3%	33.3%
237110	Water and Sewer Line and Related Structures Construction	9.5%	42.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.6%	50.3%
541330	Engineering Services	7.2%	57.6%
237990	Other Heavy and Civil Engineering Construction	6.1%	63.7%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.7%	68.4%
561730	Landscaping Services	2.8%	71.2%
325180	Other Basic Inorganic Chemical Manufacturing	1.7%	72.9%
811111	General Automotive Repair	1.6%	74.6%
541320	Landscape Architectural Services	1.5%	76.0%
236220	Commercial and Institutional Building Construction	1.4%	77.4%
541512	Computer Systems Design Services	1.3%	78.7%
541310	Architectural Services	1.1%	79.8%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.9%	80.7%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.9%	81.5%
332312	Fabricated Structural Metal Manufacturing	0.8%	82.3%
561320	Temporary Help Services	0.7%	83.0%
238990	All Other Specialty Trade Contractors	0.7%	83.7%
561210	Facilities Support Services	0.7%	84.4%
444190	Other Building Material Dealers	0.6%	85.0%
238910	Site Preparation Contractors	0.6%	85.5%
485310	Taxi Service	0.6%	86.1%
524210	Insurance Agencies and Brokerages	0.6%	86.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
238160	Roofing Contractors	0.5%	87.2%
561720	Janitorial Services	0.5%	87.7%
485999	All Other Transit and Ground Passenger Transportation	0.5%	88.2%
621111	Offices of Physicians (except Mental Health Specialists)	0.4%	88.6%
238310	Drywall and Insulation Contractors	0.4%	89.0%
238140	Masonry Contractors	0.4%	89.5%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.4%	89.9%
562119	Other Waste Collection	0.4%	90.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.4%	90.6%
541370	Surveying and Mapping (except Geophysical) Services	0.3%	91.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.3%	91.3%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	0.3%	91.5%
238110	Poured Concrete Foundation and Structure Contractors	0.3%	91.8%
323111	Commercial Printing (except Screen and Books)	0.3%	92.1%
238150	Glass and Glazing Contractors	0.3%	92.3%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.3%	92.6%
524292	Third Party Administration of Insurance and Pension Funds	0.3%	92.9%
541380	Testing Laboratories	0.2%	93.1%
812930	Parking Lots and Garages	0.2%	93.4%
327390	Other Concrete Product Manufacturing	0.2%	93.6%
423840	Industrial Supplies Merchant Wholesalers	0.2%	93.8%
488490	Other Support Activities for Road Transportation	0.2%	94.1%
238350	Finish Carpentry Contractors	0.2%	94.3%
923120	Administration of Public Health Programs	0.2%	94.5%
339920	Sporting and Athletic Goods Manufacturing	0.2%	94.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.2%	94.9%
562910	Remediation Services	0.2%	95.0%
811219	Other Electronic and Precision Equipment Repair and Maintenance	0.2%	95.2%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.2%	95.4%
238320	Painting and Wall Covering Contractors	0.2%	95.6%
334310	Audio and Video Equipment Manufacturing	0.2%	95.8%
325311	Nitrogenous Fertilizer Manufacturing	0.2%	95.9%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.1%	96.1%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.1%	96.2%
238340	Tile and Terrazzo Contractors	0.1%	96.4%
238390	Other Building Finishing Contractors	0.1%	96.5%
561990	All Other Support Services	0.1%	96.6%
484110	General Freight Trucking, Local	0.1%	96.8%
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0.1%	96.9%
541820	Public Relations Agencies	0.1%	97.0%
926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	0.1%	97.2%
812332	Industrial Launderers	0.1%	97.3%
541420	Industrial Design Services	0.1%	97.4%
541511	Custom Computer Programming Services	0.1%	97.5%
531320	Offices of Real Estate Appraisers	0.1%	97.6%
541612	Human Resources Consulting Services	0.1%	97.7%
221310	Water Supply and Irrigation Systems	0.1%	97.8%
333120	Construction Machinery Manufacturing	0.1%	97.9%
238330	Flooring Contractors	0.1%	97.9%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
561612	Security Guards and Patrol Services	0.1%	98.0%
332323	Ornamental and Architectural Metal Work Manufacturing	0.1%	98.1%
337212	Custom Architectural Woodwork and Millwork Manufacturing	0.1%	98.2%
541611	Administrative Management and General Management Consulting Services	0.1%	98.2%
541620	Environmental Consulting Services	0.1%	98.3%
512110	Motion Picture and Video Production	0.1%	98.4%
424910	Farm Supplies Merchant Wholesalers	0.1%	98.4%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.1%	98.5%
236210	Industrial Building Construction	0.1%	98.6%
332322	Sheet Metal Work Manufacturing	0.1%	98.6%
237120	Oil and Gas Pipeline and Related Structures Construction	0.1%	98.7%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.1%	98.7%
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	0.1%	98.8%
561790	Other Services to Buildings and Dwellings	0.1%	98.8%
327410	Lime Manufacturing	0.05%	98.9%
238120	Structural Steel and Precast Concrete Contractors	0.04%	98.9%
333921	Elevator and Moving Stairway Manufacturing	0.04%	99.0%
541110	Offices of Lawyers	0.04%	99.0%
922160	Fire Protection	0.04%	99.1%
541350	Building Inspection Services	0.04%	99.1%
335129	Other Lighting Equipment Manufacturing	0.04%	99.1%
561611	Investigation Services	0.04%	99.2%
518210	Data Processing, Hosting, and Related Services	0.04%	99.2%
562998	All Other Miscellaneous Waste Management Services	0.04%	99.3%
332510	Hardware Manufacturing	0.04%	99.3%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
424590	Other Farm Product Raw Material Merchant Wholesalers	0.03%	99.3%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.03%	99.4%
541430	Graphic Design Services	0.03%	99.4%
441222	Boat Dealers	0.03%	99.4%
712190	Nature Parks and Other Similar Institutions	0.03%	99.4%
335314	Relay and Industrial Control Manufacturing	0.03%	99.5%
541211	Offices of Certified Public Accountants	0.03%	99.5%
237210	Land Subdivision	0.03%	99.5%
711510	Independent Artists, Writers, and Performers	0.03%	99.6%
541840	Media Representatives	0.03%	99.6%
339950	Sign Manufacturing	0.03%	99.6%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.03%	99.6%
488410	Motor Vehicle Towing	0.03%	99.7%
562991	Septic Tank and Related Services	0.03%	99.7%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	0.03%	99.7%
511210	Software Publishers	0.02%	99.7%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.02%	99.8%
212312	Crushed and Broken Limestone Mining and Quarrying	0.02%	99.8%
424410	General Line Grocery Merchant Wholesalers	0.02%	99.8%
611710	Educational Support Services	0.02%	99.8%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	0.01%	99.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.01%	99.8%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.01%	99.9%
541690	Other Scientific and Technical Consulting Services	0.01%	99.9%
541219	Other Accounting Services	0.01%	99.9%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
321999	All Other Miscellaneous Wood Product Manufacturing	0.01%	99.9%
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	0.01%	99.9%
624230	Emergency and Other Relief Services	0.01%	99.9%
324121	Asphalt Paving Mixture and Block Manufacturing	0.01%	99.9%
541910	Marketing Research and Public Opinion Polling	0.01%	99.9%
327320	Ready-Mix Concrete Manufacturing	0.01%	99.9%
337920	Blind and Shade Manufacturing	0.01%	99.9%
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	0.01%	99.95%
111421	Nursery and Tree Production	0.01%	99.96%
561710	Exterminating and Pest Control Services	0.01%	99.96%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.005%	99.97%
332919	Other Metal Valve and Pipe Fitting Manufacturing	0.005%	99.97%
519110	News Syndicates	0.004%	99.98%
541360	Geophysical Surveying and Mapping Services	0.004%	99.98%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.003%	99.98%
423390	Other Construction Material Merchant Wholesalers	0.003%	99.99%
115115	Farm Labor Contractors and Crew Leaders	0.003%	99.99%
926110	Administration of General Economic Programs	0.002%	99.99%
517312	Wireless Telecommunications Carriers (except Satellite)	0.002%	99.99%
237130	Power and Communication Line and Related Structures Construction	0.002%	99.99%
326191	Plastics Plumbing Fixture Manufacturing	0.001%	99.996%
561410	Document Preparation Services	0.001%	99.997%
541990	All Other Professional, Scientific, and Technical Services	0.001%	99.998%
238130	Framing Contractors	0.001%	99.999%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
321113	Sawmills	0.001%	99.9998%
325520	Adhesive Manufacturing	0.0002%	100.000%
TOTAL			100.0%

Source: CHA analysis of the City's Data.

Three counties captured approximately 82 percent of FCDF dollars; thus, they constituted the geographic market of the City. Table 1-2 lists the share of FCDF dollars these counties received.

Table 1-2: Distribution of Contracts in the City's Geographical Market

State/County	Pct Total Contract Dollars
Tarrant County, TX	45.3%
Dallas County, TX	30.3%
Johnson County, TX	6.4%

Source: CHA analysis of the City's Data.

Having limited the FCDF to those firms within the City's geographic market (the resulting file is the Contract Data Utilization File), the next step was to determine the dollar value of the City's utilization of M/WBEs⁷ as measured by payments to prime firms and subcontractors and disaggregated by race and gender. The City had not collected data for all non-M/WBE subcontractors, as well as other records critical for the study. City staff worked hard to clean up the data and fill in missing information. However, we still had to obtain missing data from prime vendors, a lengthy process, as well as reconstruct other contract records, including researching the race and gender ownership of subcontractors and assigning NAICS codes to those firms.

Table 1-3 presents the distribution of contract dollars by all industry sectors. Chapter III provides detailed breakdowns of these results.

7. We use the term "M/WBEs" to include firms owned by racial or ethnic minorities and White females that are not certified as M/WBEs by an agency recognized by the City. This casts the "broad net" required by the courts, as discussed in Chapter II.

Table 1-3: Distribution of City Contract Dollars by Race and Gender
(share of total dollars)

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
111421	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
115115	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
212312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236115	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236210	0.0%	0.0%	0.0%	0.0%	6.1%	6.1%	93.9%	100.0%
236220	0.0%	84.6%	0.0%	0.0%	9.7%	94.3%	5.7%	100.0%
237110	0.0%	0.0%	0.0%	0.0%	65.3%	65.3%	34.7%	100.0%
237120	0.0%	0.0%	0.0%	0.0%	2.5%	2.5%	97.5%	100.0%
237130	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
237210	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
237310	0.0%	1.3%	1.1%	0.0%	4.6%	6.9%	93.1%	100.0%
237990	0.0%	0.0%	0.0%	0.0%	34.8%	34.8%	65.2%	100.0%
238110	0.0%	0.0%	0.0%	0.0%	87.3%	87.3%	12.7%	100.0%
238120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238140	0.0%	10.2%	0.0%	0.0%	4.7%	15.0%	85.0%	100.0%
238150	0.0%	0.0%	0.0%	0.0%	97.0%	97.0%	3.0%	100.0%
238160	0.0%	5.9%	0.0%	0.0%	0.0%	5.9%	94.1%	100.0%
238190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238210	0.0%	0.0%	2.8%	0.0%	0.1%	3.0%	97.0%	100.0%
238220	0.0%	0.1%	0.7%	0.0%	13.0%	13.8%	86.2%	100.0%
238310	0.0%	0.0%	0.0%	0.0%	30.9%	30.9%	69.1%	100.0%
238320	0.0%	16.2%	0.0%	0.0%	0.0%	16.2%	83.8%	100.0%
238330	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%	81.7%	81.7%	18.3%	100.0%
238350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238390	0.0%	0.0%	0.0%	0.0%	81.0%	81.0%	19.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
238910	0.0%	8.1%	1.2%	0.0%	21.3%	30.6%	69.4%	100.0%
238990	0.0%	32.8%	0.0%	0.0%	16.4%	49.3%	50.7%	100.0%
321113	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
321999	0.0%	0.0%	0.0%	0.0%	58.5%	58.5%	41.5%	100.0%
323111	0.0%	73.8%	0.0%	0.0%	0.0%	73.8%	26.2%	100.0%
324121	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325180	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325311	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325520	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
326191	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
327320	0.0%	0.0%	0.0%	0.0%	37.4%	37.4%	62.6%	100.0%
327390	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
331491	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332322	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332323	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332510	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332919	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332999	0.0%	4.1%	0.0%	0.0%	46.3%	50.4%	49.6%	100.0%
333120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
333413	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
333921	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
335129	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
335314	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
337215	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
337920	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
339920	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
339950	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
423320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423390	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
423610	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
423720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423840	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423910	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
424410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424590	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
444190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
453998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
484110	0.0%	38.0%	0.0%	0.0%	62.0%	100.0%	0.0%	100.0%
484220	0.0%	78.1%	0.0%	0.0%	20.4%	98.5%	1.5%	100.0%
485310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
488410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
488490	51.2%	0.0%	0.0%	0.0%	0.0%	51.2%	48.8%	100.0%
511210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
512110	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
517312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
519110	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
531320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
533110	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
541110	65.3%	0.0%	0.0%	0.0%	0.0%	65.3%	34.7%	100.0%
541211	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%	100.0%	100.0%
541310	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	94.0%	100.0%
541320	0.0%	3.5%	0.1%	0.0%	0.0%	3.6%	96.4%	100.0%

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NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
541330	0.0%	10.2%	9.7%	0.0%	2.3%	22.3%	77.7%	100.0%
541350	0.0%	0.0%	63.7%	0.0%	0.0%	63.7%	36.3%	100.0%
541370	3.4%	20.7%	7.9%	23.8%	12.1%	67.8%	32.2%	100.0%
541380	5.6%	2.3%	9.9%	0.0%	0.4%	18.2%	81.8%	100.0%
541420	0.0%	35.4%	0.0%	0.0%	62.4%	97.8%	2.2%	100.0%
541430	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541511	0.0%	54.2%	0.0%	0.0%	0.0%	54.2%	45.8%	100.0%
541512	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541611	0.0%	99.4%	0.0%	0.0%	0.0%	99.4%	0.6%	100.0%
541612	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541620	0.0%	64.0%	0.0%	0.0%	6.4%	70.3%	29.7%	100.0%
541690	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541840	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541990	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561320	0.0%	0.0%	0.0%	0.0%	99.1%	99.1%	0.9%	100.0%
561611	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561612	21.3%	0.0%	0.0%	0.0%	28.2%	49.4%	50.6%	100.0%
561710	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561720	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
561730	2.9%	18.4%	0.0%	0.0%	12.9%	34.2%	65.8%	100.0%
561790	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561990	0.0%	0.0%	0.0%	0.0%	1.4%	1.4%	98.6%	100.0%
562119	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
562910	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%	100.0%	100.0%	0.0%	100.0%
562998	0.0%	52.8%	0.0%	0.0%	0.0%	52.8%	47.2%	100.0%
712190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811121	0.0%	50.6%	0.0%	0.0%	49.4%	100.0%	0.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
811219	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%	100.0%	100.0%
812332	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
812930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
922160	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
926110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.3%	5.2%	2.3%	0.1%	14.2%	22.1%	77.9%	100.0%

Source: CHA analysis of the City's Data.

Using the “custom census” approach to estimating availability and the further assignment of race and gender using the FCDF, the Master M/WBE Directory and other sources, we determined the aggregated availability of M/WBEs, weighted by the City's spending in its geographic and industry markets, to be 29.8 percent for the City's contracts. Table 1-4 presents the weighted availability data for all product sectors combined for the racial and gender categories.

Table 1-4: Aggregated Weighted Availability for the City's Contracts

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
9.6%	9.4%	2.5%	0.4%	7.9%	29.8%	70.2%	100.0%

Source: CHA analysis of the City's Data; Hoovers; CHA Master Directory.

To meet the strict scrutiny test that requires all groups to have suffered discrimination in the City's markets to be eligible for credit towards meeting M/WBE contract goals, we next calculated disparity ratios comparing the City's utilization of M/WBEs as prime contractors and subcontractors to the availability of these firms in its market areas.

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. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.⁸ A statistically significant disparity means that an outcome is unlikely to have occurred as the result of random

8. See U.S. Equal Opportunity Employment 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.”).

chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone.

Table 1-5 presents these results. Three of the disparity ratios were found to be statistically significant at different levels. Four of the disparity ratios were found to be substantively significant.

Table 1-5: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE
Disparity Ratio	3.1%^	55.3%^	92.4%	22.7%^	180.7%*	74.1% ^{***}	111.0% ^{***}

Source: CHA analysis of the City's data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level.

** Indicates statistical significance at the 0.01 level.

* Indicates statistical significance at the 0.05 level.

^ Indicates substantive significance.

Because of the relatively high disparity ratio for Asian- and White woman-owned firms, we conducted further analysis of the utilization of these groups and found that dollars were concentrated in a few NAICS codes that were a relatively large portion of the City's spend during the study period. We therefore do not conclude that Asian- and White women-owned firms do not continue to need the remedial intervention of contract goals.

D. Analysis of Economy-Wide Race and Gender Disparities in the City of Arlington's Market

We explored the Census Bureau data and literature relevant to how discrimination in the City's industry market and throughout the wider Dallas Fort Worth metropolitan area 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:

- Data from the Census Bureau's *Survey of Business Owners*. This set indicates very 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), or the payroll of employer firms.
- Data from the Census Bureau's *American Community Survey* ("ACS"). This set indicates that Blacks, Hispanics and White women were underutilized relative to White men. Controlling for other factors relevant to business outcomes,

wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men.

- Results from the Federal Reserve Board and the U.S. Small Business Administration's Surveys of Small Business Finances. 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.
- Results from the Kaufmann Firm Survey, "Disparities in Capital Access Between Minority and Non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs". The report found that "low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs". Minority-owned firms are less likely to receive loans than non-minority owned firms regardless of firm size; when minority-owned firms do receive financing, it is for less money and at a higher interest rate than non-minority owned firms regardless of the size of the firm; minority owned firms are more likely to be denied loans; MBEs pay higher interest rates for business loans; minority-owned firms receive smaller equity investments than non-minority owned firms even when controlling for detailed business and owner characteristics; and 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.
- Results from the Federal Reserve Board's Small Business Credit Surveys from 2016 and 2018. These Surveys found significant barriers to minority and woman-owned firms seeking commercial credit, especially for Black-owned firms. For example, Black-owned firm application rates for new funding were 10 percentage points higher than White-owned firms but their approval rates were 19 percentage points lower. Further, Black-owned firms were nearly twice as likely to be turned down completely compared to White-owned businesses.
- The literature on barriers to access to the development of human capital. This research 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.

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 market-

place discrimination without some type of affirmative intervention. Taken together with anecdotal data, this is the type of proof that addresses whether, in the absence of M/WBE contract goals, the City will be a passive participant in the discriminatory systems found throughout its industry market.

E. Qualitative Evidence of Race and Gender Barriers in the City of Arlington’s Overall Market

1. The City of Arlington’s Local and MWBE Policy

The City of Arlington adopted its Local and MWBE Policy in 2013. The Policy set a 20 percent aspirational goal for the utilization of minority- and woman-owned firms on the City’s construction and professional services contracting activities. In May of 2016, the City Council increased this goal to 25 percent and updated the policy to require more reporting from prime contractors. The Policy covers all City departments.

The MWBE Coordinator is the primary administrator of the Policy. The Coordinator serves as an active partner with City departments to ensure that competitive bidding practices are followed and that Local and M/WBE communities are engaged in executing the provisions of the policy. The M/WBE Coordinator’s role encompasses all aspects of the Policy’s implementation, development of standards and procedures, certification verification, monitoring and reporting, development of outreach and supportive services opportunities and pre and post solicitation processes.

The City accepts MBE and WBE certifications from the North Central Texas Regional Certification Agency (“NCTRCA”), HUB, the Texas Department of Transportation (“TxDOT”), the Dallas Fort Worth Minority Supplier Development Council (“DFWMSDC”), and the Woman’s Business Council Southwest (“WBCSW”).

The City has developed several initiatives to facilitate the utilization of M/WBEs. Initiatives include an online supplier database, language in bid packages encouraging the use of M/WBEs, a wide range of outreach events, partnerships with local advocacy agencies and business organizations and resources to assist small businesses.

2. Business Owners’ Experiences

In addition to quantitative data, the courts look to anecdotal evidence of firms’ marketplace experiences to evaluate whether the effects of current or past discrimination continue to impede opportunities for M/WBEs, such that race-

conscious measures are necessary to ensure a level playing field for all firms. To explore this type of anecdotal evidence of possible discrimination against minorities and women in the City of Arlington's geographic and industry markets and the effectiveness of its current procurement policies, we conducted a public webinar and small group business owner and stakeholder interviews in person. Thirty-four individuals participated. The following are brief summaries of the views expressed over the many sessions by numerous participants.

Minority- and Woman-Owned Businesses

- Most minority and woman owners reported that they continue to face barriers to full and fair opportunities to compete because of their race or gender.
- Discriminatory attitudes, stereotypes and negative perceptions of their qualifications, professionalism and capabilities from other business owners negatively impact M/WBEs. There can be a stigma to being an MBE because the assumption is that minority firms are less qualified. While sometimes subtle, these biases about minorities' and women's lack of competence affect all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. M/WBEs often encounter a closed network.
- There remains a "good ole boy" network that can exclude women and people of color. Access to business networks was seen as key to success in obtaining work in general and from the City in particular.
- Many participants described entrenched relationships at the City as major impediments to obtaining work.
- Several owners reported that the City prefers to work with large, national "name" firms.
- "Debriefings" were not offered to professional service firms, so M/WBEs and other small firms cannot learn how to improve their submissions.
- Contract size is a major impediment to M/WBEs performing work for the City, especially as prime vendors. "Unbundling" contracts into smaller scopes or less complex scopes was suggested as a way to increase opportunities for M/WBEs.
- Prime vendor work is especially difficult to obtain.
- Many M/WBEs found it difficult to access information on City opportunities or to network with City staff.
- More targeted outreach and interaction with City contracting officers was suggested by several interviewees.

- These types of barriers led minorities and women to almost unanimous agreement that M/WBE goals will be necessary to level the playing field and equalize opportunities on City prime contracts and subcontracts.
- Some M/WBEs were hopeful that the study and new City efforts will benefit their communities.

Majority-Owned Businesses

- We also sought input from non-diverse firms about their experiences with the city's M/WBE policy. General contractors overall reported while the City sets an aspirational goal of 25 percent M/WBE participation on construction and professional services contracts, they rarely meet that target.
- General contractors often found it difficult or infeasible to use M/WBEs. They reported there are not sufficient qualified firms available to do the work.
- Some objected to subcontracting work they would prefer to self-perform in order to meet goals.
- Several construction general contractors stated that low price governs their selection of subcontractors. Using a certified firm that may cost more violates the sanctity of the bidding process.
- A few general contractors stated that some MBEs do shoddy work.
- Others stated they use M/WBEs whenever they are qualified and are price competitive.
- Several prime contractors had advice for the City about revising its race- and gender-conscious policy. Contract specific M/WBE goals, rather than a blanket or "standard" goal, would tailor the requirements to the scopes of work of the project.
- While not opposed to a new initiative, they cautioned that the standards must be flexible, with reasonable paperwork requirements.
- Some participants questioned the need for any program. Others acknowledged that most of the general contractor owners and representatives got their start in the construction industry through family connections.

F. Recommendations⁹

The quantitative and qualitative data presented in this study provide a thorough examination of whether M/WBEs operating in the City of Arlington’s geographic and procurement markets have full and fair opportunities to compete for its prime contracts and associated subcontracts. The study results support the City’s compelling interest in implementing a race- and gender-conscious contracting program. The record— both quantitative and qualitative— establishes that M/WBEs in the City’s market area continue to experience significant disparities in their access to City contracts and private sector opportunities and to the resources necessary for business success. These results provide a strong basis for the use of narrowly tailored remedial race- and gender-based measures to ensure equal opportunities for all firms to do business with The City of Arlington.

The City has initiated some efforts to level the playing field. It has a formal Local and M/WBE Policy that sets an overall, aspirational goal of 25 percent M/WBE participation in City contracts. The City also provides information on how to conduct business with the City and engages in outreach efforts. However, much more could be done. In our judgment, the results of this report provide the constitutionally required information to sustain a new and broad approach to contracting equity and inclusion.

As a general matter, the City should model its program on the elements of the Disadvantaged Business Enterprise (“DBE”) Program for federally-assisted transportation contracts. Courts have pointed to an agency’s reliance on Part 26 as a guide as evidence that the local agency’s program is constitutionally narrowly tailored and employs best practices.

Based on this case law and national best practices for M/WBE programs, we recommend the following elements of a narrowly tailored M/WBE program:

1. Implement Race- and Gender-Neutral Measures

The courts require that governments use race- and gender-neutral approaches to the maximum feasible extent to address identified discrimination. This is a critical element of narrowly tailoring the program, so that the burden on non-M/WBEs is no more than necessary to achieve the City’s remedial purposes. Increased participation by M/WBEs through race-neutral measures will also reduce the need to set M/WBE contract goals and assist firms to obtain prime contracts with the City.

9. Please see Chapter VI.

The following enhancements of the City's current efforts, based on the business owner interviews, the input from senior City management, and national best standards for M/WBE programs, will help to meet these standards.

Fully Implement an Electronic Contracting Data Collection, Monitoring and Notification System: A fully functional system is the most critical first step that the City should take. There was no centralized database to track all the contract data needed for the study. Missing information had to be created manually.

We recommend the City procure an electronic system with the following functionality:

- Full contact information for all firms.
- Contract/project-specific goal setting using the study data.
- Utilization plan capture for prime contractor submission of subcontractor utilization plans.
- Contract compliance for certified and non-certified prime contract and subcontract payments for all formally procured contracts for all tiers of all subcontractors, both M/WBEs and non-M/WBEs.
- Program report generation that provides data on utilization by industries, race, gender, dollar amount, procurement method, etc.
- An integrated email notification and reminder engine to inform users of required actions, including reporting mandates and dates.
- Outreach tools for eBlasts and related communications, and event management for tracking registration and attendance.
- Access by authorized City staff, prime contractors and subcontractors to perform all necessary activities.

Create an Office of Business Diversity: The City should create an Office of Business Diversity¹⁰ ("Office") to oversee all efforts towards contracting diversity and inclusion. While the City's Coordinator does yeoman's work to implement the Policy, a program will require sufficient resources to be effective. This includes staff and management tools to effectively implement the new program. In general, we suggest that the Office will require at least four full time employees to successfully implement a new Program. These employees would be responsible for conducting outreach to ensure that M/WBEs have access to information about opportunities and to facilitate connections with prime ven-

10. This function can be titled in several ways (Minority and Woman Business Resources, Business Opportunities, Contracting Affirmative Action, etc.).

dors and City staff; review utilization plans to determine whether the bidder or proposer is responsive; monitor contractor compliance with program requirements, including that the certified firms are performing commercially useful functions, subcontractors are paid promptly, substitutions of certified firms are done correctly and other criteria; review contract closeout documents to determine whether the contractor has met its commitments; and provide any additional appropriate assistance to M/WBEs.

This new Office should report directly to the City Manager and have the same level of authority as other departments. This independence will signal the importance of this function and provide it with the bureaucratic stature necessary to move new initiatives forward.

It is critical that all aspects of the M/WBE program be managed and controlled by the Office. All program functions (e.g., contract goal setting, pre-award compliance evaluation including of bidders' good faith efforts to meet contract goals, contract performance monitoring, etc.) should be overseen by the Office. This will ensure that the City is following the requirements of the M/WBE program.

Several departments have the ability to issue contracts. Given the decentralized nature of Arlington's procurement process, with user departments able to procure contracts outside of Purchasing, the new Office will need to work closely with user departments. A more centralized system, overall, would make the program's operations more transparent, support consistent messaging and generate positive outcomes by reducing the number of office and individuals with which small firms must interact.

The supplier diversity Office is a facilitation function, not a direct user department. Therefore, its mission must be integrated into all City departments. To succeed, the program must be viewed as the responsibility of everyone at the City, not just the Office.

Increase Vendor Communication and Outreach to M/WBEs and Small Firms:

The City has conducted outreach events such as vendor fairs and "meet and greet" events to introduce firms to the City and small firms to larger firms with whom they might partner or subcontract. In addition, the Purchasing Division has already adopted fully electronic bidding. While these efforts have been important, new program initiatives will require increased communication with the contracting community. These events should include meetings targeted towards specific industries or communities, e.g., engineering projects.

Routinely Conduct Pre-bid or Pre-proposal Conferences: Unless the project is so routine or simple that there are not likely to be questions or issues raised by potential vendors, a pre-bid or pre-proposal conference should be conducted. To assist subcontractors to network with potential prime vendors, to be con-

sidered a responsive bidder, all primes should be required to submit their contact information to the City for public posting at least two weeks prior to the bid date so that smaller firms know how to make contacts to seek work.

Offer Special Outreach and Training on Prequalification Criteria and Process: Arlington currently requires all firms, both general contractors and subcontractors, to become prequalified to perform on City public improvements, defined as paving, drainage or water and sanitary sewer contracts. If the City chooses to continue the prequalification requirement, special outreach and training sessions could be provided to explain the criteria and process to small firms.

Conduct Special Outreach for Larger Projects: As is the case with many governments, the study revealed that M/WBEs are receiving few opportunities in several industry codes. Special outreach for larger projects should be conducted to firms in those sectors so that they are aware of opportunities and can make connections with other vendors as subcontractors or joint venture partners. Activities could include targeted emails about future contracts, matchmaking events focusing on those industries, and identification of firms that are not currently certified, but might be eligible for inclusion, to encourage applications.

Create Video and Offer Virtual Training Sessions: Some potential vendors requested training in how to do business with the City. In addition to written materials now on the website, the City could hold in virtual sessions and create training videos that provide information on all aspects of City contracting.

Focus on Reducing Barriers to M/WBE Prime Contract Awards: Interviewees reported that their firms would like to perform as prime vendors on City contracts. Several steps could be implemented:

- Develop contract specifications with an eye towards unbundling projects into less complex scopes and lower dollar values. This will permit small firms to perform and will also reduce the barriers of surety bonding and financing the jobs. Examples include maintenance and landscaping contracts, commodities purchases, professional services contracts such as information technology consulting and hardware.
- Review experience requirements with the goal of reducing them to the lowest level necessary to ensure the bidder has adequate experience, perhaps by recognizing similar, though not identical, types of work including work performed for other governments and private sector clients. Ensure that incumbents are not unduly advantaged by the terms of specifications. Consider eliminating prequalification (especially for subcontractors, which is unusual); many agencies do not prequalify, finding that the ability to procure the surety bond is sufficient to move the evaluation of a firm's qualifications from the pre-award to the post-

submission phase. Removing this agency-imposed barrier should make it easier for small firms to respond to city solicitations.

- Review surety bonding and insurance requirements so they are no greater than necessary to protect the City's interests. Steps might include reducing or eliminating insurance requirements on smaller contracts and removing the cost of the surety bonds from the calculation of the apparent lowest bidder on appropriate solicitations.
- Increase standardization of contracting language, requirements and processes across City departments. Differing bid packets, times and days for submission, contact information, etc., can burden small firms with having to learn a multiplicity of approaches. Developing uniform templates should also reduce the burden on City staff.
- Implement an electronic bidding system. Paper requirements burden all firms as well as the City. The novel coronavirus pandemic may make this essential.

Consider Partnering with Other Agencies and Local Organizations to Provide Bonding, Financing and Technical Assistance Programs: Both M/WBEs and non-M/WBEs championed services to assist M/WBEs to increase their skills and capabilities. Bonding and financing programs assist small firms by providing loans and issuing surety bonds to certified contractors, with low interest rates. Programs could also provide general banking services on favorable terms to applicant firms. In addition, technical assistance with critical business skills such as estimating, accounting, safety, marketing, legal compliance, etc., could be made available in conjunction with existing efforts of Metroplex organizations such as chambers of commerce, professional associations, community-based organizations, etc. Partnering with these types of programs will allow the City to leverage their expertise, knowledge and experience in assisting these types of businesses. Several interview participants suggested exploring a relationship with local educational institutions to provide training.

2. Adopt a Minority- and Woman-Owned Business Enterprise Program

The study's results support the determination that the City has a strong basis in evidence to implement a race- and gender-conscious M/WBE Program for all types of contracts, not just construction and professional services. The record—both quantitative and qualitative—establishes that M/WBEs in the City's market area experience significant disparities in their access to contracts without M/WBE goals, private sector opportunities and to resources necessary for business success.

The disparity results are stark. As fully discussed in Chapter III, the results for Asian-owned firms and White woman-owned firms stem from a few contracts awarded to a handful of firms. We do not take from this that these groups enjoy full and fair opportunities for City work. To the contrary, that so few businesses have managed to break through the ceiling demonstrates how difficult it is to achieve parity in an overall marketplace that remains discriminatory.

The results of the economy-wide analyses are equally compelling. Data from the Census Bureau's *Survey of Business Owners* indicate very 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), or the payroll of employer firms. Similarly, data from the Census Bureau's *American Community Survey* ("ACS") indicate that Blacks, Hispanics and White women were underutilized relative to White men.

Our interviews with 34 individuals about their experiences in the City's market area further revealed the existence of persistent barriers on the basis of race and/or gender. Many M/WBEs reported that they still encounter barriers based on race and/or gender and that without affirmative intervention to increase opportunities through contract goals, they will continue to be denied and full opportunities to compete.

This overwhelming quantitative and anecdotal evidence presents the "strong basis in evidence" that the courts require to support a race- and gender-conscious relief. Without targeted efforts to reduce discriminatory barriers, minorities and women will likely continue to face diminished opportunities because of the race or gender of the firm's owner(s). We therefore recommend the adoption of a new Program with the following major elements:

Adopt an Annual Goal for a New M/WBE Program: The City should set an annual, overall target for M/WBE utilization in City contracts (prime contracts and subcontracts combined). The weighted availability estimates in Chapter III should be the basis for consideration of overall, annual spending targets for City funds. We found the weighted availability of M/WBEs to be 29.8 percent. This can be the City's goal (or a figure rounded to a whole number) for its overall spending with certified firms across all industry categories.

Set Narrowly Tailored Contract Goals: In addition to setting an overall, annual target, the City should use the study's detailed unweighted availability estimates as the starting point for contract specific goals. As discussed in Chapter II of the study, the County's constitutional responsibility is to ensure that goals are narrowly tailored to the specifics of the project. Contract goals must reflect the availability of M/WBEs to perform the scopes of work of the project. Bidders must either meet the contract goal or demonstrate their good faith

efforts to do so. Compliance should be treated as an element of responsiveness.

We urge the City to bid some contracts without goals that it determines have significant opportunities for M/WBE participation. These “control contracts” can illuminate whether certified firms are used or even solicited in the absence of goals. The development of some “unremediated markets” data, as held by the courts, will be probative of whether the M/WBE program remains needed to level the playing field for minorities and women.

Establish Program Eligibility: We recommend that all racial and ethnic groups and White women be eligible for participation in the program on a presumptive basis. The study found that, as a group, M/WBEs continue to suffer disparities in their access to City’s contracts. Program eligibility should be limited to firms that have a business presence in the City’s market area¹¹, as established by this study, or that can demonstrate their attempts to do business within the City’s market area.

The City’s new program should review the certifications it currently accepts to ensure that the standards of the certifying agencies comport with the judicial requirement that the applicant firm must be small, and the owner of the applicant must be economically disadvantaged. It will be the City’s constitutional responsibility to ensure that the certifications it accepts are from narrowly tailored programs with demonstrated integrity.

Adopt Compliance and Monitoring Policies and Procedures: In addition to ensuring that the new M/WBE program sets narrowly tailored goals and eligibility requirements, it is essential that the City adopt contract award and performance standards for program compliance and monitoring that are likewise narrowly tailored and embody best practices. These should include:

- Clearly delineated policies and forms by which a bidder or proposer can establish that it has either met the contract goal(s) or made good faith efforts to do so.
- Rules for how participation by certified firms will be counted towards the goal(s), e.g., a firm must perform a “commercially useful function” in order to be counted for goal attainment.
- Contract monitoring policies, procedures and data collection processes that include tracking the utilization of certified and non-certified subcontractors at all tiers of performance and monitoring prompt payment obligations of prime contractors to subcontractors.

11. The market area consists of Tarrant, Dallas and Johnson Counties, Texas. See Table 3-2.

- Criteria and processes for how non-performing, certified firms can be substituted during performance.
- Contract closeout procedures and standards for sanctions for firms that fail to meet their contractual requirements under the program; and a process to appeal adverse determinations under the program that meets due process standards.

Provide Training for all City Staff with Contracting Responsibilities or Vendor Interface: It will be important for the City to provide some formal training on these proposed new program elements. This could consist of in-person sessions, as well as web-based seminars that would present answers to questions such as who is eligible; how to become certified; how to meet goals or establish good faith efforts to do so; how to use the electronic system; prompt payment obligations; subcontractor substitution; and contract close out. Information should further cover resources to assist small businesses, such as loan program, accessing local Procurement Technical Assistance Centers, and other support.

Provide Training for Vendors on the New Program: This could consist of in-person sessions, as well as web-based seminars that would present answers to questions such as who is eligible; how to become certified; how to meet goals or establish good faith efforts to do so; how to use the electronic system; prompt payment obligations; subcontractor substitution; and contract close out. Information should further cover resources to assist small businesses, such as loan program, accessing local Procurement Technical Assistance Centers, and other support.

3. Develop Performance Standards and Review Timetables

To meet the requirements of strict constitutional scrutiny and ensure that best practices in program administration continue to be applied, the City should conduct a full and thorough review of the evidentiary basis for a new M/WBE program approximately every five to seven years.

Arlington should adopt a sunset date, meaning when it will end unless reauthorized, for the M/WBE program. This is a constitutional requirement to meet the narrow tailoring test that race- and gender-conscious measures be used only when necessary. A new disparity study or other applicable research should be commissioned in time to meet the sunset date.

The City should develop quantitative performance measures for certified firms and the overall success of the program to evaluate its effectiveness in reducing the systemic barriers identified by the study. In addition to meeting the annual goal(s), possible benchmarks might include,

- The number of bids or proposals and the dollar amount of the awards;
- The goal shortfall where the bidder submitted good faith efforts to meet the contract goal; the number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type, and dollar amount of M/WBE substitutions during contract performance;
- Increased bidding by certified firms; increased prime contract awards to certified firms and;
- Increased “capacity” of certified firms as measured by bonding limits such as size of jobs or profitability.

II. LEGAL STANDARDS FOR GOVERNMENT CONTRACTING AFFIRMATIVE ACTION PROGRAMS

A. Summary of Constitutional Equal Protection Standards

To be effective, enforceable, and legally defensible, a race-based affirmative action program for public sector contracts, regardless of funding source, must meet the judicial test of constitutional “strict scrutiny”. Strict scrutiny is the highest level of judicial review. 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.
2. Any remedies adopted must be “narrowly tailored” to that discrimination; the program must be directed at the types and depth of discrimination identified.¹²

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

1. Statistical evidence of the underutilization of minority or women firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are disparity indices, comparable to the type of “disparate impact” analysis used in employment discrimination cases.
2. 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, comparable to the “disparate treatment” analysis used in employment discrimination cases.¹³ Anecdotal data can

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

13. *Id.* at 509.

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.

In *Adarand v. Peña*,¹⁴ the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the United States Department of Transportation (“USDOT”) Disadvantaged Business Enterprise (“DBE”) program for federally assisted transportation contracts. Just as in 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.¹⁵

Most federal courts, including the Fifth Circuit,¹⁶ have subjected preferences for Woman-Owned Business Enterprises (“WBEs”) to “intermediate scrutiny”.¹⁷ Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related to the objective”.¹⁸ However, appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program¹⁹ or held that the results would be the same under strict scrutiny.²⁰

14. *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995) (“*Adarand III*”).

15. See, for example, *Croson*, 488 U.S. at 492-493; *Adarand III*, 515 U.S. 200, 227; see generally *Fisher v. University of Texas*, 133 S. Ct. 2411 (2013).

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

17. See, e.g., *Associated Utility Contractors of Maryland v. Mayor of Baltimore*, 83 F. Supp. 2d 613, 620 (D. Md. 2000); *Scott*, 199 F.3d at 206, 215, *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895 (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 Association 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).

18. *Cf. United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).

19. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007), cert. denied 15-1827, June 26, 2017 (“*Northern Contracting III*”).

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

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review called “rational basis” scrutiny.²¹ 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.²² 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.²³ 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.²⁴

Unlike most legal challenges, the defendant bears the initial burden of producing “strong evidence” in support of its race-conscious program.²⁵ 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 action program is unconstitutional.²⁶ “[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.”²⁷

A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”²⁸ 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.²⁹ 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. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.”³⁰ When the statistical information is sufficient to support the inference of discrimi-

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21. See, generally, *Coral Construction Co v. King County*, 941 F. 2d 910 (9th Cir. 1991); *Equal. Found. v. City of Cincinnati*, 128 F. 3d 289 (6th Cir. 1997).
 22. *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).
 23. *Heller v. Doe*, 509 U.S. 312, 320 (1993).
 24. The standard applicable to status based on sexual orientation of gender identity has not yet been clarified by the courts.
 25. *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).
 26. *Scott*, 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*”).
 27. *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 916 (11th Cir. 1997) (“*Engineering Contractors II*”).
 28. *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) (10th Cir. 2003) (“*Concrete Works IV*”).
 29. *H.B. Rowe Co., Inc. v. Tippet*, 615 F.3d 233 (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), affirmed, 840 F.3d 932 (7th Cir. 2016) (“*Midwest Fence II*”).

nation, the plaintiff must prove that the statistics are flawed.³¹ 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.³²

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. High quality 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 defensible programs.

B. Elements of Strict 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, 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 discrimination. Strict scrutiny requires that a government entity prove both its "compelling governmental interest" in remediating identified discrimination based upon "strong evidence" 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 "race-based" government programs. The City's "set-aside" Plan required prime contractors awarded City construction contracts to subcontract at least 30 percent of the project to Minority-Owned Business Enterprises ("MBEs"). A business located anywhere in the nation was eligible to participate so long as it was at least 51 percent

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

31. *Coral Construction*, 941 F. 2d at 921; *Engineering Contractors II*, 122 F.3d at 916

32. *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1522-1523 (10th Cir. 1994) ("*Concrete Works II*"); *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).

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:

[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]f 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."³³

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.³⁴ 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.³⁵ The City could not rely upon the disparity between its utilization of MBE prime contractors and

33. 488 U.S. at 491-92.

34. 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.").

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

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.

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."³⁶

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."³⁷

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.³⁸ The Court noted that the City "does not even know how many MBEs

36. *Croson*, 488 U.S. at 510.

37. *Id.*

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

in the relevant market are qualified to undertake prime or subcontracting work in public construction projects.”³⁹

Apparently 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 non-minority 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 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.⁴⁰

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.⁴¹ 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.⁴²

39. *Croson*, 488 U.S. at 502.

40. *Id.* at 509 (citations omitted).

41. *Id.* at 502.

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 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*.⁴³

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".

42. See, for example, *Northern Contracting III*, 473 F.3d at 723.

43. *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").

C. Establishing a “Strong Basis in Evidence” for the City of Arlington’s Minority- and Woman-Owned Business Enterprise Program

The case law on the DBE program should guide the City’s program for locally funded contracts. Whether the program is called an M/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 Minority- and Woman-Owned Business Enterprises (“M/WBEs”) will be judged against this legal framework.⁴⁴ We note that 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 low 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 experiences with discriminatory conduct, policies or systems.⁴⁵ 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.⁴⁶

Crosby’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.”⁴⁷

44. *Midwest Fence II*, 840 F.3d. at 953.

45. *Adarand VII*, 228 F.3d at 1166 (“statistical and anecdotal evidence are appropriate”).

46. *Id.*

47. *Concrete Works IV*, 321 F.3d at 976.

The City of Arlington 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.”⁴⁸ 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 evidentiary elements courts have looked to in examining the basis for and determining the constitutional validity of race- and gender-conscious local programs and the steps in performing a disparity study necessary to meet those elements.

1. Define the City of Arlington’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.⁴⁹ The City 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 area is the government’s jurisdictional boundaries.⁵⁰ 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.⁵¹ 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.⁵² This produces the utilization results within the geographic market area.

48. *Id.* at 977.

49. *Croson*, 488 U.S. at 508.

50. *Concrete Works II*, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore “economic reality”).

51. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>. (“National Disparity Study Guidelines”)

52. *Id.* at pp. 50-51.

2. Determine the City of Arlington's Utilization of M/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:

1. Develop the initial contract data files. This involves first gathering the City's records of its payments to prime contractors, and if available, associated subcontractors.
2. If the volume of contracts is too large to reconstruct in its entirety, a representative sample of the initial data file should be developed.
3. In developing a statistically representative sample, two parameters are important: the confidence level and the confidence interval. The *confidence level* represents how certain it is that the sample is representative of the universe. A widely accepted confidence level is 95 percent; this means that we would be 95 percent confident that the sample is representative of the universe. The *confidence interval* indicates the margin of error of the results. (A margin of error statistic is often reported in political polls *e.g.*, a candidate should receive 55 percent of the total vote; but because the margin of error is five percent, the actual vote total might range between 60 percent and 50 percent). In the development of a study sample, it is important to have a confidence interval that is fairly high. Five percent has been accepted by the courts in challenges to M/W/DBE programs.
4. 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 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 percent 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.

3. Determine the Availability of M/WBEs in the City of Arlington'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.

There are three components to the process of estimating availability: the compilation of the D/M/WBE Master Directory; the determination of the constrained product market; and the extraction of firms from the Dun & Bradstreet *MarketPlace*/Hoovers database. This analysis involves the following steps:

1. The development of the Merged Business Availability List. Three data sets are used to develop the Merged Business Availability List:
 - a. The firms in the M/WBE Master Directory. This methodology includes both certified firms and non-certified firms owned by minorities or women.⁵³ 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.
 - b. The firms contained in the City's contract data file. 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.
 - c. Firms extracted from the Dun & Bradstreet *MarketPlace*/Hoovers database, using the relevant geographic and product market definitions.
2. The estimation of unweighted availability. 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.⁵⁴ This will produce estimates of woman and minority business availability in the city's markets for each NAICS code in the product

53. See "National Disparity Study Guidelines," Chapter III, pp. 33-34.

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. The estimation of weighted availability. 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 Arlington 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.

This adjustment is important for two reasons. First, disparity analyses compare utilization and availability. The utilization metrics are shares of dollars, while 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 usage of available firms must be conducted with an understanding of what NAICS codes received what share of agency spending. Without 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 approach has several benefits. 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.⁵⁵

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 busi-

54. 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.

55. 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.

nesses 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 agency. 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 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.”⁵⁶

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.⁵⁷ Additionally, *Croson* does not “require disparity studies that measure whether construction firms are able to perform a *particular contract*.”⁵⁸

There are also practical reasons not to attempt to circumscribe availability through “capacity” limitations. First, there is no agreement on what variables

56. *Concrete Works IV*, 321 F.3d at 983 (emphasis in the original).

57. 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).

58. *Croson*, 488 U.S. at 508 (emphasis in the original).

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 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 IV, not at the first stage of the analysis, to reduce 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 V. 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 VI.

4. Examine Disparities between the City of Arlington's Utilization of M/WBEs and M/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.⁵⁹

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.⁶⁰ An index less than 100 percent 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 percent rule” that a ratio less than 80 percent presents a *prima facie* case of discrimination.⁶¹ Where possible, statistical techniques are applied to examine whether any disparities are significant. 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” analysis.⁶²

The City of Arlington 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.⁶³

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”

59. *Croson*, 488 U.S. at 509; see *Webster*, 51 F.Supp.2d at 1363, 1375.

60. *Scott*, 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).

61. 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 F.3d at 914.

62. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868 (Sept. 8, 2005) (“*Northern Contracting II*”) (IDOT’s custom census approach was supportable because “discrimination in the credit and bonding markets may artificially reduce the number of M/WBEs”).

63. *Concrete Works IV*, 321 F. 3d at 971.

because firms could defeat the remedial efforts simply by refusing to cease discriminating.⁶⁴

Arlington 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.⁶⁵

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.⁶⁶

5. Analyze Economy-Wide Evidence of Race- and Gender-Based Disparities

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs 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

64. *Id.* at 973 (emphasis in the original).

65. *Id.* at 971.

66. *Id.* at 973.

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.⁶⁷

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.”⁶⁸ 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”.

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.⁶⁹ 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

67. *Adarand VII*, 228 F.3d at 1147, 1168-69.

68. *Id.*

69. *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*”).

of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the 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.⁷⁰

6. Evaluate Anecdotal Evidence of Race- and Gender-Based Barriers

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.”⁷¹ 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.⁷² 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.”⁷³ “[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.”⁷⁴

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. “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—

70. *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.”).

71. *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

72. *Adarand VII*, 228 F.3d at 1168-1172.

73. *Concrete Works II*, 36 F.3d at 1520,1530.

74. *Engineering Contractors II*, 122 F.3d at 926.

be verified because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”⁷⁵ 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.”⁷⁶

D. Narrowly Tailoring a Minority-Owned and Woman-Owned Business Enterprise Procurement Program for the City of Arlington

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 U.S. Department of Transportation’s Disadvantaged Business Enterprise Program⁷⁷ have been upheld using that framework.⁷⁸ The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

- The efficacy of race-neutral remedies at overcoming identified discrimination;
- The relationship of numerical benchmarks for government spending to the availability of minority- and woman-owned firms and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;
- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and
- The duration of the program.⁷⁹

75. *Id.* at 249.

76. *Concrete Works IV*, 321 F.3d at 989.

77. 49 C.F.R. Part 26.

78. *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).

79. *United States v. Paradise*, 480 U.S. 149, 171 (1987); *see also Sherbrooke*, 345 F.3d at 971-972.

1. Consider Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are necessary components of a defensible and effective M/WBE program⁸⁰ and the failure to seriously consider such remedies has been fatal to several programs.⁸¹ 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.⁸² Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.⁸³

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.⁸⁴ 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 remedies may be utilized.⁸⁵ 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.”⁸⁶

80. *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).

81. 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.

82. See 49 CFR § 26.51.0.

83. *Croson*, 488 U.S. at 503 n.3; *Webster*, 51 F.Supp.2d at 1380.

84. See, e.g., *Sherbrooke*, 345 F.3d. at 973

85. *Grutter*, 529 U.S. at 339.

86. *Coral Construction*, 941 F.2d at 923.

2. Set Targeted M/WBE Goals

Numerical goals or benchmarks for M/WBE participation must be substantially related to their availability in the relevant market.⁸⁷ For example, the DBE program regulations require 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.⁸⁸ "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*."⁸⁹

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 M/WBE or DBE goal that includes all racial and ethnic minorities and non-minority women,⁹⁰ to separate goals for each minority group and women.⁹¹

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."⁹² However, sheer speculation cannot form the basis for an enforceable measure.⁹³

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. 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,⁹⁴ 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, overall goals, there is

87. *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 Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore, et al.*, 83 F.Supp.2d 613, 621 (D. Md. 2000) ("*Baltimore I*").

88. 49 C.F.R. § 26.45 (b)

89. *Id.*

90. *See* 49 C.F.R. §26.45(h) (overall goal must not be subdivided into group-specific goals).

91. *See Engineering Contractors II*, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

92. *Sherbrooke*, 345 F.3d. at 972.

93. *Builders Association 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).

94. *See Sherbrooke*, 345 F.3d at 972; *Coral Construction*, 941 F.2d at 924.

no option to avoid meeting narrow tailoring because to do so would be more burdensome.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.⁹⁵ 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.⁹⁶ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.⁹⁷ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.⁹⁸ 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.

The groups to include must be based upon the evidence.⁹⁹ 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".¹⁰⁰ 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."¹⁰¹ 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.¹⁰² Therefore, remedies should be limited to those firms owned

95. 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").

96. 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.").

97. *Croson*, 488 U.S. at 508; see also *Adarand VII*, 228 F.3d at 1181.

98. See, e.g., *Sherbrooke*, 345 F.3d. at 972; *Webster*, 51 F. Supp. 2d at 1354, 1380.

99. *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).

100. *Webster*, 51 F.Supp.2d at 1380-1381.

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

by the relevant minority groups, as established by the evidence, that have suffered actual harm in the market area.¹⁰³

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 must meet the Small Business Administration's size definitions for its industry, have been central to the courts' holdings that it is narrowly tailored.¹⁰⁴ "[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."¹⁰⁵ Further, anyone must be able to challenge the disadvantaged status of any firm.¹⁰⁶

5. Evaluate the Burden on Third Parties

Failure to make "neutral" changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs.¹⁰⁷ However, "innocent" parties can be made to share some of the burden of the remedy for eradicating racial discrimination.¹⁰⁸ 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".

Burdens must be proven and cannot constitute mere speculation by a plaintiff.¹⁰⁹ "Implementation of the race-conscious contracting goals for which [the federal authorizing legislation] provides will inevitably result in bids submitted

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

103. *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.").

104. *Sherbrooke*, 345 F.3d at 973; see also *Gutter*, 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).

105. *Sherbrooke*, 345 F.3d. at 973.

106. 49 C.F.R. §26.87.

107. See *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County*, 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) ("*Engineering Contractors I*") (County chose not to change its procurement system).

108. *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.").

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.”¹¹⁰

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,¹¹¹ and the regulations do not limit the application of the program to only subcontracts.¹¹² 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.¹¹³

109. *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).

110. *Western States*, 407 F.3d at 995.

111. 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.”).

112. 49 C.F.R. § 26.45(a)(1).

113. *Northern Contracting II*, 2005 U.S. Dist. LEXIS 19868 at 74.

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.”¹¹⁴ 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 2004.¹¹⁵ How old is too old is not definitively answered,¹¹⁶ 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.¹¹⁷ 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.”¹¹⁸

114. *Adarand III*, 515 U.S. at 238.

115. *BAGC v. Chicago*, 298 F.Supp.2d at 739.

116. *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.”).

117. *See Western States*, 407 F.3d at 995.

118. *Rowe*, 615 F.3d at 253.

III. UTILIZATION, AVAILABILITY AND DISPARITY ANALYSES FOR THE CITY OF ARLINGTON

A. Contract Data Overview

We analyzed contract data for fiscal years 2014 through 2018 for the City of Arlington's ("the City") contracts. To conduct this analysis, 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; NAICS codes of prime contractors and subcontractors; and other subcontractor information, including payments/gross receipts, race, gender; etc. The resulting Final Contract Data File (FCDF) was used for the analysis of the utilization of the City's contracts.

The City's contracts contained 449 contracts, with a net paid amount of \$420,437,823.76; subcontractors received 629 contracts. Prime contractors received \$315,204,458.38 of the net paid amount; subcontractors received \$105,233,364.38 of the net paid amount.

The FCDFs were used to determine the geographic and product markets for the analyses. They were also used to estimate the utilization of M/WBEs on the City's contracts. We then used the FCDFs, in combination with other databases (as described below), to calculate M/WBE unweighted and weighted availability in the City's marketplace by funding source and contract type.

For purposes of annual goal setting, the availability estimates are weighted by the City's actual spending patterns, as determined by the NAICS codes it utilized. Weighting availability results in a more accurate picture of which firms are available to participate in the agency's opportunities. For example, high availability in a NAICS code in which minimal dollars are spent would give the impression that there are more M/WBEs that can perform work on agency contracts than are actually ready, willing and able. Conversely, a low availability in a high dollar scope would understate the potential dollars that could be spent with M/WBEs.¹¹⁹

119. This is why the USDOT "Tips for Goal Setting" urges recipients to weight their headcount of firms by dollars spent. See <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

B. Utilization and Availability Analysis for the City of Arlington's Contracts

1. The Product and Geographic Markets for the City of Arlington's Contracts

As discussed in Chapter II, a defensible disparity study must determine empirically the industries that comprise the City's product or industry market. The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry Classification System ("NAICS") codes¹²⁰ that make up at least 75 percent of the prime contract and subcontract payments for the study period.¹²¹

a. The Unconstrained Product Market for the City's Contracts

We began our analysis with the 148 NAICS codes contained in the FCDF for the City's contracts. Table 3-1 presents data on these codes.

Table 3-1: Industry Percentage Distribution of the City's Contracts by Dollars

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237310	Highway, Street, and Bridge Construction	33.3%	33.3%
237110	Water and Sewer Line and Related Structures Construction	9.5%	42.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.6%	50.3%
541330	Engineering Services	7.2%	57.6%
237990	Other Heavy and Civil Engineering Construction	6.1%	63.7%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.7%	68.4%
561730	Landscaping Services	2.8%	71.2%
325180	Other Basic Inorganic Chemical Manufacturing	1.7%	72.9%
811111	General Automotive Repair	1.6%	74.6%
541320	Landscape Architectural Services	1.5%	76.0%

120. www.census.gov/eos/www/naics.

121. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346> ("National Disparity Study Guidelines").

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	1.4%	77.4%
541512	Computer Systems Design Services	1.3%	78.7%
541310	Architectural Services	1.1%	79.8%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.9%	80.7%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.9%	81.5%
332312	Fabricated Structural Metal Manufacturing	0.8%	82.3%
561320	Temporary Help Services	0.7%	83.0%
238990	All Other Specialty Trade Contractors	0.7%	83.7%
561210	Facilities Support Services	0.7%	84.4%
444190	Other Building Material Dealers	0.6%	85.0%
238910	Site Preparation Contractors	0.6%	85.5%
485310	Taxi Service	0.6%	86.1%
524210	Insurance Agencies and Brokerages	0.6%	86.7%
238160	Roofing Contractors	0.5%	87.2%
561720	Janitorial Services	0.5%	87.7%
485999	All Other Transit and Ground Passenger Transportation	0.5%	88.2%
621111	Offices of Physicians (except Mental Health Specialists)	0.4%	88.6%
238310	Drywall and Insulation Contractors	0.4%	89.0%
238140	Masonry Contractors	0.4%	89.5%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.4%	89.9%
562119	Other Waste Collection	0.4%	90.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.4%	90.6%
541370	Surveying and Mapping (except Geophysical) Services	0.3%	91.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.3%	91.3%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	0.3%	91.5%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
238110	Poured Concrete Foundation and Structure Contractors	0.3%	91.8%
323111	Commercial Printing (except Screen and Books)	0.3%	92.1%
238150	Glass and Glazing Contractors	0.3%	92.3%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.3%	92.6%
524292	Third Party Administration of Insurance and Pension Funds	0.3%	92.9%
541380	Testing Laboratories	0.2%	93.1%
812930	Parking Lots and Garages	0.2%	93.4%
327390	Other Concrete Product Manufacturing	0.2%	93.6%
423840	Industrial Supplies Merchant Wholesalers	0.2%	93.8%
488490	Other Support Activities for Road Transportation	0.2%	94.1%
238350	Finish Carpentry Contractors	0.2%	94.3%
923120	Administration of Public Health Programs	0.2%	94.5%
339920	Sporting and Athletic Goods Manufacturing	0.2%	94.7%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.2%	94.9%
562910	Remediation Services	0.2%	95.0%
811219	Other Electronic and Precision Equipment Repair and Maintenance	0.2%	95.2%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.2%	95.4%
238320	Painting and Wall Covering Contractors	0.2%	95.6%
334310	Audio and Video Equipment Manufacturing	0.2%	95.8%
325311	Nitrogenous Fertilizer Manufacturing	0.2%	95.9%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.1%	96.1%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.1%	96.2%
238340	Tile and Terrazzo Contractors	0.1%	96.4%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
238390	Other Building Finishing Contractors	0.1%	96.5%
561990	All Other Support Services	0.1%	96.6%
484110	General Freight Trucking, Local	0.1%	96.8%
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0.1%	96.9%
541820	Public Relations Agencies	0.1%	97.0%
926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	0.1%	97.2%
812332	Industrial Launderers	0.1%	97.3%
541420	Industrial Design Services	0.1%	97.4%
541511	Custom Computer Programming Services	0.1%	97.5%
531320	Offices of Real Estate Appraisers	0.1%	97.6%
541612	Human Resources Consulting Services	0.1%	97.7%
221310	Water Supply and Irrigation Systems	0.1%	97.8%
333120	Construction Machinery Manufacturing	0.1%	97.9%
238330	Flooring Contractors	0.1%	97.9%
561612	Security Guards and Patrol Services	0.1%	98.0%
332323	Ornamental and Architectural Metal Work Manufacturing	0.1%	98.1%
337212	Custom Architectural Woodwork and Millwork Manufacturing	0.1%	98.2%
541611	Administrative Management and General Management Consulting Services	0.1%	98.2%
541620	Environmental Consulting Services	0.1%	98.3%
512110	Motion Picture and Video Production	0.1%	98.4%
424910	Farm Supplies Merchant Wholesalers	0.1%	98.4%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.1%	98.5%
236210	Industrial Building Construction	0.1%	98.6%
332322	Sheet Metal Work Manufacturing	0.1%	98.6%
237120	Oil and Gas Pipeline and Related Structures Construction	0.1%	98.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.1%	98.7%
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	0.1%	98.8%
561790	Other Services to Buildings and Dwellings	0.1%	98.8%
327410	Lime Manufacturing	0.05%	98.9%
238120	Structural Steel and Precast Concrete Contractors	0.04%	98.9%
333921	Elevator and Moving Stairway Manufacturing	0.04%	99.0%
541110	Offices of Lawyers	0.04%	99.0%
922160	Fire Protection	0.04%	99.1%
541350	Building Inspection Services	0.04%	99.1%
335129	Other Lighting Equipment Manufacturing	0.04%	99.1%
561611	Investigation Services	0.04%	99.2%
518210	Data Processing, Hosting, and Related Services	0.04%	99.2%
562998	All Other Miscellaneous Waste Management Services	0.04%	99.3%
332510	Hardware Manufacturing	0.04%	99.3%
424590	Other Farm Product Raw Material Merchant Wholesalers	0.03%	99.3%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.03%	99.4%
541430	Graphic Design Services	0.03%	99.4%
441222	Boat Dealers	0.03%	99.4%
712190	Nature Parks and Other Similar Institutions	0.03%	99.4%
335314	Relay and Industrial Control Manufacturing	0.03%	99.5%
541211	Offices of Certified Public Accountants	0.03%	99.5%
237210	Land Subdivision	0.03%	99.5%
711510	Independent Artists, Writers, and Performers	0.03%	99.6%
541840	Media Representatives	0.03%	99.6%
339950	Sign Manufacturing	0.03%	99.6%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.03%	99.6%
488410	Motor Vehicle Towing	0.03%	99.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
562991	Septic Tank and Related Services	0.03%	99.7%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	0.03%	99.7%
511210	Software Publishers	0.02%	99.7%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.02%	99.8%
212312	Crushed and Broken Limestone Mining and Quarrying	0.02%	99.8%
424410	General Line Grocery Merchant Wholesalers	0.02%	99.8%
611710	Educational Support Services	0.02%	99.8%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	0.01%	99.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.01%	99.8%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.01%	99.9%
541690	Other Scientific and Technical Consulting Services	0.01%	99.9%
541219	Other Accounting Services	0.01%	99.9%
321999	All Other Miscellaneous Wood Product Manufacturing	0.01%	99.9%
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	0.01%	99.9%
624230	Emergency and Other Relief Services	0.01%	99.9%
324121	Asphalt Paving Mixture and Block Manufacturing	0.01%	99.9%
541910	Marketing Research and Public Opinion Polling	0.01%	99.9%
327320	Ready-Mix Concrete Manufacturing	0.01%	99.9%
337920	Blind and Shade Manufacturing	0.01%	99.9%
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	0.01%	99.95%
111421	Nursery and Tree Production	0.01%	99.96%
561710	Exterminating and Pest Control Services	0.01%	99.96%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.005%	99.97%
332919	Other Metal Valve and Pipe Fitting Manufacturing	0.005%	99.97%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
519110	News Syndicates	0.004%	99.98%
541360	Geophysical Surveying and Mapping Services	0.004%	99.98%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.003%	99.98%
423390	Other Construction Material Merchant Wholesalers	0.003%	99.99%
115115	Farm Labor Contractors and Crew Leaders	0.003%	99.99%
926110	Administration of General Economic Programs	0.002%	99.99%
517312	Wireless Telecommunications Carriers (except Satellite)	0.002%	99.99%
237130	Power and Communication Line and Related Structures Construction	0.002%	99.99%
326191	Plastics Plumbing Fixture Manufacturing	0.001%	99.996%
561410	Document Preparation Services	0.001%	99.997%
541990	All Other Professional, Scientific, and Technical Services	0.001%	99.998%
238130	Framing Contractors	0.001%	99.999%
321113	Sawmills	0.001%	99.9998%
325520	Adhesive Manufacturing	0.0002%	100.000%
TOTAL			100.0%

Source: CHA analysis of the City's Data.

b. The Geographic Market for the City's Contracts

The federal courts require that an 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.¹²² To determine the relevant geographic market area, we applied the standard of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.¹²³ Location was determined by ZIP code and aggregated into counties as the geographic unit.

122. *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").

123. *National Disparity Study Guidelines*, p. 49.

Table 3-2 lists the three counties which capture approximately 82 percent of the FCDF dollars and their share of FCDF dollars.

Table 3-2: Share of the Final Contract Data File Received by the Counties within the City's Geographical Market

County	Pct Contract Dollars
Tarrant County, TX	45.3%
Dallas County, TX	30.3%
Johnson County, TX	6.4%

Source: CHA analysis of the City's Data.

We therefore used these three counties as the geographic market for the analysis of the City's contracts.

2. The Utilization of M/WBEs on the City's Contracts

Having determined the City's product and geographic market area (and, therefore, the agency's *constrained* product market), the next step was to determine the dollar value of the City's utilization of M/WBEs¹²⁴ as measured by payments to prime firms and subcontractors and disaggregated by race and gender. The City did not collect data for all subcontractors, as well as other records critical for the study. We therefore had to obtain missing data from prime vendors, a lengthy process, and reconstruct other contract records, including researching the race and gender ownership of subcontractors and assigning NAICS codes to those firms based on the scope of work performed on the City's contract.

Limiting the unconstrained product market to the boundaries of those three counties reduced the number of NAICS codes further analyzed in this study from 148 to 124. This constrained product market is called the Contract Data Utilization File and it was used to produce the next three tables.

Tables 3-3 through 3-5 present data on the utilization of contract dollars in the constrained product market. (Note the contract dollar shares in Table 3-3 are equivalent to the weight of spending in each NAICS code. These weights were used to transform data from unweighted availability to weighted availability, as discussed below).

124. We use the terms "M/WBEs" throughout this Report to include firms owned by racial or ethnic minorities and white females that are not certified as M/WBEs by an agency recognized by the City. This casts the "broad net" required by the courts, as discussed in the Legal Appendix.

Table 3-3: NAICS Code Distribution of the City's Contract Dollars

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
237310	Highway, Street, and Bridge Construction	\$134,618,656.00	39.1%
237110	Water and Sewer Line and Related Structures Construction	\$32,140,774.00	9.3%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$27,495,924.00	8.0%
541330	Engineering Services	\$27,474,570.00	8.0%
237990	Other Heavy and Civil Engineering Construction	\$19,774,366.00	5.7%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$16,322,865.00	4.7%
561730	Landscaping Services	\$11,298,421.00	3.3%
236220	Commercial and Institutional Building Construction	\$5,749,996.00	1.7%
541320	Landscape Architectural Services	\$5,316,602.00	1.5%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$3,867,503.25	1.1%
325180	Other Basic Inorganic Chemical Manufacturing	\$3,863,186.75	1.1%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$3,627,761.00	1.1%
332312	Fabricated Structural Metal Manufacturing	\$3,327,016.50	1.0%
561320	Temporary Help Services	\$2,478,505.00	0.7%
541310	Architectural Services	\$2,411,794.50	0.7%
485310	Taxi Service	\$2,354,904.75	0.7%
238160	Roofing Contractors	\$2,280,265.75	0.7%
561720	Janitorial Services	\$2,172,659.50	0.6%
238910	Site Preparation Contractors	\$1,805,260.38	0.5%
238140	Masonry Contractors	\$1,724,299.25	0.5%
562119	Other Waste Collection	\$1,664,508.75	0.5%
238990	All Other Specialty Trade Contractors	\$1,598,683.00	0.5%
541512	Computer Systems Design Services	\$1,475,113.62	0.4%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$1,390,986.12	0.4%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
541370	Surveying and Mapping (except Geophysical) Services	\$1,233,858.50	0.4%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	\$1,171,232.62	0.3%
238110	Poured Concrete Foundation and Structure Contractors	\$1,168,553.00	0.3%
323111	Commercial Printing (except Screen and Books)	\$1,115,545.12	0.3%
238150	Glass and Glazing Contractors	\$1,110,781.00	0.3%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$1,090,955.88	0.3%
812930	Parking Lots and Garages	\$1,020,380.56	0.3%
327390	Other Concrete Product Manufacturing	\$1,004,524.00	0.3%
541380	Testing Laboratories	\$998,491.00	0.3%
488490	Other Support Activities for Road Transportation	\$951,343.00	0.3%
339920	Sporting and Athletic Goods Manufacturing	\$802,275.00	0.2%
562910	Remediation Services	\$769,906.94	0.2%
238320	Painting and Wall Covering Contractors	\$741,662.12	0.2%
334310	Audio and Video Equipment Manufacturing	\$736,812.00	0.2%
423840	Industrial Supplies Merchant Wholesalers	\$724,154.94	0.2%
325311	Nitrogenous Fertilizer Manufacturing	\$690,700.94	0.2%
238350	Finish Carpentry Contractors	\$670,833.50	0.2%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$623,647.00	0.2%
238340	Tile and Terrazzo Contractors	\$591,996.00	0.2%
561990	All Other Support Services	\$564,161.75	0.2%
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	\$559,971.25	0.2%
812332	Industrial Launderers	\$519,105.88	0.2%
444190	Other Building Material Dealers	\$482,927.88	0.1%
531320	Offices of Real Estate Appraisers	\$420,000.00	0.1%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
811219	Other Electronic and Precision Equipment Repair and Maintenance	\$415,769.12	0.1%
221310	Water Supply and Irrigation Systems	\$387,298.00	0.1%
541420	Industrial Design Services	\$357,569.34	0.1%
541511	Custom Computer Programming Services	\$353,378.03	0.1%
333120	Construction Machinery Manufacturing	\$336,170.00	0.1%
238330	Flooring Contractors	\$315,596.00	0.1%
561612	Security Guards and Patrol Services	\$312,066.69	0.1%
424910	Farm Supplies Merchant Wholesalers	\$285,626.81	0.1%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	\$261,998.27	0.1%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$251,095.64	0.1%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	\$238,966.03	0.1%
236210	Industrial Building Construction	\$235,482.66	0.1%
237120	Oil and Gas Pipeline and Related Structures Construction	\$233,467.86	0.1%
327410	Lime Manufacturing	\$204,529.62	0.1%
541620	Environmental Consulting Services	\$196,628.55	0.1%
333921	Elevator and Moving Stairway Manufacturing	\$184,487.00	0.1%
541110	Offices of Lawyers	\$184,188.70	0.1%
922160	Fire Protection	\$180,845.00	0.1%
541350	Building Inspection Services	\$176,970.25	0.1%
335129	Other Lighting Equipment Manufacturing	\$172,545.72	0.1%
561611	Investigation Services	\$169,260.00	0.05%
238120	Structural Steel and Precast Concrete Contractors	\$162,948.23	0.05%
562998	All Other Miscellaneous Waste Management Services	\$160,258.53	0.05%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	\$153,590.09	0.04%
332510	Hardware Manufacturing	\$147,392.00	0.04%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
424590	Other Farm Product Raw Material Merchant Wholesalers	\$138,439.30	0.04%
541430	Graphic Design Services	\$127,280.00	0.04%
335314	Relay and Industrial Control Manufacturing	\$123,758.65	0.04%
541612	Human Resources Consulting Services	\$121,689.60	0.04%
237210	Land Subdivision	\$120,955.00	0.04%
541840	Media Representatives	\$118,478.49	0.03%
238390	Other Building Finishing Contractors	\$116,159.95	0.03%
238310	Drywall and Insulation Contractors	\$114,728.00	0.03%
488410	Motor Vehicle Towing	\$110,221.70	0.03%
562991	Septic Tank and Related Services	\$110,041.00	0.03%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	\$106,000.00	0.03%
541611	Administrative Management and General Management Consulting Services	\$91,286.14	0.03%
512110	Motion Picture and Video Production	\$89,750.00	0.03%
511210	Software Publishers	\$89,254.17	0.03%
212312	Crushed and Broken Limestone Mining and Quarrying	\$76,456.00	0.02%
424410	General Line Grocery Merchant Wholesalers	\$75,357.76	0.02%
541820	Public Relations Agencies	\$67,200.00	0.02%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	\$62,651.92	0.02%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$57,695.00	0.02%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	\$53,869.40	0.02%
541690	Other Scientific and Technical Consulting Services	\$51,450.00	0.01%
541219	Other Accounting Services	\$50,000.25	0.01%
541211	Offices of Certified Public Accountants	\$50,000.00	0.01%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
321999	All Other Miscellaneous Wood Product Manufacturing	\$41,219.00	0.01%
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	\$39,261.00	0.01%
324121	Asphalt Paving Mixture and Block Manufacturing	\$37,503.00	0.01%
327320	Ready-Mix Concrete Manufacturing	\$33,201.89	0.01%
337920	Blind and Shade Manufacturing	\$32,894.00	0.01%
111421	Nursery and Tree Production	\$28,240.00	0.01%
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	\$25,750.00	0.01%
561790	Other Services to Buildings and Dwellings	\$22,840.00	0.01%
561710	Exterminating and Pest Control Services	\$22,626.51	0.01%
236115	New Single-Family Housing Construction (except For-Sale Builders)	\$20,620.00	0.01%
332919	Other Metal Valve and Pipe Fitting Manufacturing	\$20,600.00	0.01%
484110	General Freight Trucking, Local	\$20,523.75	0.01%
332322	Sheet Metal Work Manufacturing	\$18,750.00	0.01%
423390	Other Construction Material Merchant Wholesalers	\$12,702.54	0.004%
115115	Farm Labor Contractors and Crew Leaders	\$11,207.13	0.003%
332323	Ornamental and Architectural Metal Work Manufacturing	\$9,800.00	0.003%
712190	Nature Parks and Other Similar Institutions	\$9,250.00	0.003%
926110	Administration of General Economic Programs	\$8,360.00	0.002%
517312	Wireless Telecommunications Carriers (except Satellite)	\$7,980.90	0.002%
237130	Power and Communication Line and Related Structures Construction	\$7,268.00	0.002%
326191	Plastics Plumbing Fixture Manufacturing	\$5,993.92	0.002%
541990	All Other Professional, Scientific, and Technical Services	\$4,396.00	0.001%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
238130	Framing Contractors	\$3,494.12	0.001%
321113	Sawmills	\$2,110.00	0.001%
325520	Adhesive Manufacturing	\$1,040.60	0.0003%
541910	Marketing Research and Public Opinion Polling	\$770.00	0.0002%
519110	News Syndicates	\$611.40	0.0002%
339950	Sign Manufacturing	\$365.00	0.0001%
Total		\$344,648,671.23	100.0%

Source: CHA analysis of the City's Data.

**Table 3-4: Distribution of the City's Contract Dollars by Race and Gender
(dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
111421	\$0	\$0	\$0	\$0	\$0	\$0	\$28,240	\$28,240
115115	\$0	\$0	\$0	\$0	\$11,207	\$11,207	\$0	\$11,207
212312	\$0	\$0	\$0	\$0	\$0	\$0	\$76,456	\$76,456
221310	\$0	\$0	\$0	\$0	\$0	\$0	\$387,298	\$387,298
236115	\$0	\$0	\$0	\$0	\$0	\$0	\$20,620	\$20,620
236210	\$0	\$0	\$0	\$0	\$14,269	\$14,269	\$221,214	\$235,483
236220	\$0	\$4,866,429	\$0	\$0	\$554,926	\$5,421,355	\$328,640	\$5,749,996
237110	\$0	\$0	\$0	\$0	\$20,977,765	\$20,977,765	\$11,163,008	\$32,140,774
237120	\$0	\$0	\$0	\$0	\$5,800	\$5,800	\$227,668	\$233,468
237130	\$0	\$0	\$0	\$0	\$7,268	\$7,268	\$0	\$7,268
237210	\$0	\$0	\$120,955	\$0	\$0	\$120,955	\$0	\$120,955

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
237310	\$0	\$1,689,285	\$1,431,064	\$0	\$6,229,720	\$9,350,069	\$125,268,585	\$134,618,654
237990	\$0	\$0	\$0	\$0	\$6,888,074	\$6,888,074	\$12,886,292	\$19,774,366
238110	\$0	\$0	\$0	\$0	\$1,020,650	\$1,020,650	\$147,903	\$1,168,553
238120	\$0	\$0	\$0	\$0	\$0	\$0	\$162,948	\$162,948
238130	\$0	\$0	\$0	\$0	\$0	\$0	\$3,494	\$3,494
238140	\$0	\$176,380	\$0	\$0	\$81,631	\$258,011	\$1,466,288	\$1,724,299
238150	\$0	\$0	\$0	\$0	\$1,077,681	\$1,077,681	\$33,100	\$1,110,781
238160	\$0	\$135,330	\$0	\$0	\$0	\$135,330	\$2,144,936	\$2,280,266
238190	\$0	\$0	\$0	\$0	\$780	\$780	\$3,626,981	\$3,627,761
238210	\$0	\$7,785	\$450,467	\$0	\$24,400	\$482,652	\$15,840,214	\$16,322,865
238220	\$0	\$30,853	\$188,674	\$0	\$3,587,440	\$3,806,966	\$23,688,957	\$27,495,924
238310	\$0	\$0	\$0	\$0	\$35,448	\$35,448	\$79,280	\$114,728
238320	\$0	\$120,000	\$0	\$0	\$0	\$120,000	\$621,662	\$741,662
238330	\$0	\$0	\$0	\$0	\$0	\$0	\$315,596	\$315,596
238340	\$0	\$0	\$0	\$0	\$483,859	\$483,859	\$108,137	\$591,996
238350	\$0	\$0	\$0	\$0	\$0	\$0	\$670,834	\$670,834
238390	\$0	\$0	\$0	\$0	\$94,039	\$94,039	\$22,120	\$116,160
238910	\$0	\$145,409	\$21,424	\$0	\$385,338	\$552,170	\$1,253,090	\$1,805,260
238990	\$0	\$524,774	\$0	\$0	\$262,723	\$787,496	\$811,186	\$1,598,683
321113	\$0	\$0	\$0	\$0	\$0	\$0	\$2,110	\$2,110
321999	\$0	\$0	\$0	\$0	\$24,129	\$24,129	\$17,090	\$41,219
323111	\$0	\$823,334	\$0	\$0	\$0	\$823,334	\$292,211	\$1,115,545
324121	\$0	\$0	\$0	\$0	\$0	\$0	\$37,503	\$37,503

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
325180	\$0	\$0	\$0	\$0	\$0	\$0	\$3,863,187	\$3,863,187
325311	\$0	\$0	\$0	\$0	\$0	\$0	\$690,701	\$690,701
325520	\$0	\$0	\$0	\$0	\$1,041	\$1,041	\$0	\$1,041
326191	\$0	\$0	\$0	\$0	\$5,994	\$5,994	\$0	\$5,994
327320	\$0	\$0	\$0	\$0	\$12,419	\$12,419	\$20,783	\$33,202
327390	\$0	\$0	\$0	\$0	\$0	\$0	\$1,004,524	\$1,004,524
327410	\$0	\$0	\$0	\$0	\$0	\$0	\$204,530	\$204,530
331491	\$0	\$0	\$0	\$0	\$0	\$0	\$39,261	\$39,261
332312	\$0	\$0	\$0	\$0	\$0	\$0	\$3,327,016	\$3,327,016
332322	\$0	\$0	\$0	\$0	\$0	\$0	\$18,750	\$18,750
332323	\$0	\$0	\$0	\$0	\$0	\$0	\$9,800	\$9,800
332510	\$0	\$0	\$0	\$0	\$0	\$0	\$147,392	\$147,392
332919	\$0	\$0	\$0	\$0	\$0	\$0	\$20,600	\$20,600
332999	\$0	\$9,800	\$0	\$0	\$110,615	\$120,415	\$118,551	\$238,966
333120	\$0	\$0	\$0	\$0	\$0	\$0	\$336,170	\$336,170
333413	\$0	\$0	\$0	\$0	\$62,652	\$62,652	\$0	\$62,652
333921	\$0	\$0	\$0	\$0	\$0	\$0	\$184,487	\$184,487
334220	\$0	\$0	\$0	\$0	\$0	\$0	\$25,750	\$25,750
334310	\$0	\$0	\$0	\$0	\$0	\$0	\$736,812	\$736,812
335129	\$0	\$0	\$0	\$0	\$0	\$0	\$172,546	\$172,546
335314	\$0	\$0	\$0	\$0	\$0	\$0	\$123,759	\$123,759
337215	\$0	\$0	\$0	\$0	\$0	\$0	\$106,000	\$106,000
337920	\$0	\$0	\$0	\$0	\$32,894	\$32,894	\$0	\$32,894

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
339920	\$0	\$0	\$0	\$0	\$0	\$0	\$802,275	\$802,275
339950	\$0	\$0	\$0	\$0	\$365	\$365	\$0	\$365
423320	\$0	\$0	\$0	\$0	\$0	\$0	\$3,867,503	\$3,867,503
423390	\$0	\$0	\$0	\$0	\$12,703	\$12,703	\$0	\$12,703
423610	\$0	\$57,695	\$0	\$0	\$0	\$57,695	\$0	\$57,695
423720	\$0	\$0	\$0	\$0	\$0	\$0	\$1,090,956	\$1,090,956
423820	\$0	\$0	\$0	\$0	\$0	\$0	\$153,590	\$153,590
423840	\$0	\$0	\$0	\$0	\$0	\$0	\$724,155	\$724,155
423910	\$0	\$0	\$0	\$0	\$251,096	\$251,096	\$0	\$251,096
424410	\$0	\$0	\$0	\$0	\$0	\$0	\$75,358	\$75,358
424590	\$0	\$0	\$0	\$0	\$0	\$0	\$138,439	\$138,439
424910	\$0	\$0	\$0	\$0	\$0	\$0	\$285,627	\$285,627
424930	\$0	\$0	\$0	\$0	\$0	\$0	\$53,869	\$53,869
444190	\$0	\$0	\$0	\$0	\$0	\$0	\$482,928	\$482,928
453998	\$0	\$0	\$0	\$0	\$0	\$0	\$261,998	\$261,998
484110	\$0	\$7,800	\$0	\$0	\$12,724	\$20,524	\$0	\$20,524
484220	\$0	\$1,086,463	\$0	\$0	\$284,093	\$1,370,557	\$20,429	\$1,390,986
485310	\$0	\$0	\$0	\$0	\$0	\$0	\$2,354,905	\$2,354,905
488410	\$0	\$0	\$0	\$0	\$0	\$0	\$110,222	\$110,222
488490	\$486,636	\$0	\$0	\$0	\$0	\$486,636	\$464,707	\$951,343
511210	\$0	\$0	\$0	\$0	\$0	\$0	\$89,254	\$89,254
512110	\$0	\$0	\$0	\$0	\$89,750	\$89,750	\$0	\$89,750
517312	\$0	\$0	\$0	\$0	\$0	\$0	\$7,981	\$7,981

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
519110	\$0	\$0	\$0	\$0	\$611	\$611	\$0	\$611
531320	\$0	\$0	\$0	\$0	\$0	\$0	\$420,000	\$420,000
533110	\$0	\$0	\$559,971	\$0	\$0	\$559,971	\$0	\$559,971
541110	\$120,231	\$0	\$0	\$0	\$0	\$120,231	\$63,958	\$184,189
541211	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000
541219	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000
541310	\$0	\$0	\$0	\$0	\$145,674	\$145,674	\$2,266,121	\$2,411,794
541320	\$0	\$187,068	\$6,000	\$0	\$0	\$193,068	\$5,123,534	\$5,316,602
541330	\$8,445	\$2,813,659	\$2,670,000	\$0	\$621,870	\$6,113,975	\$21,360,595	\$27,474,570
541350	\$0	\$0	\$112,690	\$0	\$0	\$112,690	\$64,280	\$176,970
541370	\$41,675	\$254,854	\$97,654	\$293,454	\$148,766	\$836,403	\$397,455	\$1,233,858
541380	\$55,487	\$22,745	\$98,656	\$0	\$4,368	\$181,255	\$817,236	\$998,491
541420	\$0	\$126,685	\$0	\$0	\$223,044	\$349,728	\$7,841	\$357,569
541430	\$0	\$0	\$0	\$0	\$0	\$0	\$127,280	\$127,280
541511	\$0	\$191,552	\$0	\$0	\$0	\$191,552	\$161,826	\$353,378
541512	\$0	\$0	\$0	\$0	\$0	\$0	\$1,475,114	\$1,475,114
541611	\$0	\$90,758	\$0	\$0	\$0	\$90,758	\$528	\$91,286
541612	\$0	\$0	\$0	\$0	\$0	\$0	\$121,690	\$121,690
541620	\$0	\$125,826	\$0	\$0	\$12,500	\$138,326	\$58,302	\$196,629
541690	\$0	\$0	\$0	\$0	\$0	\$0	\$51,450	\$51,450
541820	\$0	\$0	\$0	\$0	\$0	\$0	\$67,200	\$67,200
541840	\$0	\$0	\$0	\$0	\$0	\$0	\$118,478	\$118,478
541910	\$0	\$0	\$0	\$0	\$0	\$0	\$770	\$770

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
541990	\$0	\$0	\$0	\$0	\$4,396	\$4,396	\$0	\$4,396
561320	\$0	\$0	\$0	\$0	\$2,455,333	\$2,455,333	\$23,172	\$2,478,505
561611	\$0	\$0	\$0	\$0	\$0	\$0	\$169,260	\$169,260
561612	\$66,315	\$0	\$0	\$0	\$87,954	\$154,269	\$157,797	\$312,067
561710	\$0	\$0	\$0	\$0	\$0	\$0	\$22,627	\$22,627
561720	\$0	\$0	\$2,172,659	\$0	\$0	\$2,172,659	\$0	\$2,172,659
561730	\$323,770	\$2,084,134	\$0	\$0	\$1,458,506	\$3,866,410	\$7,432,012	\$11,298,421
561790	\$0	\$0	\$0	\$0	\$22,840	\$22,840	\$0	\$22,840
561990	\$0	\$0	\$0	\$0	\$7,884	\$7,884	\$556,277	\$564,162
562119	\$0	\$1,664,509	\$0	\$0	\$0	\$1,664,509	\$0	\$1,664,509
562910	\$0	\$0	\$0	\$0	\$0	\$0	\$769,907	\$769,907
562991	\$0	\$0	\$0	\$0	\$110,041	\$110,041	\$0	\$110,041
562998	\$0	\$84,564	\$0	\$0	\$0	\$84,564	\$75,695	\$160,259
712190	\$0	\$0	\$0	\$0	\$0	\$0	\$9,250	\$9,250
811121	\$0	\$592,115	\$0	\$0	\$579,118	\$1,171,233	\$0	\$1,171,233
811219	\$0	\$0	\$0	\$0	\$0	\$0	\$415,769	\$415,769
811310	\$0	\$0	\$0	\$0	\$0	\$0	\$623,647	\$623,647
812332	\$0	\$0	\$0	\$0	\$519,106	\$519,106	\$0	\$519,106
812930	\$0	\$0	\$0	\$0	\$0	\$0	\$1,020,381	\$1,020,381
922160	\$0	\$0	\$0	\$0	\$0	\$0	\$180,845	\$180,845
926110	\$0	\$0	\$0	\$0	\$0	\$0	\$8,360	\$8,360
Total	\$1,102,560	\$17,919,804	\$7,930,214	\$293,454	\$49,045,503	\$76,291,535	\$268,357,133	\$344,648,669

Source: CHA analysis of the City's Data.

Table 3-5: Distribution of the City's Contract Dollars by Race and Gender
(share of dollars)

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
111421	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
115115	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
212312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
221310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236115	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236210	0.0%	0.0%	0.0%	0.0%	6.1%	6.1%	93.9%	100.0%
236220	0.0%	84.6%	0.0%	0.0%	9.7%	94.3%	5.7%	100.0%
237110	0.0%	0.0%	0.0%	0.0%	65.3%	65.3%	34.7%	100.0%
237120	0.0%	0.0%	0.0%	0.0%	2.5%	2.5%	97.5%	100.0%
237130	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
237210	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
237310	0.0%	1.3%	1.1%	0.0%	4.6%	6.9%	93.1%	100.0%
237990	0.0%	0.0%	0.0%	0.0%	34.8%	34.8%	65.2%	100.0%
238110	0.0%	0.0%	0.0%	0.0%	87.3%	87.3%	12.7%	100.0%
238120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238140	0.0%	10.2%	0.0%	0.0%	4.7%	15.0%	85.0%	100.0%
238150	0.0%	0.0%	0.0%	0.0%	97.0%	97.0%	3.0%	100.0%
238160	0.0%	5.9%	0.0%	0.0%	0.0%	5.9%	94.1%	100.0%
238190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238210	0.0%	0.0%	2.8%	0.0%	0.1%	3.0%	97.0%	100.0%
238220	0.0%	0.1%	0.7%	0.0%	13.0%	13.8%	86.2%	100.0%
238310	0.0%	0.0%	0.0%	0.0%	30.9%	30.9%	69.1%	100.0%
238320	0.0%	16.2%	0.0%	0.0%	0.0%	16.2%	83.8%	100.0%
238330	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%	81.7%	81.7%	18.3%	100.0%
238350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238390	0.0%	0.0%	0.0%	0.0%	81.0%	81.0%	19.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
238910	0.0%	8.1%	1.2%	0.0%	21.3%	30.6%	69.4%	100.0%
238990	0.0%	32.8%	0.0%	0.0%	16.4%	49.3%	50.7%	100.0%
321113	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
321999	0.0%	0.0%	0.0%	0.0%	58.5%	58.5%	41.5%	100.0%
323111	0.0%	73.8%	0.0%	0.0%	0.0%	73.8%	26.2%	100.0%
324121	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325180	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325311	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
325520	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
326191	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
327320	0.0%	0.0%	0.0%	0.0%	37.4%	37.4%	62.6%	100.0%
327390	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
331491	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332322	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332323	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332510	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332919	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332999	0.0%	4.1%	0.0%	0.0%	46.3%	50.4%	49.6%	100.0%
333120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
333413	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
333921	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
335129	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
335314	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
337215	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
337920	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
339920	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
339950	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
423320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423390	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
423610	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
423720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423840	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423910	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
424410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424590	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
444190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
453998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
484110	0.0%	38.0%	0.0%	0.0%	62.0%	100.0%	0.0%	100.0%
484220	0.0%	78.1%	0.0%	0.0%	20.4%	98.5%	1.5%	100.0%
485310	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
488410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
488490	51.2%	0.0%	0.0%	0.0%	0.0%	51.2%	48.8%	100.0%
511210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
512110	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
517312	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
519110	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
531320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
533110	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
541110	65.3%	0.0%	0.0%	0.0%	0.0%	65.3%	34.7%	100.0%
541211	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%	100.0%	100.0%
541310	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	94.0%	100.0%
541320	0.0%	3.5%	0.1%	0.0%	0.0%	3.6%	96.4%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
541330	0.0%	10.2%	9.7%	0.0%	2.3%	22.3%	77.7%	100.0%
541350	0.0%	0.0%	63.7%	0.0%	0.0%	63.7%	36.3%	100.0%
541370	3.4%	20.7%	7.9%	23.8%	12.1%	67.8%	32.2%	100.0%
541380	5.6%	2.3%	9.9%	0.0%	0.4%	18.2%	81.8%	100.0%
541420	0.0%	35.4%	0.0%	0.0%	62.4%	97.8%	2.2%	100.0%
541430	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541511	0.0%	54.2%	0.0%	0.0%	0.0%	54.2%	45.8%	100.0%
541512	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541611	0.0%	99.4%	0.0%	0.0%	0.0%	99.4%	0.6%	100.0%
541612	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541620	0.0%	64.0%	0.0%	0.0%	6.4%	70.3%	29.7%	100.0%
541690	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541840	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541910	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541990	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561320	0.0%	0.0%	0.0%	0.0%	99.1%	99.1%	0.9%	100.0%
561611	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561612	21.3%	0.0%	0.0%	0.0%	28.2%	49.4%	50.6%	100.0%
561710	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561720	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
561730	2.9%	18.4%	0.0%	0.0%	12.9%	34.2%	65.8%	100.0%
561790	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561990	0.0%	0.0%	0.0%	0.0%	1.4%	1.4%	98.6%	100.0%
562119	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
562910	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%	100.0%	100.0%	0.0%	100.0%
562998	0.0%	52.8%	0.0%	0.0%	0.0%	52.8%	47.2%	100.0%
712190	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
811121	0.0%	50.6%	0.0%	0.0%	49.4%	100.0%	0.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
811219	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%	100.0%	100.0%
812332	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
812930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
922160	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
926110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.3%	5.2%	2.3%	0.1%	14.2%	22.1%	77.9%	100.0%

Source: CHA analysis of the City's Data.

3. The Availability of M/WBEs in the City of Arlington's Constrained Product Market

Estimates of the availability of M/WBEs in the City's market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the agency's contracting activities. These availability estimates are compared to the utilization percentage of dollars received by M/WBEs to examine whether minority- and woman-owned firms are at parity. Availability estimates are also crucial for the City to set narrowly tailored annual and contract specific goals.

We generally applied the "custom census" approach with refinements to estimating availability. The courts and the National Disparity Study Guidelines¹²⁵ have recognized this methodology as superior to the 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 Bureaus' County Business Patterns data).
- Second, by examining a comprehensive group of firms, it "casts a broader net" beyond those known to the agency. As recognized by the courts, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. Our methodology is less likely to be tainted by the effects of

125. National Disparity Study Guidelines, pp.57-58.

past and present discrimination than other methods, such as bidders' lists, because it seeks out firms in the City's market areas that have not been able to access the agency's 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. Most 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 because of the very discrimination sought to be remedied by race-conscious 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.¹²⁶
- Fourth, it has been upheld by every court that has reviewed it, including most recently in the successful defense of the Illinois State Toll Highway's DBE program, for which we served as testifying experts.¹²⁷

Using this framework, CHA utilized three databases to estimate availability:

- The Final Contract Data File;
- The Master M/WBE Directory compiled by CHA; and
- The Dun & Bradstreet/Hoovers Database downloaded from the company's website.

The Master Directory combined the results of an exhaustive search for directories and other lists containing information about minority- and woman-owned businesses. The resulting list of minority- and woman-owned businesses is comprehensive. After compiling the Master M/WBE Directory, we limited the firms we used in our analysis to those operating within the City's product and geographic market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company. 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

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

127. *Midwest Fence, Corp. v. U.S. Department of Transportation et al.*, 840 F.3d 932 (2016); see also *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007), *cert. denied*, 137 S.Ct. 2292 (2017).

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 identifies a firm as being minority-owned.¹²⁸ 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.

We merged these three databases to form the Master Business Availability List, an accurate estimate of the availability of firms in the agency's market area. Tables 3-6 through 3-8 present data on:

- The unweighted availability by race and gender, and by NAICS codes for contracts in the City's constrained product markets;
- The weights used to adjust the unweighted numbers¹²⁹; and
- The final estimates of the weighted averages of the individual 6-digit level availability estimates in the City's market area.

The weighted availability estimates can be used by the City to set its M/WBE goal.

Table 3-6: Unweighted Availability for the City's Contracts

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
111421	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
115115	66.7%	0.0%	0.0%	0.0%	33.3%	100.0%	0.0%	100.0%
212312	0.0%	0.0%	0.0%	0.0%	5.3%	5.3%	94.7%	100.0%
221310	2.7%	2.7%	0.9%	0.0%	3.2%	9.6%	90.4%	100.0%
236115	1.0%	0.6%	0.1%	0.1%	1.7%	3.5%	96.5%	100.0%
236210	16.8%	18.7%	5.6%	0.9%	10.3%	52.3%	47.7%	100.0%
236220	13.3%	7.9%	3.0%	1.6%	8.1%	33.9%	66.1%	100.0%
237110	2.8%	11.6%	1.2%	0.6%	8.6%	24.8%	75.2%	100.0%
237120	1.9%	2.8%	0.9%	1.9%	0.9%	8.3%	91.7%	100.0%
237130	6.7%	10.1%	1.1%	0.0%	16.9%	34.8%	65.2%	100.0%
237210	0.7%	0.2%	0.2%	0.1%	1.0%	2.1%	97.9%	100.0%

128. The variable is labeled: "Is Minority Owned" and values for the variable can be either "yes" or "no".

129. These weights are equivalent to the share of contract dollars presented in the previous section.

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
237310	16.7%	14.2%	3.5%	0.5%	9.5%	44.4%	55.6%	100.0%
237990	15.0%	16.0%	3.2%	0.0%	11.2%	45.5%	54.5%	100.0%
238110	5.7%	7.7%	2.3%	0.6%	4.5%	20.9%	79.1%	100.0%
238120	17.2%	20.5%	0.8%	4.1%	13.9%	56.6%	43.4%	100.0%
238130	1.1%	1.9%	0.2%	0.2%	2.3%	5.6%	94.4%	100.0%
238140	4.9%	5.3%	0.0%	0.0%	4.4%	14.6%	85.4%	100.0%
238150	0.0%	0.0%	1.9%	0.0%	9.7%	11.7%	88.3%	100.0%
238160	1.0%	1.8%	0.4%	0.4%	2.6%	6.2%	93.8%	100.0%
238190	12.2%	11.0%	2.4%	3.7%	11.0%	40.2%	59.8%	100.0%
238210	3.4%	3.5%	0.8%	0.3%	5.6%	13.6%	86.4%	100.0%
238220	1.7%	1.4%	0.3%	0.1%	3.2%	6.6%	93.4%	100.0%
238310	2.9%	3.6%	0.2%	0.2%	3.4%	10.3%	89.7%	100.0%
238320	1.8%	2.4%	0.5%	0.1%	2.7%	7.5%	92.5%	100.0%
238330	3.5%	3.1%	0.4%	0.0%	7.5%	14.6%	85.4%	100.0%
238340	0.6%	0.9%	0.3%	0.0%	5.1%	6.9%	93.1%	100.0%
238350	3.0%	3.0%	0.4%	0.0%	3.4%	9.9%	90.1%	100.0%
238390	3.0%	3.4%	0.0%	0.0%	3.4%	9.7%	90.3%	100.0%
238910	10.1%	14.3%	2.4%	1.8%	13.6%	42.2%	57.8%	100.0%
238990	3.2%	2.1%	0.5%	0.2%	4.5%	10.5%	89.5%	100.0%
321113	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
321999	0.0%	0.0%	0.0%	0.0%	6.3%	6.3%	93.7%	100.0%
323111	1.5%	1.3%	0.9%	0.3%	9.3%	13.3%	86.7%	100.0%
324121	0.0%	21.1%	0.0%	0.0%	5.3%	26.3%	73.7%	100.0%
325180	0.0%	0.0%	0.0%	1.3%	1.3%	2.6%	97.4%	100.0%
325311	33.3%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	100.0%
325520	0.0%	0.0%	0.0%	0.0%	12.1%	12.1%	87.9%	100.0%
326191	0.0%	0.0%	0.0%	0.0%	23.1%	23.1%	76.9%	100.0%
327320	0.0%	1.9%	0.0%	0.0%	8.7%	10.7%	89.3%	100.0%
327390	1.4%	0.0%	0.0%	0.0%	2.7%	4.1%	95.9%	100.0%
327410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
331491	0.0%	5.0%	0.0%	0.0%	0.0%	5.0%	95.0%	100.0%
332312	1.5%	3.8%	1.5%	0.8%	13.5%	21.1%	78.9%	100.0%
332322	1.4%	2.9%	2.1%	0.0%	10.7%	17.1%	82.9%	100.0%
332323	12.5%	0.0%	0.0%	0.0%	8.8%	21.3%	78.8%	100.0%
332510	0.0%	2.4%	0.0%	0.0%	9.8%	12.2%	87.8%	100.0%
332919	0.0%	0.0%	0.0%	8.3%	0.0%	8.3%	91.7%	100.0%
332999	2.6%	3.9%	2.6%	0.0%	6.6%	15.8%	84.2%	100.0%
333120	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%	94.4%	100.0%
333413	0.0%	7.7%	0.0%	0.0%	3.8%	11.5%	88.5%	100.0%
333921	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
334220	0.0%	1.1%	2.2%	1.1%	4.4%	8.9%	91.1%	100.0%
334310	2.6%	0.0%	0.0%	0.0%	7.7%	10.3%	89.7%	100.0%
335129	1.8%	1.8%	0.0%	0.0%	1.8%	5.3%	94.7%	100.0%
335314	0.0%	0.0%	0.0%	0.0%	3.3%	3.3%	96.7%	100.0%
337215	0.0%	4.2%	4.2%	0.0%	0.0%	8.3%	91.7%	100.0%
337920	2.7%	0.0%	0.0%	0.0%	8.1%	10.8%	89.2%	100.0%
339920	0.8%	0.0%	0.0%	0.0%	5.5%	6.3%	93.7%	100.0%
339950	1.1%	1.7%	0.9%	0.2%	8.1%	12.1%	87.9%	100.0%
423320	2.7%	2.4%	1.8%	0.0%	7.2%	14.1%	85.9%	100.0%
423390	8.7%	6.5%	0.0%	0.0%	14.1%	29.3%	70.7%	100.0%
423610	1.4%	3.9%	1.2%	0.0%	8.4%	14.8%	85.2%	100.0%
423720	0.5%	0.5%	0.0%	0.0%	11.2%	12.2%	87.8%	100.0%
423820	0.0%	0.0%	0.0%	0.0%	3.8%	3.8%	96.2%	100.0%
423840	2.6%	1.4%	1.2%	1.2%	8.3%	14.8%	85.2%	100.0%
423910	0.0%	0.0%	0.5%	0.0%	2.2%	2.7%	97.3%	100.0%
424410	1.0%	0.0%	0.0%	0.0%	4.3%	5.3%	94.7%	100.0%
424590	0.0%	0.0%	0.0%	0.0%	1.2%	1.2%	98.8%	100.0%
424910	1.0%	0.0%	0.0%	0.0%	4.2%	5.2%	94.8%	100.0%
424930	1.0%	1.0%	0.0%	0.0%	12.9%	14.9%	85.1%	100.0%
444190	2.2%	1.3%	0.6%	0.0%	6.2%	10.3%	89.7%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
453998	0.4%	0.1%	0.1%	0.1%	3.7%	4.3%	95.7%	100.0%
484110	2.3%	1.4%	0.2%	0.0%	2.1%	6.0%	94.0%	100.0%
484220	22.1%	47.8%	1.4%	0.2%	6.7%	78.2%	21.8%	100.0%
485310	0.0%	0.0%	0.0%	0.0%	3.1%	3.1%	96.9%	100.0%
488410	0.3%	0.0%	0.0%	0.0%	3.9%	4.2%	95.8%	100.0%
488490	10.8%	0.0%	0.0%	0.0%	1.4%	12.2%	87.8%	100.0%
511210	0.2%	0.2%	1.7%	0.0%	3.9%	6.0%	94.0%	100.0%
512110	1.6%	0.7%	0.9%	0.0%	5.5%	8.7%	91.3%	100.0%
517312	0.2%	0.0%	1.6%	0.0%	1.6%	3.3%	96.7%	100.0%
519110	0.0%	0.0%	0.0%	0.0%	18.8%	18.8%	81.3%	100.0%
531320	0.0%	0.0%	0.0%	0.0%	7.3%	7.3%	92.7%	100.0%
533110	2.1%	0.0%	0.7%	0.0%	5.6%	8.5%	91.5%	100.0%
541110	0.7%	0.2%	0.2%	0.0%	4.4%	5.6%	94.4%	100.0%
541211	2.0%	0.6%	0.1%	0.0%	5.4%	8.2%	91.8%	100.0%
541219	4.2%	0.4%	0.5%	0.0%	9.3%	14.3%	85.7%	100.0%
541310	3.3%	4.3%	2.4%	0.8%	7.7%	18.4%	81.6%	100.0%
541320	1.2%	1.2%	0.6%	0.1%	4.8%	7.9%	92.1%	100.0%
541330	5.2%	5.8%	5.9%	0.6%	7.3%	24.8%	75.2%	100.0%
541350	8.4%	0.6%	9.0%	0.0%	7.8%	25.7%	74.3%	100.0%
541370	3.6%	8.5%	2.8%	2.0%	9.3%	26.3%	73.7%	100.0%
541380	4.0%	3.2%	3.6%	0.0%	8.5%	19.2%	80.8%	100.0%
541420	1.8%	3.5%	1.8%	0.0%	22.8%	29.8%	70.2%	100.0%
541430	2.0%	0.9%	0.8%	0.1%	15.0%	18.9%	81.1%	100.0%
541511	1.4%	1.1%	4.2%	0.1%	4.1%	10.9%	89.1%	100.0%
541512	4.2%	1.5%	4.5%	0.2%	5.4%	15.9%	84.1%	100.0%
541611	4.4%	1.0%	0.8%	0.1%	5.5%	11.8%	88.2%	100.0%
541612	10.4%	2.2%	0.3%	0.6%	14.9%	28.5%	71.5%	100.0%
541620	6.8%	4.2%	2.9%	0.5%	13.6%	27.9%	72.1%	100.0%
541690	4.6%	3.3%	2.4%	0.0%	9.0%	19.2%	80.8%	100.0%
541820	6.5%	1.0%	0.0%	0.0%	13.3%	20.9%	79.1%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
541840	1.4%	0.0%	1.4%	0.0%	13.0%	15.9%	84.1%	100.0%
541910	3.6%	1.1%	0.7%	0.0%	10.2%	15.7%	84.3%	100.0%
541990	0.7%	0.4%	0.1%	0.0%	4.1%	5.4%	94.6%	100.0%
561320	5.5%	2.2%	1.1%	0.0%	9.9%	18.7%	81.3%	100.0%
561611	2.9%	3.4%	0.0%	0.0%	8.0%	14.3%	85.7%	100.0%
561612	8.2%	3.0%	0.7%	0.0%	4.2%	16.2%	83.8%	100.0%
561710	2.5%	0.2%	0.2%	0.0%	4.1%	7.0%	93.0%	100.0%
561720	5.8%	2.2%	1.0%	0.3%	6.7%	15.9%	84.1%	100.0%
561730	3.6%	1.9%	0.3%	0.1%	3.9%	9.8%	90.2%	100.0%
561790	2.1%	0.7%	0.1%	0.0%	3.4%	6.2%	93.8%	100.0%
561990	1.1%	0.3%	0.2%	0.1%	1.9%	3.6%	96.4%	100.0%
562119	20.0%	28.6%	0.0%	0.0%	8.6%	57.1%	42.9%	100.0%
562910	25.0%	7.8%	0.9%	2.6%	20.7%	56.9%	43.1%	100.0%
562991	0.0%	0.0%	0.0%	0.0%	8.2%	8.2%	91.8%	100.0%
562998	4.5%	9.1%	9.1%	9.1%	4.5%	36.4%	63.6%	100.0%
712190	0.5%	1.0%	0.0%	0.0%	4.5%	6.0%	94.0%	100.0%
811121	0.2%	1.8%	0.5%	0.0%	3.6%	6.1%	93.9%	100.0%
811219	0.8%	1.1%	0.8%	0.0%	4.5%	7.3%	92.7%	100.0%
811310	1.5%	1.5%	0.6%	0.0%	3.4%	7.0%	93.0%	100.0%
812332	15.0%	5.0%	0.0%	0.0%	5.0%	25.0%	75.0%	100.0%
812930	1.4%	0.0%	0.0%	0.0%	3.5%	4.9%	95.1%	100.0%
922160	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
926110	0.0%	0.0%	0.0%	0.0%	3.8%	3.8%	96.2%	100.0%
Total	2.5%	1.8%	0.8%	0.2%	4.4%	9.6%	90.4%	100.0%

Source: CHA analysis of the City's Data; Hoovers; CHA Master Directory.

Table 3-7: Share of the City's Spending by NAICS Code

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
111421	Nursery and Tree Production	0.01%
115115	Farm Labor Contractors and Crew Leaders	0.003%
212312	Crushed and Broken Limestone Mining and Quarrying	0.02%
221310	Water Supply and Irrigation Systems	0.1%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.01%
236210	Industrial Building Construction	0.1%
236220	Commercial and Institutional Building Construction	1.7%
237110	Water and Sewer Line and Related Structures Construction	9.3%
237120	Oil and Gas Pipeline and Related Structures Construction	0.1%
237130	Power and Communication Line and Related Structures Construction	0.002%
237210	Land Subdivision	0.04%
237310	Highway, Street, and Bridge Construction	39.1%
237990	Other Heavy and Civil Engineering Construction	5.7%
238110	Poured Concrete Foundation and Structure Contractors	0.3%
238120	Structural Steel and Precast Concrete Contractors	0.05%
238130	Framing Contractors	0.001%
238140	Masonry Contractors	0.5%
238150	Glass and Glazing Contractors	0.3%
238160	Roofing Contractors	0.7%
238190	Other Foundation, Structure, and Building Exterior Contractors	1.1%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.0%
238310	Drywall and Insulation Contractors	0.03%
238320	Painting and Wall Covering Contractors	0.2%
238330	Flooring Contractors	0.1%
238340	Tile and Terrazzo Contractors	0.2%
238350	Finish Carpentry Contractors	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
238390	Other Building Finishing Contractors	0.03%
238910	Site Preparation Contractors	0.5%
238990	All Other Specialty Trade Contractors	0.5%
321113	Sawmills	0.001%
321999	All Other Miscellaneous Wood Product Manufacturing	0.01%
323111	Commercial Printing (except Screen and Books)	0.3%
324121	Asphalt Paving Mixture and Block Manufacturing	0.01%
325180	Other Basic Inorganic Chemical Manufacturing	1.1%
325311	Nitrogenous Fertilizer Manufacturing	0.2%
325520	Adhesive Manufacturing	0.0003%
326191	Plastics Plumbing Fixture Manufacturing	0.002%
327320	Ready-Mix Concrete Manufacturing	0.01%
327390	Other Concrete Product Manufacturing	0.3%
327410	Lime Manufacturing	0.1%
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	0.01%
332312	Fabricated Structural Metal Manufacturing	1.0%
332322	Sheet Metal Work Manufacturing	0.01%
332323	Ornamental and Architectural Metal Work Manufacturing	0.003%
332510	Hardware Manufacturing	0.04%
332919	Other Metal Valve and Pipe Fitting Manufacturing	0.01%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.1%
333120	Construction Machinery Manufacturing	0.1%
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	0.02%
333921	Elevator and Moving Stairway Manufacturing	0.1%
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	0.01%
334310	Audio and Video Equipment Manufacturing	0.2%
335129	Other Lighting Equipment Manufacturing	0.1%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
335314	Relay and Industrial Control Manufacturing	0.04%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	0.03%
337920	Blind and Shade Manufacturing	0.01%
339920	Sporting and Athletic Goods Manufacturing	0.2%
339950	Sign Manufacturing	0.0001%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	1.1%
423390	Other Construction Material Merchant Wholesalers	0.00%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.02%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.3%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.04%
423840	Industrial Supplies Merchant Wholesalers	0.2%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.1%
424410	General Line Grocery Merchant Wholesalers	0.02%
424590	Other Farm Product Raw Material Merchant Wholesalers	0.04%
424910	Farm Supplies Merchant Wholesalers	0.1%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.02%
444190	Other Building Material Dealers	0.1%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.1%
484110	General Freight Trucking, Local	0.01%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.4%
485310	Taxi Service	0.7%
488410	Motor Vehicle Towing	0.03%
488490	Other Support Activities for Road Transportation	0.3%
511210	Software Publishers	0.03%
512110	Motion Picture and Video Production	0.03%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
517312	Wireless Telecommunications Carriers (except Satellite)	0.002%
519110	News Syndicates	0.0002%
531320	Offices of Real Estate Appraisers	0.1%
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0.2%
541110	Offices of Lawyers	0.1%
541211	Offices of Certified Public Accountants	0.01%
541219	Other Accounting Services	0.01%
541310	Architectural Services	0.7%
541320	Landscape Architectural Services	1.5%
541330	Engineering Services	8.0%
541350	Building Inspection Services	0.1%
541370	Surveying and Mapping (except Geophysical) Services	0.4%
541380	Testing Laboratories	0.3%
541420	Industrial Design Services	0.1%
541430	Graphic Design Services	0.04%
541511	Custom Computer Programming Services	0.1%
541512	Computer Systems Design Services	0.4%
541611	Administrative Management and General Management Consulting Services	0.03%
541612	Human Resources Consulting Services	0.04%
541620	Environmental Consulting Services	0.1%
541690	Other Scientific and Technical Consulting Services	0.01%
541820	Public Relations Agencies	0.02%
541840	Media Representatives	0.03%
541910	Marketing Research and Public Opinion Polling	0.0002%
541990	All Other Professional, Scientific, and Technical Services	0.001%
561320	Temporary Help Services	0.7%
561611	Investigation Services	0.05%
561612	Security Guards and Patrol Services	0.1%
561710	Exterminating and Pest Control Services	0.01%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
561720	Janitorial Services	0.6%
561730	Landscaping Services	3.3%
561790	Other Services to Buildings and Dwellings	0.01%
561990	All Other Support Services	0.2%
562119	Other Waste Collection	0.5%
562910	Remediation Services	0.2%
562991	Septic Tank and Related Services	0.03%
562998	All Other Miscellaneous Waste Management Services	0.05%
712190	Nature Parks and Other Similar Institutions	0.003%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	0.3%
811219	Other Electronic and Precision Equipment Repair and Maintenance	0.1%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.2%
812332	Industrial Launderers	0.2%
812930	Parking Lots and Garages	0.3%
922160	Fire Protection	0.1%
926110	Administration of General Economic Programs	0.002%
Total		100.0%

Source: CHA analysis of the City's Data.

We next determined the aggregated availability of M/WBEs, weighted by the City's spending in its geographic and industry markets, to be 29.8 percent for the City's contracts. Table 3-8 presents the total weighted availability data for each of the racial and gender categories.

Table 3-8: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
9.6%	9.4%	2.5%	0.4%	7.9%	29.8%	70.2%	100.0%

Source: CHA analysis of the City's Data; Hoovers; CHA Master Directory.

4. Disparity Analysis for the City's Contracts

To meet the strict scrutiny test for non-federal contracts that requires that all groups must have suffered discrimination in the City's markets to be eligible for credit towards meeting M/WBE contract goals, we next calculated disparity ratios comparing the City's utilization of M/WBEs as prime contractors and subcontractors to the availability of these firms in its market areas. 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

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. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.¹³⁰ A 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. A more in-depth discussion of statistical significance is provided in Appendix C.

Table 3-9 presents these results for the City's contracts. The disparity ratios were substantively significant for Blacks, Hispanics, Native Americans, and M/WBEs. Three of the disparity ratios were found to be statistically significant at different levels. Four of the disparity ratios were found to be substantively significant.

Table 3-9: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE
Disparity Ratio	3.1%^	55.3%^	92.4%	22.7%^	180.7%*	74.1% ^{***}	111.0% ^{***}

Source: CHA analysis of the City's Data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level.

** Indicates statistical significance at the 0.01 level.

* Indicates statistical significance at the 0.05 level.

^ Indicates substantive significance.

130. See U.S. Equal Opportunity Employment 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.").

It is CHA's standard practice to explore any M/WBE disparity ratio that exceeds 90 percent. This is to ensure that an abnormal pattern of M/WBE concentration does not account for disparity ratios greater than 90 percent, thereby leading to the unwarranted conclusion that race-conscious remedies are not supportable to redress discrimination. This exploration entails examining any NAICS code where:

- The NAICS code's share of overall spending is relatively high.
- The particular M/WBE utilization in that code is relatively high.

Once the targeted codes are identified, we calculated values for the following variables:

Table 3-10: Sources of Calculations Used to Explore Disparity Ratios

Variables	Source
NAICS code share of all City spending	This is found in Table 3-3
A group's share of spending in a code (utilization)	This is found in Table 3-5
NAICS code share of all spending for a group	This is found using data in in Table 3-4
Number of firms	This is found in the Contract Data Utilization File
Share of group spending in NAICS code by the largest firm	This is found in the Contract Data Utilization File
Share of group spending in NAICS code by the second largest firm	This is found in the Contract Data Utilization File
Share of group spending in NAICS code by the third largest firm	This is found in the Contract Data Utilization File
Share of group spending in NAICS code by the three largest firms	This is found in the Contract Data Utilization File
Share of group spending in NAICS code by the remaining firms	This is found in the Contract Data Utilization File

Given these criteria, we examined more closely the specific codes for Asian-owned and White woman-owned firms.

Asian- owned firm utilization	
541330	Engineering Services

NAICS Code 541330 - Engineering Services

NAICS code 541330 contained 8.0 percent of all the City's spending. The Asian utilization in that code was 9.7 percent – higher than the overall Asian utilization of 2.3 percent. Table 3-11 compares Asian outcomes in this code to non-M/WBE outcomes.

Table 3-11: Asian Versus Non-M/WBE Outcomes
NAICS Code 541330 (Engineering Services)

	Asian	Non-M/WBE
NAICS code share of all spending	33.7%	8.0%
Number of firms	7	37
Share of group spending in NAICS code by the largest firm	38.0%	12.1%
Share of group spending in NAICS code by the second largest firm	30.4%	8.8%
Share of group spending in NAICS code by the third largest firm	22.8%	8.4%
Share of group spending in NAICS code by the three largest firms	91.2%	29.3%
Share of group spending in NAICS code by the remaining firms	8.8%	70.7%

We find that Asian firms are much more concentrated than non-M/WBE firms in this code: the three largest Asian firms received a much larger share of all Asian dollars in this code compared to the share of total non-M/WBE dollars received by the three largest non-M/WBE firms. In addition, this code contained a far larger share of overall Asian dollars compared to that of non-M/WBEs.

We believe the high disparity ratio for Asians can be attributed to the pattern of concentrated firm activity among Asian firms which is starkly different from non-M/WBE firms.

White women utilization	
237990	Other Heavy and Civil Engineering Construction
238220	Plumbing, Heating, and Air-Conditioning Contractors
561730	Landscaping Services

NAICS Code 237990 - Other Heavy and Civil Engineering Construction

NAICS code 237990 contained 5.7 percent of all the City's spending. The White women utilization in that code was 34.8 percent – higher than the overall White women utilization of 14.2 percent. Table 3-12 compares White women outcomes in this code to non-M/WBE outcomes.

**Table 3-12: White Women Versus Non-M/WBE Outcomes
NAICS Code 237990 (Other Heavy and Civil Engineering
Construction)**

	White Women	Non-M/WBE
NAICS code share of all spending	14.0%	4.8%
Number of firms	3	12
Share of group spending in NAICS code by the largest firm	84.2%	52.1%
Share of group spending in NAICS code by the second largest firm	14.7%	2090.0%
Share of group spending in NAICS code by the third largest firm	1.1%	1640.0%
Share of group spending in NAICS code by the three largest firms	100.0%	89.5%
Share of group spending in NAICS code by the remaining firms	0.0%	10.5%

We found a much higher level of dollar concentration among White woman firms compared to non-M/WBE firms. This code captures a higher share of all White women dollars compared to the code share of all non-M/WBE dollars. In addition, three White woman firms capture all of the dollars going to White women in this code, while the top three non-M/WBE firms capture just 89.5 percent of all non-M/WBE dollars in this code.

NAICS Code 238220 - Plumbing, Heating, and Air-Conditioning Contractors

NAICS code 238220 contained 8.0 percent of all the City's spending. The White woman utilization in that code was 13.0 percent. – a bit lower than the overall White Women utilization of 14.2 percent. Table 3-13 compares White Women outcomes in this code to non-M/WBE outcomes.

**Table 3-13: White Women Versus Non-M/WBE Outcomes
NAICS Code 238220 (Plumbing, Heating, and Air-Conditioning
Contractors)**

	White Women	Non-M/WBE
NAICS code share of all spending	7.3%	8.8%
Number of firms	2	9
Share of group spending in NAICS code by the largest firm	95.7%	43.3%
Share of group spending in NAICS code by the second largest firm	4.3%	22.9%
Share of group spending in NAICS code by the third largest firm	---	16.2%
Share of group spending in NAICS code by the three largest firms	100.0%	82.4%
Share of group spending in NAICS code by the remaining firms	0.0%	17.6%

While the share of overall dollars captured by this code for White women and non-M/WBEs were similar (7.3 percent compared to 8.8 percent), what is different is the level of concentration. Only two White women firms received contracts compared to nine non-M/WBE firms. The largest two non-M/WBE firms received only 66.2 percent of non-M/WBE dollars, less than the 100 percent received by the two White women firms.

NAICS Code 561730 - Landscaping Services

NAICS code 561730 contained 3.3 percent of all the City's spending. The White woman utilization in that code was 12.9 percent, slightly lower than the overall White women utilization of 14.2 percent. Table 3-14 compares White women outcomes in this code to non-M/WBE outcomes.

**Table 3-14: White Women Versus Non-M/WBE Outcomes
NAICS Code 561730 (Landscaping Services)**

	White Women	Non-M/WBE
NAICS code share of all spending	3.0%	2.8%
Number of firms	2	11
Share of group spending in NAICS code by the largest firm	94.4%	23.9%

	White Women	Non-M/WBE
Share of group spending in NAICS code by the second largest firm	5.6%	21.5%
Share of group spending in NAICS code by the third largest firm	---	17.5%
Share of group spending in NAICS code by the three largest firms	100.0%	62.9%
Share of group spending in NAICS code by the remaining firms	0.0%	37.1%

As in NAICS code 238220, what is striking is the degree of dollar concentration in this code. Only two White women firms received any contracts in this code and one of those captured approximately 94 percent of the dollars. In contrast, there were 11 non-M/WBE firms receiving contracts in this code and the largest firm received just 24 percent of all non-M/WBE dollars.

Overall Assessment

Overall, we feel that the high disparity ratio for White women can be attributed to the pattern of concentrated firm activity among woman-owned firms which is starkly different from non-M/WBE firms.

C. Conclusion

This Chapter analyzed the City's utilization of M/WBEs and the availability of these firms as a percentage of all available firms. The weighted availability estimates can be used as the basis for setting annual M/WBE program goals. The unweighted availability estimates can be used as the basis for setting contract goals. We further calculated disparity ratios of M/WBE availability compared to the City's utilization of M/WBEs, to assist the City to determine whether it has a strong basis in evidence to adopt race- and gender-conscious measures on its City funded contracts.

IV. ANALYSIS OF ECONOMY-WIDE DISPARITIES IN THE CITY OF ARLINGTON'S MARKETS

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.¹³¹

This Chapter explores the data and literature relevant to how discrimination in the City of Arlington (“the City”) market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the City’s contract opportunities. First, we analyzed the rates at which M/WBEs in the Dallas-Fort Worth metropolitan area form firms and their earnings from those firms.¹³² Next, we looked at the number of sales and receipts, number of employees and payroll for M/WBE firms in the State of Texas. Then, we summarized the literature on barriers to equal access to commercial credit. Finally, we summarized 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 types of affirmative intervention.

A key element to determine the need for government intervention through contract goals in the sectors of the economy where the City procures goods and services is an analysis of the extent of disparities in those sectors independent of the agency’s intervention through its contracting affirmative action programs.

131. Arrow, Kenneth J., “What Has Economics to say about racial discrimination?” *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

132. The Dallas-Fort Worth metropolitan area encompassed the counties of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, and Tarrant.

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government's markets form businesses compared to similar non-M/WBEs show that 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.¹³³ These analyses contributed most recently to the successful defense of the Illinois Tollway's Disadvantaged Business Enterprise (DBE) Program.¹³⁴ As explained by the Tenth Circuit in upholding the U.S. Department of Transportation's DBE program, 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.¹³⁵

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.

"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 competi-

133. See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

134. *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); *see also Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that the City of Chicago's M/WBE program for local construction contracts met the compelling interest prong using this framework).

135. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1169 (10th Cir. 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534 U.S. 103 (2001) ("*Adarand VII*").

tion is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts.”¹³⁶

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”.

For example, in unanimously upholding the USDOT DBE program, 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.¹³⁷ 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 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.¹³⁸

Likewise, in holding that the DBE program regulations meet strict scrutiny, the court in the *Western States* opinion relied on the “substantial body of statistical and anecdotal materials” considered by Congress, including studies based on Census data that provide “ample” evidence of barriers to the formation of minority-owned firms in the transportation contracting industry.¹³⁹

This type of court-approved analysis is especially important for an agency such as the City, which has been implementing versions of an M/WBE program for many years. The City’s remedial market interventions through the use of contract goals

136. *Id.*

137. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at *64 (Sept. 8, 2005).

138. *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004); *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.”).

139. *Western States Paving Co., Inc. v. Department of Transportation*, 407 F.3d 983, 993 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

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 otherwise would result in disparities in M/WBE utilization that mirror that of the overall economy.

To explore the question of whether firms owned by non-Whites and White women face disparate treatment in the City's marketplace outside of City contracts, we examined the U.S. Bureau of the Census' *American Community Survey* which allows us to examine disparities using individual entrepreneurs as the basic unit of analysis.¹⁴⁰ We used the eight-county Dallas Fort Worth 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 of Arlington's marketplace.

B. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2014 - 2018 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 programs. In this section, we explore this and other aspects of this question using the Census Bureau's *American Community Survey* data. 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 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* ("ACS") *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

140. Data from 2014 - 2018 American Community Survey are the most recent for a five-year period.

the most recent data available for the years 2014 through 2018.¹⁴¹ With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

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 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 obtain two results: 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 more detail on this technique in Appendix A.

With respect to the first step of the regression analysis, we will 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 are determining 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 step of the regression analysis, we will determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist, but we find that it is not statistically different from zero. In this case, we are not confident that there is 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

141. For more information about the ACS PUMS, see <http://www.census.gov/acs/>.

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 we are 95 percent confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates we are 99 percent confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates we are 99.9 percent confident that the relationship is different from zero.¹⁴²

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); 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).

1. All Industries Combined in the Dallas Fort Worth 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' American Community Survey. Table 4-1 presents these results. The table indicates that White men have higher business formation rates compared to non-Whites and White women. Table 4-2 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender.¹⁴³ This table indicates that non-Whites (except for Asian/Pacific Islanders) and White women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 3.3 percent for Blacks to 1.2 percent for Others. These results were statistically significant at the 0.001 level for Blacks, Hispanics, and White women.

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.¹⁴⁴ Tables 4-3 and 4-4 present this

142. Most social scientists do not endorse utilizing a confidence level of less than 95 percent. Appendix C explains more about statistical significance.

143. Appendix B provides a "Further Explanation of Probit Regression Analysis."

144. See Appendix A for more information on multiple regression statistical analysis.

data on wage and salary incomes and business earnings respectively. Table 4-3 indicates that non-Whites and White women earn less than White men. The reduction in earnings ranges from 40.3 percent to 18.2 percent and all of the results are statistically significant at the 0.001 level. Table 4-4 indicates that except for Asian/Pacific Islanders, non-Whites and White women receive business earnings less than White men. The reduction in earnings ranges from 223.0 percent to 17.4 percent.¹⁴⁵

Table 4-1: Business Formation Rates

All Industries, 2014 - 2018¹⁴⁶

Demographic Group	Business Formation Rates
Black	1.7%
Hispanic	1.9%
Native American	4.0%
Asian/Pacific Islander	5.2%
Other	3.9%
White Women	3.3%
Non-White Male	2.5%
White Male	5.7%

Source: CHA calculations from the American Community Survey

Table 4-2: Business Formation Probabilities Relative to White Males

All Industries, 2014 - 2018

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-3.3%***
Hispanic	-2.3%***
Native American	----- ^a
Asian/Pacific Islander	0.1%
Other	-----
White Women	-2.0%***

145. The proper way to interpret a coefficient that is less than negative 100 percent (e.g., the value of the coefficient for Other in Table 4-4), is the percentage amount non-M/WBEs earn that is more than the group in question. In this case, non-M/WBEs earn 223 percent more than Others.

146. Statistical significance tests were not conducted on basic business formation rates.

- a. Many times, there were not sufficient observations in the sampled data to conduct a reliable statistical analysis. In these instances, the tables will contain the symbol “---”. There were only 15 observations for Native Americans and 14 for Others. For the balance of the ACS analysis, we will not provide estimates concerning business outcomes for these two groups. We will report on estimates for wage outcomes for these groups where possible.

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

Table 4-3: Wage Differentials for Selected Groups Relative to White Men
All Industries, 2014 - 2018

Demographic Group	Wages Relative to White Men (% Change)
Black	-35.4%***
Hispanic	-18.2%***
Native American	-35.3%***
Asian/Pacific Islander	-34.3%***
Other	-40.3%***
White Women	-31.9%***

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

Table 4-4: Business Earnings Differentials for Selected Groups Relative to White Men
All Industries

Demographic Group	Earnings Relative to White Men (% Change)
Black	-53.5%**
Hispanic	-23.3%
Native American	----
Asian/Pacific Islander	31.1%
Other	----
White Women	-55.2%***

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

** Indicates statistical significance at the 0.01 level.

2. The Construction Industry in the Dallas Fort Worth Metropolitan Area

Table 4-5 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 4-6 indicates that non-Whites (except for Asian/Pacific Islanders) and White women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 3.9 percent to 2.5 percent. Table 4-7 indicates that non-Whites and White women earn less than White men. The statistically significant reductions in earnings range from 8.4 percent to 58.5 percent. Table 4-8 indicates that none of the business coefficient were statistically significant.

**Table 4-5: Business Formation Rates
Construction, 2014 - 2018**

Demographic Group	Business Formation Rates
Black	6.6%
Hispanic	2.9%
Native American	-----
Asian/Pacific Islander	9.1%
Other	-----
White Women	7.9%
Non-White Male	3.7%
White Male	11.1%

Source: CHA calculations from the American Community Survey

**Table 4-6: Business Formation Probability Differentials for Selected Groups
Relative to White Men, Construction, 2014 - 2018**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-2.5%
Hispanic	-3.3%***
Native American	-----
Asian/Pacific Islander	0.5%
Other	-----
White Women	-3.9%***

Source: CHA calculations from the American Community Survey.
 *** Indicates statistical significance at the 0.001 level.

**Table 4-7: Wage Differentials for Selected Groups Relative to White Men
 Construction, 2014 - 2018**

Demographic Group	Wages Relative to White Men (% Change)
Black	-32.3%***
Hispanic	-8.4%***
Native American	-58.5%**
Asian/Pacific Islander	-48.4%***
Other	-15.4%
White Women	-21.3%***

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 4-8: Business Earnings Differentials for Selected Groups Relative to White Men
 Construction, 2014 - 2018**

Demographic Group	Earnings Relative to White Men (% Change)
Black	23.0%
Hispanic	-30.2%
Native American	-----
Asian/Pacific Islander	-71.6%
Other	-----
White Women	38.2%

Source: CHA calculations from the American Community Survey.

3. The Construction-Related Services Industry in the Dallas Fort Worth Metropolitan Area

In addition to the low number of Native American and Other firms mentioned in footnote 17, there were low numbers of Blacks (6), Hispanics (10), Asians (3), and White women (7) sampled in the construction-related services industry. Consequently, reliable estimates could not be made for these groups.

Table 4-11 indicates that non-Whites (except for Native Americans) and White women earn less than White men.

**Table 4-9: Business Formation Rates
Construction-Related Services, 2014 - 2018**

Demographic Group	Business Formation Rates
Black	-----
Hispanic	-----
Native American	-----
Asian/Pacific Islander	-----
Other	-----
White Women	-----
Non-White Male	4.0%
White Male	7.3%

Source: CHA calculations from the American Community Survey.

**Table 4-10: Business Formation Probability Differentials for Selected Groups
Relative to White Men, Construction-related Services, 2014 - 2018**

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

Table 4-11: Wage Differentials for Selected Groups Relative to White Men
Construction-Related Services, 2014 - 2018

Demographic Group	Wages Relative to White Men (% Change)
Black	-7.4%
Hispanic	-7.1%
Native American	6.3%
Asian/Pacific Islander	-15.1%
Other	-16.8%
White Women	-30.5%

Source: CHA calculations from the American Community Survey.

Table 4-12: Business Earnings Differentials for Selected Groups Relative to White Men
Construction-related Services, 2014 - 2018

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 Dallas Fort Worth Metropolitan Area

Table 4-13 indicates that White men have higher business formation rates except Asian/Pacific Islanders. Table 4-14 indicates that only one result is statistically significant (Asian/Pacific Islander). Table 4-15 indicates that statistically significant results are found for four groups (Black; Hispanic; Asian/Pacific Islanders; and White women) and all indicate lower wages relative to White men. Table 4-16 indicates that none of the coefficients for business earnings were statistically significant.

**Table 4-13: Business Formation Rates
Goods, 2014 - 2018**

Demographic Group	Business Formation Rates
Black	1.0%
Hispanic	1.3%
Native American	-----
Asian/Pacific Islander	7.5%
Other	-----
White Women	2.8%
Non-White Male	2.1%
White Male	3.5%

Source: CHA calculations from the American Community Survey.

**Table 4-14: Business Formation Probabilities Relative to White Males
Goods, 2014 - 2018**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-1.9%*
Hispanic	-1.3%*
Native American	-----
Asian/Pacific Islander	3.8%***
Other	-----
White Women	-0.7%

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

* Indicates statistical significance at the 0.05 level.

**Table 4-15: Wage Differentials for Selected Groups Relative to White Men
Goods, 2014 - 2018**

Demographic Group	Wages Relative to White Men (% Change)
Black	-36.2%***
Hispanic	-20.2%***
Native American	-25.1%
Asian/Pacific Islander	-40.2%***
Other	38.2%
White Women	-35.7%***

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

**Table 4-16: Business Earnings Differentials for Selected Groups Relative to
White Men
Goods, 2014 - 2018**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-368.0% ^a
Hispanic	137.0%
Native American	-----
Asian/Pacific Islander	-134.0%
Other	-----
White Women	-3.9%

a. The proper way to interpret a coefficient that is less than -100 percent, such as the value of the coefficient for Blacks in Table 4-16, is the percentage represents the amount non-M/WBEs earn that is more than the group in question. In this case, non-M/WBE firms earn 368 percent more than Black firms.

Source: CHA calculations from the American Community Survey.

* Indicates statistical significance at the 0.05 level.

5. The Services Industry in Dallas Fort Worth Metropolitan Area

Table 4-17 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 4-18 indicates that non-

Whites and White women are less likely to form businesses compared to similarly situated White men and three of the coefficients are statistically significant at the 0.001 level. Table 4-19 indicates that non-Whites and White women earn less than White men. Table 4-20 indicates that business earnings for non-Whites and White women are less than White men except for Asian firms.

Table 4-17: Business Formation Rates
Services, 2014 - 2018

Demographic Group	Business Formation Rates
Black	1.8%
Hispanic	1.8%
Native American	-----
Asian/Pacific Islander	5.4%
Other	-----
White Women	4.2%
Non-White Male	2.9%
White Male	7.6%

Source: CHA calculations from the American Community Survey.

Table 4-18: Business Formation Probability Differentials for Selected Groups
Relative to White Men, Services, 2014 - 2018

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.1%***
Hispanic	-2.8%***
Native American	-----
Asian/Pacific Islander	-0.7%*
Other	-----
White Women	-2.2%***

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

* Indicates statistical significance at the 0.05 level.

**Table 4-19: Wage Differentials for Selected Groups Relative to White Men
Services, 2014 - 2018**

Demographic Group	Wages Relative to White Men (% Change)
Black	-33.6%***
Hispanic	-16.1%***
Native American	-34.2%***
Asian/Pacific Islander	-31.0%***
Other	-44.7%***
White Women	-30.5%***

Source: CHA calculations from the American Community Survey.

*** Indicates statistical significance at the 0.001 level.

**Table 4-20: Business Earnings Differentials for Selected Groups Relative to
White Men
Services, 2014 - 2018**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-79.0%**
Hispanic	-24.9%
Native American	-----
Asian/Pacific Islander	20.8%
Other	-----
White Women	-89.8%***

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 Dallas Fort Worth Metropolitan Area

In addition to the limitations due to insufficient observations mentioned in footnote 17, there were only 8 Black business observations which impacted the ability to analyze firm activity for Black firms in this industry. Table 4-21 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 4-22 indicates that none of the coeffi-

cients were statistically significant. Table 4-23 indicates that non-Whites and White women earn less than White men and all coefficients are statistically significant. Where analyses could be made, Table 4-24 indicates that three business coefficients (Hispanic; Asian/Pacific Islanders; White women) were not statistically significant.

**Table 4-21: Business Formation Rates
Information Technology, 2014 - 2018**

Demographic Group	Business Formation Rates
Black	-----
Hispanic	3.0%
Native American	-----
Asian/Pacific Islander	3.8%
Other	-----
White Women	4.0%
Non-White Male	3.1%
White Male	4.9%

Source: CHA calculations from the American Community Survey.

**Table 4-22: Business Formation Probability Differentials for Selected Groups
Relative to White Men, Information Technology, 2014 - 2018**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-----
Hispanic	-0.9%
Native American	-----
Asian/Pacific Islander	-0.5%
Other	-----
White Women	-1.2%

Source: CHA calculations from the American Community Survey.

Table 4-23: Wage Differentials for Selected Groups Relative to White Men
Information Technology, 2014 - 2018

Demographic Group	Wages Relative to White Men (% Change)
Black	-35.9%***
Hispanic	-22.4%***
Native American	-75.3%**
Asian/Pacific Islander	-17.7%***
Other	-62.5%***
White Women	-22.9%***

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 4-24: Business Earnings Differentials for Selected Groups Relative to White Men

Information Technology, 2014 - 2018

Demographic Group	Earnings Relative to White Men (% Change)
Black	-----
Hispanic	-56.4%
Native American	-----
Asian/Pacific Islander	30.0%
Other	-----
White Women	-87.2%

Source: CHA calculations from the American Community Survey.

C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2012 Survey of Business Owners

Every five years, the Census Bureau administers the *Survey of Business Owners* ("SBO") to collect data on particular characteristics of businesses that report to the Internal Revenue Service receipts of \$1,000 or more.¹⁴⁷ The 2012 SBO was

released on December 15, 2015, so our analysis reflects the most current data available. The SBO collects demographic data on business owners disaggregated into the following groups:^{148, 149}

- Non-Hispanic Blacks
- Latinos
- 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
- Firms where the ownership could not be classified
- Publicly-Owned Firms

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 women-owned firms, the last five 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.

To examine those industry sectors in which City of Arlington purchases, we analyzed economy-wide SBO data on the following sectors:

- Construction
- Professional, Scientific and Technical Services
- Goods
- Other services

147. See <http://www.census.gov/econ/sbo/about.html> for more information on the Survey.

148. Race and gender labels reflect the categories used by the Census Bureau.

149. 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 Latino.

However, the nature of the SBO 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 2-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’s contract data in Chapter III, where we were able to determine sectors at the 6-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.¹⁵⁰ We therefore report 2-digit data for purposes of this analysis.

Table 4-25 presents information on which NAICS codes were used to define each sector.

Table 4-25: 2-Digit NAICS Code Definition of Sector

SBO Sector Label	2-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

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 remainder of Section C of this chapter reports the findings of the SBO analysis. For each sector, we present the data describing the sector and report the disparities within that sector.

1. All Industries

For a baseline analysis, we examined all industries in the State of Texas. Table 4-26 presents data on the percentage share that each group has of the total of each of the following six business outcomes:

- The number of all firms
- The sales and receipts of all firms

150. Even with these broad sector definitions, there were many cases when the Census Bureau did not report information. In these cases, the value will be entered into the table as “s”

- 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 4-26 presents data for the four non-White racial groups:

- Black
- Latino
- Native American
- Asian

Panel B of Table 4-26 presents data for six types of firm ownership:

- Non-White
- White women
- White men
- Equally non-Whites and Whites
- Equally women and men
- Firms that are publicly-owned or not classifiable

Categories in the second panel are mutually exclusive. Hence, minority firms that are equally owned by men and women are classified as 'non-White'. Firms that are equally owned by minorities and Whites and equally owned by men and women are classified as 'Equally non-White and White'.¹⁵¹

151. Some of the figures in Panel B may not correspond to the related figures in Panel A because of discrepancies in how the SBO reports the data.

Table 4-26: Percentage Demographic Distribution of Sales and Payroll Data
All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	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: Distribution of Non-White Firms						
Black	8.89%	0.32%	2.36%	0.22%	0.85%	0.49%
Latino	29.17%	2.51%	12.69%	1.92%	5.25%	3.53%
Native American	0.64%	0.08%	0.54%	0.07%	0.17%	0.13%
Asian	6.46%	1.72%	10.35%	1.60%	3.29%	2.18%
Panel B: Distribution of All Firms						
Non-White	45.42%	4.74%	26.27%	3.90%	9.71%	6.48%
White Women	16.39%	2.56%	12.98%	2.31%	5.00%	4.08%
White Men	29.87%	19.83%	42.92%	19.27%	26.19%	25.64%
Equally Non- White & White	1.07%	0.37%	1.74%	0.33%	0.78%	0.55%
Equally Women & Men	5.71%	1.96%	9.87%	1.80%	3.40%	2.67%
Firms Not Classifiable	1.50%	70.53%	6.11%	72.38%	54.89%	60.53%
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CHA calculations from Survey of Business Owners.

Since the central issue is the possible disparate treatment of non-White and White women firms, Table 4-27 re-aggregates the last four groups—White men; equally non-White and White; equally women and men; and firms not classifiable—into one group: Not non-White/Not White women.¹⁵² We then present the shares each group has of the six indicators of firm utilization. These data were then used to calculate three disparity ratios, presented in Table 4-28:

152. 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.

- Ratio of sales and receipts share for all firms over the share of total number of all 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 firms for Black firms is 3.62 percent (as shown in Table 4-28). This is derived by taking the Black share of sales and receipts for all firms (0.3 percent) and dividing it by the Black share of total number of all firms (8.9 percent) that are presented in Table 4-27. If Black-owned firms earned a share of sales equal to their share of total firms, the disparity would have been 100 percent. An index less than 100 percent 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 percent" rule that a ratio less than 80 percent presents a *prima facie* case of discrimination.¹⁵³ All disparity ratios for non-White firms and White women firms are below this threshold.¹⁵⁴ Examining table 4-28, 17 of the 18 disparity ratios for non-White firms and White women firms are below the 80 percent threshold.

Table 4-27: Demographic Distribution of Sales and Payroll Data – Aggregated Groups
All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	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: Distribution of Non-White Firms						
Black	8.9%	0.3%	2.4%	0.2%	0.8%	0.5%
Latino	29.2%	2.5%	12.7%	1.9%	5.3%	3.5%

153. 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.").

154. Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results are not conducted.

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	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)
Native American	0.6%	0.1%	0.5%	0.1%	0.2%	0.1%
Asian	6.5%	1.7%	10.4%	1.6%	3.3%	2.2%
Panel B: Distribution of All Firms						
Non-White	45.4%	4.7%	26.3%	3.9%	9.7%	6.5%
White Women	16.4%	2.6%	13.0%	2.3%	5.0%	4.1%
Not Non-White/Not White Women	38.2%	92.7%	60.7%	93.8%	85.3%	89.4%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners.

Table 4-28: Disparity Ratios of Firm Utilization Measures
All Industries, 2012

	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	3.62%	9.17%	57.98%
Latino	8.58%	15.12%	67.30%
Native American	13.14%	13.30%	76.33%
Asian	26.66%	15.40%	66.34%
Panel B: Disparity Ratios for All Firms			
Non-Whites	10.43%	14.83%	66.76%
White Women	15.63%	17.76%	81.50%
Not Non-White/Not White Women	242.88%	154.50%	104.87%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners.

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

Of the 16 disparity ratios for non-White firms and White women firms presented in Table 4-29, 12 fall under the 80 percent threshold.

**Table 4-29: Disparity Ratios – Aggregated Groups
Construction, 2012**

	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	18.62%	s	s
Latino	19.51%	36.60%	67.00%
Native American	36.34%	32.06%	80.14%
Asian	47.90%	46.60%	90.44%
Panel B: Disparity Ratios for All Firms			
Non-White	20.48%	38.20%	69.89%
White Women	92.45%	49.52%	89.15%
Not Non-White/Not White Women	207.49%	123.24%	104.51%
All Firms	100.00%	100.00%	100.00%

Source: CHA calculations from Survey of Business Owners.

3. Construction-Related Services

Of the 18 disparity ratios for non-White firms and White women firms presented in Table 4-30, 12 are under the 80 percent threshold.

Table 4-30: Disparity Ratios – Aggregated Groups
Professional, Scientific, and Technical Services, 2012

	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	13.21%	26.05%	170.60%
Latino	24.81%	35.69%	179.04%
Native American	27.69%	24.04%	164.27%
Asian	49.37%	36.87%	223.08%
Panel B: Disparity Ratios for All Firms			
Non-White	27.84%	34.65%	193.44%
White Women	26.84%	30.53%	173.42%
Not Non-White/Not White Women	173.61%	135.71%	93.94%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners.

4. Goods

Of the 18 disparity ratios for non-White firms and White women firms presented in Table 4-31, 15 fall under the 80 percent threshold.

Table 4-31: Disparity Ratios – Aggregated Groups
Goods, 2012

	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	1.83%	7.55%	82.29%
Latino	5.77%	11.74%	78.42%
Native American	9.02%	12.08%	102.45%
Asian	18.44%	9.97%	67.37%
Panel B: Disparity Ratios for All Firms			

	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
Non-White	7.96%	10.77%	73.97%
White Women	9.11%	14.51%	93.05%
Not Non-White/Not White Women	246.36%	160.74%	102.43%
All Firms	100.00%	100.00%	100.00%

Source: CHA calculations from Survey of Business Owners.

5. Services

Of the 16 disparity ratios for non-White firms and White women firms presented in Table 4-32, 16 fall under the 80 percent threshold.

**Table 4-32: Disparity Ratios – Aggregated Groups
Services, 2012**

	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	8.2%	18.1%	s
Latino	16.7%	25.8%	64.3%
Native American	22.8%	22.6%	s
Asian	40.8%	23.6%	63.1%
Panel B: Disparity Ratios for All Firms			
Non-White	18.6%	24.2%	63.6%
White Women	24.7%	26.2%	72.9%
Not Non-White/Not White Women	261.6%	157.1%	108.9%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners.

D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. As presented in Chapter V, 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 the City's contracts and subcontracts, as well as expand the capacities of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There is an extensive body of 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.¹⁵⁵

1. Survey 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 1993, 1998 and 2003. These Surveys of Small Business Finances ("SSBF") 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.¹⁵⁶

2. Minority Business Development Agency Report

A 2010 report to the U.S. Department of Commerce summarizes these Surveys, results from the Kauffman Firm Survey,¹⁵⁷ data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program¹⁵⁸ and additional extensive research on the effects of discrimination on opportunities for MBEs. The most comprehensive report of its kind, "Dis-

155. See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," *Journal of Political Economy*, (1989); Evans, David S. and Leighton, Linda "Some empirical aspects of entrepreneurship," *American Economic Review*, (1989).

156. 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),

157. http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/06/kauffmanfirmsurvey2013.pdf.

parities in Capital Access Between Minority and Non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs”, found that

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 use to acquire other businesses.... [T]he largest single actor explaining racial disparities in business creation rates are differences in asset levels.”¹⁵⁹

Some of the key findings of the Report include:

- Minority-owned firms are less likely to receive loans than non-minority owned firms regardless of firm size. According to an analysis of data from the *Survey of Small Business Finances*, for firms with gross receipts over \$500,000, 52 percent of non-minority owned firms received loans compared to 41 percent of minority-owned firms.
- When minority-owned firms do receive financing, it is for less money and at a higher interest rate than non-minority owned firms regardless of the size of the firm. Minority-owned firms paid an average of 7.8 percent in interest rates for loans compared to 6.4 percent for non-minority owned firms. Among firms with gross receipts under \$500,000, minority-owned firms paid an average of 9.1 percent in interest rates compared to 6.9 percent for non-minority owned firms.
- Minority owned firms are more likely to be denied loans. Among firms with gross receipts under \$500,000, loan denial rates for minority firms were about three times higher, at 42 percent, compared to those of non-minority owned firm, at 16 percent. For high sales firms, the rates of loan denial were almost twice as high for MBEs as for non-MBEs.
- MBEs pay higher interest rates for business loans. For all firms, MBEs paid 7.8 percent on average for loans compared with 6.4 percent for non-MBEs. The difference was smaller, but still high, between MBEs and non-MBEs with high sales.
- Minority-owned firms receive smaller equity investments than non-minority owned firms, even when controlling for detailed business and owner characteristics. The differences are large and statistically

158. <http://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/sba-loan-programs/real-estate-and-eq>.

159. Fairlie, R. W. and Robb, A., “*Disparities in Capital Access Between Minority and Non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs*,” U.S. Department of Commerce, Minority Business Development Agency, 2010, pp. 22-23.

significant. The average amount of new equity investments in minority-owned firms receiving equity is 43 percent of the average of new equity investments in non-minority owned firms. The differences were even larger for loans received by high sales firms. Yet, venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.¹⁶⁰

- Disparities in total investments in minority-owned firms compared to those in non-minority owned firms grew after the first year of business operations. According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their firms were about 18 percent lower in the first year of operations compared to those of non-minority owned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their firms were about 36 percent lower compared to those of non-minority owned firms.
- 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.¹⁶¹

These findings are consistent with those of the 2012 study. Examining the *Survey of Small Business Finances* ("SSBF"), conducted by the Federal Reserve Board and the U.S. Small Business Administration from 1999-2003, the study found that MBEs experience significant barriers compared to similar non-M/WBEs. When minority-owned firms did apply for a loan, their loan requests were substantially more likely to be denied than non-minorities, even after accounting for differences such as firm size and credit history. Loan denial rates ranged from 8 to 24 percentage points higher than for non-minority male-owned small businesses. When minority-owned firms did receive a loan, they were obligated to pay higher interest rates on the loans than comparable non-minority owned firms. These results strongly suggest that MBEs do not enjoy full and fair access to the credit necessary to perform on the City's prime contracts and associated subcontractors.

3. Federal Reserve Board Small Business Credit Surveys

The Development Office of the 12 Reserve Banks of the Federal Reserve System have conducted Small Business Credit Surveys ("SBCS") to develop data on small business performance and financing needs, decisions, and outcomes.

160. See Bates, T., "Venture Capital Investment in Minority Business," *Journal of Money Credit and Banking* 40, 2-3 (2008).

161. Fairlie, R.W. and Robb, A., *Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States*, (Cambridge: MIT Press, 2008).

a. 2016 Small Business Credit Survey

The 2016 Small Business Credit Survey 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.¹⁶² It also reported results from woman-owned small employer firms, defined as firms where 51 percent or more of the business is owned by women, that compared the experiences of these firms with men-owned small employer firms

i. The 2016 Report on Minority-Owned Businesses

The Report on Minority-Owned Businesses provided results for White-, Black- or African American-, Hispanic-, and Asian- or Pacific Islander-owned firms.

Demographics

The SBCS revealed 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 most in the healthcare and education industry sectors (24 percent). Asian-owned firms were most concentrated in professional services and real estate (28 percent). Hispanic-owned firms were most concentrated in non-manufacturing goods production and associated services industry, including building trades and construction (27 percent). White-owned firms were more evenly distributed across several industries but operated most commonly in the professional industry services and real estate industries (19 percent), and nonmanufacturing goods production and associated services industry (18 percent).¹⁶³

Profitability Performance Index

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 percent) and Black-owned firms (42 percent). 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.

162. When the respondent sample size by race for a survey proved too small, results were communicated in terms of minority vis-à-vis non-minority firms.

163. Forty-two percent of Black-owned firms, 21 percent of Asian-owned firms, and 24 percent of Hispanic-owned firms were smaller than \$100K in revenue size compared with 17 percent of White-owned firms.

Financial and Debt Challenges/Demands

The SBCS found that 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 White-owned firms when choosing where to apply compared to Black-, Hispanic- and 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 one million dollars. Black-owned firm application rates for new funding were 10 percentage points higher than White-owned firms; however, their approval rates were 19 percentage points lower. A similar but less pronounced gap existed between Hispanic- and Asian-owned firms compared with White-owned firms. Of those approved for financing, only 40 percent of minority-owned firms received the entire amount sought compared to 68 percent 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-minority owned firms. Hispanic- and Black-owned firms reported the highest approval rates with online lenders.¹⁶⁴

Low credit score and lack of collateral were the top reported reasons for denial of Black- and Hispanic-owned firms. Satisfaction levels were lowest with 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 percent of White-owned firms and 21 percent of Hispanic- and Asian-owned firms. The use of personal funds

164. The share of minority-owned firms receiving at least some financing was lower across all financing products, compared with nonminority.

was the most common action taken in response to financial challenges, with 86 percent of Black-owned firms, 77 percent of Asian-owned firms, 76 percent of White-owned firms, and 74 percent of Hispanic-owned firms using this as its source.

A greater share of Black-owned firms (36 percent) and of Hispanic-owned firms (33 percent) reported existing debt in the past 12 months of less than \$100,000, compared with 21 percent of White-owned firms and 14 percent of Asian-owned firms. Black-owned firms applied for credit at a higher rate and tended to submit more applications, compared with 31 percent of White-owned firms. Black-, Hispanic-, and Asian-owned firms applied for higher-cost products were more likely to apply to online lenders compared with White-owned firms.

Business Location Impact

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 moderate-income minority zip codes experienced lower approval rates than minority-owned firms located in other zip codes.

Non-Employer Firms

Non-employer firms reported seeking financing at lower rates and experienced lower approval rates than employer firms, with Black-owned non-employer firms and Hispanic-owned non-employer firms experiencing the most difficulty.

ii. The Report on Women-Owned Businesses

The Report on Women-Owned Businesses provides results from woman-owned small employer firms where 51 percent or more of the business is owned by women. The Report compared the experience of these firms with men-owned small employer firms.

Firm Characteristics: Women-Owned Firms Start Small and Remain Small and Concentrate in Less Capital-Intensive Industries

The SBCS found that 20 percent of small employer firms are women-owned, compared to 65 percent men-owned and 15 percent equally owned. Women-owned firms generally had smaller revenues and fewer employees than men-owned small employer firms. These firms tended to be younger than men-owned firms.

Women-owned firms were concentrated in less capital-intensive industries. Two out of five women-owned firms operated in the healthcare and education or professional services and real estate industries. Men-owned firms were concentrated in professional services, real estate, and non-manufacturing goods production and associated services.

Profitability Challenges and Credit Risk Disparities

Women-owned firms were less likely to be profitable than men-owned firms. These firms were more likely to report being medium or high credit risk compared to men-owned firms. Notably, gender differences by credit risk were driven by women-owned startups. Among firms older than five years, credit risk was indistinguishable by the owner's gender.

Financial Challenges During the Prior Twelve Months

Women-owned firms were more likely to report experiencing financial challenges in the prior twelve months: 64 percent compared to 58 percent of men-owned firms. They most frequently used personal funds to fill gaps and make up deficiencies. Similar to men-owned firms, women-owned firms frequently funded operations through retained earnings. Ninety percent of women-owned firms relied upon the owner's personal credit score to obtain financing.

Debt Differences

Sixty-eight percent of women-owned firms had outstanding debt, similar to men-owned firms. However, women-owned firms tended to have smaller amounts of debt, even when controlled for the revenue size of the firm.

Of debt held, women were more likely than their male peers to hold unsecured debt for their businesses. Regardless of revenue size, women-owned firms were less likely than their male counterparts to use business assets as collateral, compared to similarly-sized, men-owned firms (40 percent compared to 51 percent of men-owned firms).

Demands for Financing

Forty-three percent of women-owned firms applied for financing. Similar to men-owned firms, women-owned firms most frequently applied for loans and lines of credit. Both women- and men-owned firms were most successful at small banks. Both reported that the most common reason for financing was business expansion. Women-owned appli-

cants tended to seek smaller amounts of financing even when their revenue size was comparable.

Overall, women-owned firms were less likely to receive all of the financing applied for compared to men-owned firms. Women-owned firms received a higher approval rate for U.S. Small Business Administration loans compared to men-owned firms. Women-owned firms with lower credit were less likely to be approved for business loans than their male counterparts with similar credit (68 percent compared to 78 percent).

Firms That Did Not Apply for Financing

Women-owned firms reported being discouraged from applying for financing for fear of being turned down at greater rate: 22 percent compared to 15 percent. Women-owned firms cited low credits scores more frequently than men-owned firms as their chief obstacle in securing credit. By contrast, men-owned businesses were more likely to cite performance issues.

Lender Satisfaction

Women-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.

b. 2018 Small Business Credit Survey

The 2018 Small Business Credit Survey focused on minority-owned firms. Queries were submitted to businesses with fewer than 500 employees in the third and fourth quarters of 2018 and generated 6,614 responses from employer firms relative to information on the race or ethnicity of a firm's ownership. Data were weighted by the race or ethnicity of firm ownership, gender of the firm's owner(s), geographic location (census division and rural or urban location), number of employees, firm age, and industry to ensure that the data is representative of the nation's small employer firm demographics.

i. Demographics

The Survey Sample consisted of the following components:

2018 Unweighted Sample		2018 Weighted Sample	
White	74%	White	82%

018 Unweighted Sample		2018 Weighted Sample	
Black	13%	Black	2%
Asian	4%	Asian	11%
Hispanic	8%	Hispanic	5%

ii. Performance

Larger shares of Black- and Hispanic-owned firms reported profitability. By contrast, the share of profitable Asian-owned firms declined.

iii. Future Expectations

While Black- and Hispanic-owned firms remained most optimistic about the future, declining shares of firms expected future revenue and employee growth.

iv. Financial Challenges During the Prior Twelve Months

While larger shares of Black- and Hispanic-owned firms reported financial difficulties compared to White-owned businesses, the share of White-owned firms reporting challenges increased between 2016 and 2018. Paying operating expenses (including wages) was of most concern. Black-owned firms used personal funds more frequently than White-owned firms, and less frequently took on additional debt when faced with financial challenges.

v. Funding Business Operations

White-owned firms were less likely to use personal funds to fund business operations compared to minority-owned firms. They were also more likely to use retained business earnings.

White-owned firms more frequently used loans or lines of credit. Black-owned firms were less likely to export goods and, therefore, to use trade credit.

vi. Personal Finances

Black- and Hispanic-owned firms relied more frequently on personal credit scores. Large shares of Black and Hispanic firm owners reported personal credit scores below 720. Larger shares of White and Asian firm owners reported scores in excess of this amount.

vii. Debt and Collateral

Black-owned firms less frequently had outstanding debt or relied upon business assets to secure debt. Hispanic-owned firms less frequently relied on personal guarantees or business assets as collateral.

viii. Demand for Financing

In 2018, a smaller share of Asian-owned firms and a larger share of Hispanic-owned firms applied for financial assistance, compared to White-owned firms. The share of Black- and Asian-owned firms that applied for financing decreased between 2016 and 2018.

Larger shares of Asian- and Black-owned firms applied for financing to be able to meet operating expenses. Larger shares of Hispanic- and Black-owned firms applied to expand or pursue new opportunities compared to White-owned businesses. The most frequent reasons for applying for financing were desire to expand the business, pursue new opportunity or acquire business assets followed by desire to meet operating expenses.

ix. Non-Applicant Findings

Minority-owned firms less frequently than White-owned firms reported that they did not apply for credit because they had sufficient financing in place. Larger shares of minority-owned firms reported not applying for financing as they believed that they would be turned down by lenders.

x. Financing Amounts and Shortfalls

On average, Black-owned firms tended to apply for smaller amounts of financing. They were nearly twice as likely to be turned down completely compared to White-owned businesses. Asian- and White-owned applicant firms more frequently received approval for greater shares of their applications.

xi. Financing Received by Risk and Denial Reasons

Minority- and White-owned firms did not significantly differ relative to why they received less financing or why their applications were denied. The reasons for denial were: (1) low credit score; (2) too much debt already; (3) insufficient collateral; (4) too new/insufficient credit history; and (5) weak business performance.

xii. Credit Products

Most credit products firms sought did not differ significantly by race or ethnicity of firm ownership. However, Hispanic-owned firms turned to merchant cash advances more frequently than White-owned firms.

xiii. Loan or Line of Credit Sources

A larger share of Hispanic-owned applicants turned to large banks or online lenders for financing compared to White-owned applicants.

However, they were less likely to turn to small banks or community development financial institutions (“CDFI”). Black-owned firms were more likely to turn to online lenders, credit unions, and CDFIs. They were also less likely to turn to small banks.

xiv. Reasons for Applying at a Source

Reasons for purchasing financing at large banks, small banks, or online lenders did not differ markedly for minority- or White-owned firms. However, minority-owned firms less frequently cited an existing relationship with a lender as a reason to apply for financing at either a small bank or an online lender.

xv. Lender Satisfaction

A smaller share of Asian-owned firms was dissatisfied with their lender in 2018 compared to 2016. A larger share of Black- and Hispanic-owned firms were dissatisfied with their lender than were White-owned firms. White-owned firms were more satisfied with their lenders at small or large banks than were minority-owned firms.

xvi. Challenges Applying at a Source

Larger shares of minority-owned firms reported experiencing challenges in their application process or experienced high interest rates when applying at small banks.

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 self-employed. This was evident in the large number of non-M/WBEs in our interview groups who were second or even higher generation firms doing business for the market area. This 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.¹⁶⁵ Black men have been found to face a “triple disadvantage”; they are less likely than White men to:

1. Have self-employed fathers;

165. Fairlie, R W., “The Absence of the African-American Owned Business, An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, (1999).

2. Become self-employed if their fathers were not self-employed; and
3. To follow their fathers into self-employment.¹⁶⁶

Intergenerational links are also critical to the success of the businesses that do form.¹⁶⁷ Working in a family business leads to more successful firms by new owners. One study found that only 12.6 percent of Black business owners had prior work experiences in a family business as compared to 23.3 percent of White business owners.¹⁶⁸ 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.¹⁶⁹ The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.¹⁷⁰ M/WBEs in our interviews reported that they felt excluded from the networks that help to create success in the highway construction industry.

166. Hout, M. and Rosen, H. S., "Self-employment, Family Background, and Race," *Journal of Human Resources* 35, no.4 (2000).

167. 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*, (2007).

168. *Id.*

169. Allen, W. D., "Social Networks and Self-Employment," *Journal of Socio-Economics* 29, no.5 (2000).

170. "Increasing MBE Competitiveness through Strategic Alliances", Minority Business Development Agency, 2008.

V. BUSINESS OWNER' EXPERIENCES IN THE CITY OF ARLINGTON'S MARKET AND DOING BUSINESS WITH THE CITY OF ARLINGTON

A. Qualitative Evidence Standards

In addition to the quantitative data presented in Chapter III and Chapter IV, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities in the agency's marketplace. This evidence 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 well as the likely efficacy of any race- and gender-neutral remedies employed by the City. As discussed in Chapter II, this type of anecdotal data has been held by the courts to be relevant and probative under the Fourteenth Amendment of whether the City has a "strong basis in evidence" to enact a race- and gender-conscious program, and if so, what narrowly tailored remedies are supportable to reduce 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."¹⁷¹ 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.¹⁷² While anecdotal evidence is insufficient standing alone, "[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may,

171. *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

172. *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).

however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”¹⁷³ [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.”¹⁷⁴

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. “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.”¹⁷⁵ 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”¹⁷⁶.

B. The City of Arlington’s Local and M/WBE Policy

The City of Arlington adopted its Local and M/WBE Policy in 2013. The Policy set a 20 percent aspirational goal for the utilization of minority- and woman-owned firms on the City’s construction and professional services contracting activities. In May of 2016, the City Council increased this goal to 25 percent and updated the policy to require more reporting from prime contractors. The Policy covers all City departments.

Solicitations for expenditures of more than \$3,000 but less than \$50,000 follow the State of Texas’ Historically Underutilized Business (“HUB”) requirements that at least two HUBs must be solicited. Documented efforts to engage a HUB must be provided if none is identified. For formal solicitations— that is, contracts \$50,000 or greater— the prime contractor must provide a subcontracting plan that complies with the Local and M/WBE Policy’s requirement to make a good faith effort to use local and M/WBE businesses.

173. *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1120, 1530 (10th Cir. 1994) (“*Concrete Works II*”).

174. *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 926 (11th Cir. 1997).

175. *H.B. Rowe Co., Inc. v. Tippet*, 615 F.3d 233, 249 (4th Cir. 2010).

176. *Concrete Works II*, 321 F.3d at 989.

The M/WBE Coordinator is the primary administrator of the Policy. The Coordinator serves as an active partner with City departments to ensure that competitive bidding practices are followed and that Local and M/WBE communities are engaged in executing the provisions of the policy. The M/WBE Coordinator's role encompasses the following responsibilities:

- Implementation of Policy standards and procedures and promoting equal participation for M/WBEs on City contracts;
- Developing and managing a M/WBE Supplier list that can be accessed by City departments and businesses;
- Verifying certification status of M/WBEs;
- Monitoring and reporting on M/WBE business growth and progress on M/WBE participation using the City's Supplier Portal, including periodic reports to the City Council;
- Developing outreach and supportive service opportunities with local assist organizations and businesses to increase local and M/WBE participation; and
- Assisting City departments with identification of subcontracting opportunities prior to solicitation and with reviews and debriefings post award selection.

The City accepts MBE and WBE certifications from the North Central Texas Regional Certification Agency ("NCTRCA"), HUB, the Texas Department of Transportation ("TxDOT"), the Dallas Fort Worth Minority Supplier Development Council ("DFWMSDC"), and the Woman's Business Council Southwest ("WBCSW").

The City has developed several initiatives to facilitate the utilization of M/WBEs. These include:

- An online supplier database listing local and M/WBE businesses that City Departments or businesses can use to find M/WBE firms.
- Modification of bid packages to include language encouraging the use of M/WBEs in accordance with the Policy. There are special provisions governing compliance with the Policy. Bidders must submit the Prime, Subs & Minority/Women Business Enterprise (M/WBE) Report that requires the bidder to list of all subs, whether they are a minority or woman, the firms' certification, and anticipated dollar amounts to M/WBE subcontractors. The City requests that the Report be completed and returned with executed contracts.
- The City holds monthly supplier meetings with NCTRCA and partners/co-sponsors events with local advocacy agencies and municipalities, such as the Arlington Chamber of Commerce, the National Association of Minority Contractors local chapter, the Fort Worth Hispanic Chamber and the City of Fort Worth. In 2019, the City hosted/sponsored between 5 and 12 events per

month. These included “meet and greets”, roundtables, luncheons and forums.

- The City also offers a large number of small business resources. A listing of these resources can be found both on the City’s website and in the Small Business Resource Guide 2019 that is electronically published in a PDF format. These resources include:
 - Business counseling through the Tarrant Small Business Development Center and its satellite offices and the Fort Worth SCORE Mentors; these services are free of charge and cover all aspects of running or starting a business;
 - A video and Q&A about doing business with the City Purchasing Division;
 - Arlington Public Library networking events and digital workshops; and
 - Workforce development programs and grants.

C. Business Owners Experiences

To explore this type of anecdotal evidence of possible discrimination against minorities and women in the City of Arlington’s geographic and industry markets and the effectiveness of its current procurement policies, we conducted a public webinar, and small group business owner and stakeholder interviews in person. Thirty-four individuals participated. We met with a broad cross section of business owners from the City’s geographic and industry markets. Firms ranged in size from large national businesses to established family-owned firms to new start-ups. We sought to explore M/WBEs’ experiences in seeking and performing City and private sector prime contracts. We also elicited recommendations for effective measures to reduce barriers and create equal opportunities. We further interviewed larger general contractors who have performed work for the City about their experiences with the City’s M/WBE policy, and their suggestions for how the City might move forward in its inclusion efforts.

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 by numerous participants.

Appendix D 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 Arlington marketplace.

1. Minority- and Woman-Owned Businesses

Most minority and woman owners reported that they continue to face barriers to full and fair opportunities to compete because of their race or gender.

Discriminatory attitudes, stereotypes and negative perceptions of their qualifications, professionalism and capabilities from other business owners negatively impact M/WBEs. There can be a stigma to being an MBE because the assumption is that minority firms are less qualified. While sometimes subtle,¹⁷⁷ these biases about minorities' and women's lack of competence affect all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. M/WBEs often encounter a closed network.

I do face a significant barrier in [the stereotype that] Hispanics do construction, not professional services.... From an issue of perception, I don't get work because most of my competitors are African-American, and the feeling and perception is Hispanics over-indicate...are over-represented in construction. Therefore, we'll reserve professional services for other unrepresented groups. And so that automatically pushes me out.

We're not even given a small opportunity because the fact of the matter is, we're just considered, and here it is, a minority owned firm.

There remains a "good ole boy" network that can exclude women and people of color. Access to business networks was seen as key to success in obtaining work in general and from the City in particular.

One thing that I'm frustrated with ... [is] having to deal with all of the old boys' network.

It's who you know that can open the doors for you.

We are always at a disadvantage because we are not in a situation where we can build those relationships. Going to the country club here and having lunch with the mayor and with all 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.

I could not get business with the City of Arlington because even though they say they have a minority vendor program, they still allow management to determine who they use. Those

177. See, e.g., <http://www.sciencedirect.com/science/article/pii/S0191308509000239>.

managers work with people that they know that they feel comfortable with and their buddy. It is a buddy system.

It is systematic and, I think it is race and gender related in this regard. There is definitely a good-old-boy system. They only work and deal with the people they know. Right? And if the people they know are just like them because the decision makers are usually Caucasians, and I hope I am not being too racist, but it is usually people who have historically been in positions of power. Then the people they know and trust tend to mimic them, right? Which is not us.... So, if the good-old-boy system is based on people I know and people I am comfortable with, it has a disparate effect on African-Americans and minorities. And while it does impact White people, the impact on White people is significantly less in terms of numbers than it is on African-Americans, and women, and Hispanics.

Definitely it is a good old boy system and it's meant to keep us cut out where we're not actually getting the work.

Many participants described entrenched relationships at the City as major impediments to obtaining work.

There's no real aggressive movement on your part to recruit and require these plans to hire African-Americans.

It is harder for a minority firm to get a job from the government, than it is for me to go get work on the private sector.

It's easier to get private sector jobs.

Several owners reported that the City prefers to work with large, national "name" firms.

We can't even get an interview.... There were other firms too that I know submitted high quality proposals and so I didn't put a lot of stock into the debrief but appreciated it.... [The City] said they encouraged small firms to submit and they understand how much time it takes. But [in the end hired an international firm].... Always state the budget, and if you have a preference for a team with no subs and you want a full-service firm, put that in the proposal so that you're not wasting other firms' time.

[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.

Our large competitors team up with the buyer to keep us from doing business with government and corporate companies. I have faced this situation numerous times over the years. The problem in my opinion is within the city agencies. They knowingly or unknowingly allow the big companies to retain the business for themselves. It is unfortunate that the buyers must be made to do business with DBE/HUB/MBE companies.

In the planning department here, I don't feel they discriminate against me because I'm a woman. I think it's the size of the company. I think there's a legitimate fear, there's a risk tolerance and they feel they're more secure with [name] or a larger firm because of the amount of resources they have.

"Debriefings" were not offered to professional service firms, so M/WBEs and other small firms cannot learn how to improve their submissions.

We go through a fairly arduous process of putting our qualifications together and submitting the City of Arlington and the City provides zero feedback or zero anything on who was selected, why they were selected, how you were ranked in the selection, what was wrong with your proposal.

Contract size is a major impediment to M/WBEs performing work for the City, especially as prime vendors. "Unbundling" contracts into smaller scopes or less complex scopes was suggested as a way to increase opportunities for M/WBEs.

Break up some of those projects.

[There] should be a concerted effort on the part of the City of Arlington, to make those opportunities [on informally procured contracts] available to people just like us. That significantly reduces the risk and it gets our foot in the door.

Prime work is especially difficult to obtain.

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.

They're getting the cream and we're getting the crumbs. The first tier sub is getting the cream and it could be another trucking company, especially I know on [project], the second tier sub was a firm that's trucking in excavation, so they did all of the gravy work.

They can't sole source necessarily, but they write it so that you have to go to the big box store with orange and not the blue logo. And so that's how we get priced out also because then we have to buy from that particular entity who then does not have to be flexible and/or negotiate their prices.... So, if the City could at least take a look at that in special instances [it would be helpful].

Many M/WBEs found it difficult to access information on City opportunities or to network with City staff.

It is access and education.

Arlington used to send that information out or have that out publicly You basically got to weed through all of that unnecessary email data [from the BidSync system] to find what's out there whereas the city of Arlington may not even have that on their website as a something that's coming up.

More targeted outreach and interaction with City contracting officers was suggested by several interviewees.

[Post a] list of projects that come in this year or this quarter ... this is what has been approved and then who's going to be in charge of each project. So, those are the things that give you transparency and visibility.

My recommendation is they start to do lunch and learns 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 one on 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.

I like the concept too about the building relationships part, where you actually can build relationships with staff and have a substantive conversation with them.

These types of barriers led minorities and women to almost unanimous agreement that M/WBE goals will be necessary to level the playing field and equalize opportunities on City prime contracts and subcontracts.

We got a lot of our starts in the [DBE] program.

There are still industries where the private sector is much more difficult to get in than in the government sector.

Some M/WBEs were hopeful that the study and new City efforts will benefit their communities.

[The new City administration is] going to be helpful in some way for minorities to do business with the City of Arlington.

2. Majority-Owned Businesses

We also sought input from non-diverse firms about their experiences with the city's M/WBE policy. General contractors overall reported while the City sets an aspirational goal of 25 percent M/WBE participation on construction and professional services contracts, they rarely meet that target.

Arlington doesn't require you to hit the 25 percent ... [we] very rarely hit 25 percent.

A lot of times it's a good faith effort that we turn in. We don't actually hit the goals.

We follow the [City's] policy, we participate, we show them who we contacted. It's all well and good and that's how we like it, at least at least for ease of bidding. And it's actually a plus, when we go to cities and entities who don't have an M/WBE or DBE program, we look at that and say, "Okay great. That's one less thing we have to worry about." And it makes us want to bid there. I'm not trying to say we're trying to cut out M/WBEs by any means. If they're qualified, we want to use them.

General contractors often found it difficult or infeasible to use M/WBEs. They reported there are not sufficient qualified firms available to do the work.

We've tried to hire women to do the job and they don't want to get out in the field and do that kind of work.

Our biggest issue as far as trying to meet the City's MWBE policy is the simple availability of these qualified subs. We have so many things that we purchase or subcontract out for which there just are no participants in the marketplace. And even when there are so-called participants that are on a list with [the

North Central Texas Regional Certification Authority] or whatever, they really don't do the work. They may say that they're an excavating contractor, but they're not going to quote a street reconstruction project because it's just too far from their main line of work.

Some objected to subcontracting work they would prefer to self-perform in order to meet goals.

If they're going to do anything, please don't make us give away our work, the things that we do in order to meet a goal. I mean, that's my biggest pet peeve. I know it sounds selfish, but we control the work. We do it to our standard. We have to answer to whatever mistakes are made.

Several construction general contractors stated that low price governs their selection of subcontractors. Using a certified firm that may cost more violates the sanctity of the bidding process.

As a general contractor in this field, that's the only way to maintain credibility and maintain the best relationships with your subcontractors is they have to compete for the subcontract by the same parameters that you have to compete for the general contract. In other words, I'm the lowest qualified bidder with the City, I'm going to get that job. They don't have the option to choose anybody else. By law that has to happen. On our level at the next tier down with the subcontractor, we honor that same commitment. As long as they're qualified and they give the low price, it's their job. I don't care if it's a dollar difference. That's the way that has to be. And if that can all be harmonized and made to play with a minority business program, then fine. I would never let myself get in a situation where I used a minority subcontractor simply to meet a goal. I'd rather let the job go. Because the higher honor is in maintaining the business relationship with our subcontractors. If I start giving subcontractors the impression that something other than their qualifications and their price is going to drive my selection, I'm done as a GC, they won't trust me ever again.

A few general contractors stated that some MBEs do shoddy work.

There's only one other company in town out of the five certified companies that is a minority company. And one nice thing about them, they make work for us. They do a poor job. They go

in, get paid. We're behind them two years later fixing their stuff.

Others stated they use M/WBEs whenever they are qualified and are price competitive.

We have our contractors that have reached back out to us that we use in Fort Worth, and in Arlington even, that are minority contractors. So, most of the people that we would use are the people that we've been using.... They're the minority and they perform and work great. We have a great relationship with them. So, any project we have, we use them.

Several prime contractors had advice for the City about revising its race- and gender-conscious policy. Contract specific M/WBE goals, rather than a blanket or "standard" goal, would tailor the requirements to the scopes of work of the project.

We go out and we have to subcontract trades that we don't typically do, specialized trades, like electrical, utilities, whatever, that's what we're looking for. That's the stuff that we need help on for subs. And a lot of times, you have a job with a goal that's just straight across the board, 25 percent, they don't consider the type of job it is.... [Set] a realistic goal based on the availability of subcontractors for the type of work that they've put out.

While not opposed to a new initiative, they cautioned that the standards must be flexible, with reasonable paperwork requirements.

Maybe model it like Fort Worth's if you're going to do it, but don't do it like the airport.... For DFW, the guy sat up there, and he said, "It will be a waste of time to do a good faith effort. We have done our due diligence, the MBE program's due diligence." He said, "There are subcontractors who can fulfill this 25 percent requirement." So, we are not bidding the job because it is a project that has \$50,000 a day L[iquidated] D[amage]s and we're not going to give our work to somebody we don't know just because they're an MBE.

The good faith [process] has to be reasonable.

Price tags go up when you start making contractors do all this work too, all the paperwork. I mean, that's more time going into their proposals. That's more things we've got to mess with.

Some participants questioned the need for any program.

The people that have made it who are minority, as well as the people who have made it who are non-minority, had made it based on their own enterprise and dedication. Yeah, some of them got some breaks, but even the ones that didn't get breaks, a lot of them made it. The type of person who is self-reliant isn't looking for a program to give them help. They're just going to go out there and just freaking do it. And that's what I did. I didn't expect any help, look for any help, or want any help. Sure, I needed capital. My dad helped me. My bank would have helped me. Somebody would have helped me there.

Others acknowledged that most of the general contractor owners and representatives got their start in the construction industry through family connections.

My old man is one of the owners of [name].... A lot of [construction] companies are family oriented.... It's a heritage thing as well.

My dad loaned me the money, with interest and I paid it back with interest.... He was successful at what he did, and so I was able to build on that and then go from there.

My grandfather was an architect back in the '70s and started our company in '79 and then his son took over, which is my uncle and now his son and I are going to take over next year.

D. Conclusion

Consistent with quantitative evidence reported in this study, anecdotal interview information suggests that minorities and women continue to suffer discriminatory barriers to full and fair access to the City of Arlington and private sector contracts and subcontracts. While not definitive proof that the City should apply race- and gender-conscious measures to reduce these impediments, M/WBEs' experiences are the type of evidence that, especially when considered alongside the study's statistical evidence, the courts have found to be probative of whether the City may use narrowly tailored M/WBE contract goals to address discriminatory barriers. Further, general contractors' suggestions should be considered in revamping the M/WBE policy to ensure it is as effective as possible.

VI. RECOMMENDATIONS FOR A REVISED MINORITY- AND WOMAN-OWNED BUSINESS ENTERPRISE PROGRAM FOR THE CITY OF ARLINGTON

The quantitative and qualitative data presented in this study provide a thorough examination of whether minority- and woman-owned business enterprises (“M/WBEs”) operating in the City of Arlington’s geographic and procurement markets have full and fair opportunities to compete for its prime contracts and associated subcontracts. As required by strict constitutional scrutiny, we analyzed evidence of such firms’ utilization by the City as compared to their availability in its market area, as well as business owners’ experiences in obtaining City work. We further analyzed M/WBEs’ opportunities in the overall Metroplex economy. These statistical and anecdotal data provide the evidence necessary to determine whether there is a strong basis in evidence that M/WBEs suffer discrimination in access to City contracts on the basis of race or gender, and if so, what narrowly tailored remedies are appropriate.

The study results support the City’s compelling interest in implementing a race- and gender-conscious contracting program. The record— both quantitative and qualitative— establishes that M/WBEs in the City’s market area continue to experience significant disparities in their access to City contracts and private sector opportunities and to the resources necessary for business success. Results provide a strong basis for the use of narrowly tailored remedial race- and gender-based measures to ensure equal opportunities for all firms to do business with Arlington.

The City has initiated some efforts to level the playing field. It has a formal Local and MWBE Policy that sets an overall, aspirational goal of 25 percent M/WBE participation in City contracts. The City also provides information on how to conduct business with the City and engages in outreach efforts. However, much more could be done. In our judgment, the results of this report provide the constitutionally required information to sustain a new and broad approach to contracting equity and inclusion. These findings support the inference that discrimination remains a barrier to full and fair opportunities for all firms, and in the absence of contract goals, M/WBEs experience significant disparities on City funded jobs. Without the use of contract goals to level

the playing field, the City would likely function as a “passive participant” in the “market failure” of discrimination. We therefore recommend the implementation of a program that contains the necessary elements for greater success in reducing barriers and that employs national best practices to increase inclusion in government contracting.

As a general matter, the City should model its program on the elements of the Disadvantaged Business Enterprise (“DBE”) Program for federally-assisted transportation contracts.¹⁷⁸ Courts have pointed to a local agency’s program’s similarities to Part 26 as evidence that the local government’s program is constitutionally narrowly tailored and employs best practices.

Based on this case law and national best practices for M/WBE programs, we recommend the following elements of a narrowly tailored M/WBE program:

A. Implement Race- and Gender-Neutral Measures

The courts require that governments use race- and gender-neutral approaches to the maximum feasible extent to address identified discrimination. This is a critical element of narrowly tailoring the program, so that the burden on non-M/WBEs is no more than necessary to achieve the City’s remedial purposes. Increased participation by M/WBEs through race-neutral measures will also reduce the need to set M/WBE contract goals and assist firms to obtain prime contracts with the City.

The following enhancements of the City’s current efforts, based on the business owner interviews, the input from senior City management, and national best standards for M/WBE programs, will help to meet these standards.

1. Implement an Electronic Contracting Data Collection, Monitoring and Notification System

A critical element of this study and a major challenge was data collection of full and complete prime contract and associated subcontractor records. As is very common, the City did not have the information needed for the inclusion of subcontractor payments in the analysis. There was no centralized database to track contract data, and the City did not track all the subcontractor data. Much of the required information had to be created manually. Further, the City could not provide verified data on what it had paid to prime contractors. This required the City to devise a system for researching and eventually providing this information to CHA.

178. 49 C.F.R. Part 26.

These problems led to major delays in conducting the study. In addition to hindering research, the lack of a system will also make it very difficult to monitor, enforce and review any new initiatives. A good system is the most critical first step that Arlington should take.

The City should immediately ensure that it is implementing as part of its existing electronic data collection system the following functionality:

- Full contact information for all firms, including email addresses, NAICS codes, race and gender ownership, and M/WBE certification status.
- Contract/project-specific goal setting, using the data from this study.
- Utilization plan capture for prime contractor submission of subcontractor utilization plans, including real-time verification of M/WBE certification status and NAICS codes, and proposed utilization/goal validation.
- Contract compliance for certified and non-certified prime contract and subcontract payments for all formally procured contracts for all tiers of all subcontractors, both M/WBEs and non-M/WBEs; verification of prompt payments to subcontractors; and information sharing between the City, prime vendors and subcontractors about the status of pay applications.
- Program report generation that provides data on utilization by industries, race, gender, dollar amount, procurement method, etc.
- An integrated email notification and reminder engine to inform contractors of required actions, including reporting mandates and dates.
- Outreach tools for eBlasts and related communications, and event management for tracking registration and attendance.
- Access by authorized City staff, prime contractors and subcontractors to perform all necessary activities.

2. Create an Office of Business Diversity

The City should create an Office of Business Diversity¹⁷⁹ (“Office”) to oversee all efforts towards contracting diversity and inclusion. While the City’s Coordinator does yeoman’s work to implement the Policy, a program will require sufficient resources to be effective. This includes staff and management tools to effectively implement the new program. In general, we suggest that the Office will require at least four full time employees to successfully implement a new Program. The new Office should report directly to the City Manager and have

179. This function can be titled in several ways (Minority and Woman Business Resources, Business Opportunities, Contracting Affirmative Action, etc.).

the same level of authority as other departments. This independence will signal the importance of this function and provide it with the bureaucratic stature necessary to move new initiatives forward.

It is critical that all aspects of the M/WBE program be managed and controlled by the Office. All program functions (*e.g.*, contract goal setting, pre-award compliance evaluation including of bidders' good faith efforts to meet contract goals, contract performance monitoring, etc.) should be overseen by the Office. This will ensure that the City is following the requirements of the M/WBE program.

Several departments have the ability to issue contracts. Given the decentralized nature of Arlington's procurement process, with user departments able to procure contracts outside of Purchasing, the new Office will need to work closely with user departments. A more centralized system, overall, would make the program's operations more transparent, support consistent messaging and generate positive outcomes by reducing the number of office and individuals with which small firms must interact.

The supplier diversity Office is a facilitation function, not a direct user department. Therefore, its mission must be integrated into all City departments. To succeed, the program must be viewed as the responsibility of everyone at the City, not just the Office.

3. Increase Vendor Communication and Outreach to M/WBEs and Small Firms

The City has conducted outreach events such as vendor fairs and "meet and greet" events to introduce firms to the City and small firms to larger firms with whom they might partner or subcontract. In addition, the Purchasing Division has already adopted fully electronic bidding. While these efforts have been important, new program initiatives will require increased communication with the contracting community. These events should include meetings targeted towards specific industries or communities, *e.g.*, engineering projects.

Pre-bid or pre-proposal conferences should be conducted, unless the project is so routine or simple that there are not likely to be questions or issues raised by potential vendors. To assist subcontractors to network with potential prime vendors, to be considered a responsive bidder all primes should be required to submit their contact information to the City for public posting at least two weeks prior to the bid date so that smaller firms know how to make contacts to seek work.

Arlington currently requires all firms, both general contractors and subcontractors, to become prequalified to perform on City public improvements, defined

as paving, drainage or water and sanitary sewer contracts. If the City chooses to continue the prequalification requirement, special outreach and training sessions could be provided to explain the criteria and process to small firms.

Further, as is the case with many governments, the study revealed that M/WBEs are receiving few opportunities in several industry codes. We suggest that special outreach for larger projects be conducted to firms in those sectors so that they are aware of opportunities and can make connections with other vendors as subcontractors or joint venture partners. Activities could include targeted emails about future contracts, matchmaking events focusing on those industries, and identification of firms that are not currently certified, but might be eligible for inclusion, to encourage applications.

Some potential vendors requested training in how to do business with the City. In addition to written materials now on the website, the City could hold in virtual sessions and create training videos that provide information on all aspects of City contracting.

4. Focus on Reducing Barriers to M/WBE Prime Contract Awards

Interviewees reported that their firms would like to perform as prime vendors on City contracts. Several steps could be implemented:

- Develop contract specifications with an eye towards unbundling projects into less complex scopes and lower dollar values. Not only will this permit smaller firms to perform, it will also reduce the barriers of surety bonding (for construction projects) and financing the jobs (for all industries). Examples could include maintenance and landscaping contracts; professional services contracts such as information technology consulting and hardware; and commodities purchases.
- Review experience requirements with the goal of reducing them to the lowest level necessary to ensure the bidder has adequate experience, perhaps by recognizing similar, though not identical, types of work including work performed for other governments and private sector clients. Ensure that incumbents are not unduly advantaged by the terms of specifications. Consider eliminating prequalification (especially for subcontractors, which is unusual); many agencies do not prequalify, finding that the ability to procure the surety bond is sufficient to move the evaluation of a firm's qualifications from the pre-award to the post-submission phase. Removing this agency-imposed barrier should make it easier for small firms to respond to city solicitations.
- Review surety bonding and insurance requirements so they are no greater than necessary to protect the City's interests. These possible barriers to contracting by small firms have been mentioned by the courts

as areas to be considered. Steps might include reducing or eliminating insurance requirements on smaller contracts and removing the cost of the surety bonds from the calculation of the apparent lowest bidder on appropriate solicitations.

- Increase standardization of contracting language, requirements and processes across City departments. Differing bid packets, times and days for submission, contact information, etc., can burden small firms with having to learn a multiplicity of approaches. Developing uniform templates should also reduce the burden on City staff.
- Implement an electronic bidding system. Paper requirements burden all firms as well as the City. The novel coronavirus pandemic may make this essential.

5. Consider Partnering with Other Agencies and Local Organizations to Provide Bonding, Financing and Technical Assistance Programs

Both M/WBEs and non-M/WBEs championed services to assist M/WBEs to increase their skills and capabilities. Bonding and financing programs can assist small firms by providing loans and issuing surety bonds to certified contractors, with low interest rates. The programs may also provide general banking services on favorable terms to applicant firms. In addition, technical assistance with critical business skills such as estimating, accounting, safety, marketing, legal compliance, etc., could be made available in conjunction with the existing efforts of Metroplex organizations such as chambers of commerce, professional associations, community-based organizations, etc. Partnering with these types of programs will allow the City to leverage their expertise, knowledge and experience in assisting these types of businesses. Several interview participants suggested exploring a relationship with local educational institutions to provide training.

B. Adopt a Minority- and Woman-Owned Business Enterprise Program

The study's results support the determination that the City has a strong basis in evidence to implement a race- and gender-conscious M/WBE Program. The record—both quantitative and qualitative—establishes that M/WBEs in the City's market area experience significant disparities in their access to contracts without M/WBE goals, private sector opportunities and to resources necessary for business success. The disparity results are stark:

Table 6-1: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE
Disparity Ratio	3.1%^	55.3%^	92.4%	22.7%^	180.7%*	74.1% ^{***}	111.0% ^{***}

Source: CHA analysis of the City's data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level.

** Indicates statistical significance at the 0.01 level.

* Indicates statistical significance at the 0.05 level.

^ Indicates substantive significance.¹⁸⁰

As fully discussed in Chapter III, the results for Asian-owned firms and White woman-owned firms stem from a few contracts awarded to a handful of firms. We do not take from this that these groups enjoy full and fair opportunities for City work. To the contrary, that so few businesses have managed to break through the ceiling demonstrates how difficult it is to achieve parity in an overall marketplace that remains discriminatory.

The results of the economy-wide analyses are equally compelling. Data from the Census Bureau's *Survey of Business Owners* indicate very 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), or the payroll of employer firms. Similarly, data from the Census Bureau's *American Community Survey* ("ACS") indicate that Blacks, Hispanics and White women were underutilized relative to White men. Controlling for other factors relevant to business outcomes, wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men. The results of numerous small business commercial credit surveys reveal that M/WBEs, especially Black-owned firms, suffer significant barriers to business financing.

Our interviews with 34 individuals about their experiences in the City's market area further revealed the existence of persistent barriers on the basis of race and/or gender. Many M/WBEs reported that they still encounter barriers based on race and/or gender and that without affirmative intervention to increase opportunities through contract goals, they will continue to be denied and full opportunities to compete.

This overwhelming quantitative and anecdotal evidence presents the "strong basis in evidence" that the courts require to support a race- and gender-conscious relief. Without targeted efforts to reduce discriminatory barriers, minorities and

180. Appendix C discusses the meaning and role of statistical significance.

women will likely continue to face diminished opportunities because of the race or gender of the firm's owner(s). We therefore recommend the adoption of a new Program with the following major elements.

1. Adopt an Annual Goal for a New M/WBE Program

The City should set an annual, overall target for M/WBE utilization in City contracts (prime contracts and subcontracts combined). The weighted availability estimates in Chapter III should be the basis for consideration of overall, annual spending targets for City funds. We found the weighted availability of M/WBEs to be 29.8 percent.¹⁸¹ This can be the City's goal (or a figure rounded to a whole number) for its overall spending with certified firms across all industry categories.

2. Set Narrowly Tailored Contract Goals

In addition to setting an overall, annual target, the City should use the study's detailed unweighted availability estimates as the starting point for contract specific goals. As discussed in Chapter II of the study, the City's constitutional responsibility is to ensure that goals are narrowly tailored to the specifics of the project. A good electronic contracting data collection, monitoring and notification system should include a goal setting module that the City should use as its data source. This methodology involves four steps:

- Weight the estimated dollar value of the scopes of the contract by 6-digit NAICS codes, as determined during the process of creating the solicitation. To increase understanding and compliance, these industry codes could be listed in the solicitation as a guide to how the goal was determined and where the City expects bidders to seek M/WBE participation. Good faith efforts could be defined as, among several other elements, an adequate solicitation of firms certified in these codes.
- Determine the unweighted availability of M/WBEs in those scopes as estimated in the study.
- Calculate a weighted goal based upon the scopes and the availability of firms.
- Adjust the resulting percentage based on current market conditions.

Meeting the contract goal or making good faith efforts should be treated as a measure of "responsiveness" rather than "responsibility." A responsive bid meets all requirements of the bidding documents and solicitation. This is determined early in the bid evaluation process. If a bid is deemed non-respon-

181. See Table 3-8.

sive, it is no longer eligible for consideration. Generally, a responsible bidder is one who has the requisite experience, personnel, equipment, technical ability and finances to perform all contract requirements. In the context of M/WBE program administration, this means that the City will evaluate the bidder's compliance in the first stage; if the bid either does not meet the contract goal or fails to establish the bidder's good faith efforts to do so, it will be non-responsive and eliminated from consideration. There is no "cure" period after submittal.

We urge the City to bid some contracts without goals that it determines have significant opportunities for M/WBE participation. These "control contracts" can illuminate whether certified firms are used or even solicited in the absence of goals. The development of some "unremediated markets" data, as held by the courts, will be probative of whether the M/WBE program remains needed to level the playing field for minorities and women.

3. Determine Program Eligibility

The study found that, as a group and for each racial and ethnic group and White women, M/WBEs continue to suffer disparities in their access to City contracts. We therefore recommend that all racial and ethnic groups and White women be eligible for participation in the program on a presumptive basis. Program eligibility should be limited to firms that have a business presence in the City's market area,¹⁸² or that can demonstrate their attempts to do business within the City's market area.

The City's new program should review the certifications it currently accepts to ensure that the standards of the certifying agencies comport with the judicial requirement that the applicant firm must be small, and the owner of the applicant must be economically disadvantaged. It will be the City's constitutional responsibility to ensure that the certifications it accepts are from narrowly tailored programs with demonstrated integrity.

4. Adopt Compliance and Monitoring Policies and Procedures

In addition to ensuring that the new M/WBE program sets narrowly tailored goals and eligibility requirements, it is essential that the City adopt contract award and performance standards for program compliance and monitoring that are likewise narrowly tailored and embody best practices. In general, compliance and monitoring should include the following elements:

182. The market area consists of Tarrant, Dallas and Johnson Counties, Texas. See Table 3-2.

- Clearly delineated policies and forms by which a bidder or proposer can establish that it has either met the contract goal(s) or made good faith efforts to do so.
- Rules for how participation by certified firms will be counted towards the goal(s). A firm must perform a “commercially useful function” in order to be counted for goal attainment. How various types of goods or services will be credited towards meeting goals must be clearly spelled out (for example, whether full credit will be given for purchases from certified regular dealers or suppliers). Certified prime vendors should be permitted to count their self-performance towards meeting the contract goal.
- Contract monitoring policies, procedures and data collection processes. This must include tracking the utilization of certified and non-certified subcontractors at all tiers of performance and monitoring prompt payment obligations of prime contractors to subcontractors. City staff must perform site visits to meet these requirements.
- Criteria and processes for how non-performing, certified firms can be substituted during performance.
- Contract closeout procedures and standards for sanctions for firms that fail to meet their contractual requirements under the program.
- A process to appeal adverse determinations under the program that meets due process standards.

5. Provide Training for all City Staff with Contracting Responsibilities or Vendor Interface

These significant changes will require a City-wide roll out of new initiatives, as well as training of all Arlington personnel with contracting and vendor management responsibilities. In addition to providing technical information on compliance, it is also an opportunity to reaffirm the City’s commitment to supplier diversity and encourage all departments to buy into these values and objectives.

6. Provide Training for Vendors on the New Program

It will be important for the City to provide some formal training on these proposed new program elements. This could consist of in-person sessions, as well as web-based seminars that would present answers to questions such as who is eligible; how to become certified; how to meet goals or establish good faith efforts to do so; how to use the electronic system; prompt payment obligations; subcontractor substitution; and contract close out. Information should

further cover resources to assist small businesses, such as loan program, accessing local Procurement Technical Assistance Centers, and other support.

C. Develop Performance Standards and Review Timetables

To meet the requirements of strict constitutional scrutiny and ensure that best practices in program administration continue to be applied, the City should conduct a full and thorough review of the evidentiary basis for a new M/WBE program approximately every five to seven years.

Arlington should adopt a sunset date, meaning when it will end unless reauthorized, for the M/WBE program. This is a constitutional requirement to meet the narrow tailoring test that race- and gender-conscious measures be used only when necessary. A new disparity study or other applicable research should be commissioned in time to meet the sunset date.

The City should develop quantitative performance measures for overall success of its race- and gender-neutral measures and any M/WBE program to evaluate the effectiveness of various approaches in reducing the systemic barriers identified by the study. In addition to meeting goals, possible benchmarks might be:

- Progress towards meeting the overall, annual M/WBE goal.
- The number of bids or proposals, industry and the dollar amount of the awards and the goal shortfall, where the bidder was unable to meet the goals and submitted good faith efforts to do so.
- The number, dollar amount and the industry code of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal.
- The number, industry and dollar amount of M/WBE substitutions during contract performance.
- Increased bidding by certified firms as prime vendors.
- Increased prime contract awards to certified firms.
- Increased “capacity” of certified firms, as measured by bonding limits, size of jobs, profitability, complexity of work, etc.
- Increased variety in the industries in which M/WBEs are awarded prime contracts and subcontracts.

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:

$$DV = f(D, I, O),$$

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; β_1 , β_2 and β_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 Arlington, the analysis was limited to data from the Dallas-Fort Worth-Arlington Metropolitan Area. The coefficient for the new variable showed the impact of being a member of that race or gender in the county metropolitan area.

APPENDIX B:

FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

Probit regression is a special type of regression analysis. While there are many differences between the underlying estimation techniques used in the probit regression and the standard regression analysis, the main differences from the layperson's point of view lie in the nature of the dependent variable and the interpretation of the coefficients associated with the independent variables.

The basic model looks the same:

$$DV = f(D, I, O),$$

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; β_1 , β_2 , and β_3 are coefficients, and μ is the random error term.

In the standard regression model, the dependent variable is continuous and can take on many values. In the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. For instance, in the standard regression analysis, we may be exploring the impact of a change in some independent variable on wages. In this case, the value of one's wage might be any non-negative number. In contrast, in the probit regression analysis, the exploration might be the impact of a change in some independent variable on the probability that some event occurs. For instance, the question might be how an individual's gender impacts the probability of that person forming a business. In this case, the dependent variable has two values: zero, if a business is not formed; one, if a business is formed.

The second significant difference—the interpretation of the independent variables' coefficients—is fairly straight-forward in the standard regression model: the unit change in the independent variable impacts the dependent variable

by the amount of the coefficient.¹⁸³ However, in the probit model, the initial coefficients cannot be interpreted this way. One additional step, which can be computed easily by most statistical packages, 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, using our previous example of the impact on 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 final transformation of the coefficient of WOMAN was -0.12, we would interpret this to mean that women have a 12% lower probability of forming a business compared to men.

183. 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%; 99% and 95%, 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 whether 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 Arlington 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, this analysis determines that non-Whites receive wages that are 35% 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 is that estimation, that is, what is the probability 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% 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%) is between 0 and minus that confidence interval.¹⁸⁴ 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% certain that the number in question (in this example, -35%) 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% certain that the number in question lies outside of the confidence interval. When a number is statistically significant at the 0.05 level, this indicates that we can be 95.0% certain that the number in question lies outside of the confidence interval.

184. Because 0 can only be greater than -35%, 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:

QUALITATIVE EVIDENCE FROM TEXAS DISPARITY STUDIES

In addition to the anecdotal data collected for the City of Arlington and provided in Chapter V of this Report, CH Advisors has conducted several studies¹⁸⁵ 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”), 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 M/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)

185. Some studies were conducted under the auspices of Colette Holt & Associates, a related firm to Advisors.

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-M/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)

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 pre-bids. 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[nformation] 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)

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 M/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)

[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)

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 mentor-protégé 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)

I'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)

