NERA
ECONOMIC CONSULTING

Business Disparities in the San Antonio, Texas Market Area

Prepared for the City of San Antonio

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About the Project Team

NERA Economic Consulting is a global firm of experts dedicated to applying economic, finance and quantitative principles to complex business and legal challenges. For half a century, NERA's economists have been creating strategies, studies, reports, expert testimony and policy recommendations for government authorities and the world's leading law firms and corporations. We bring academic rigor, objectivity and real world industry experience to bear on issues arising from competition, regulation, public policy, strategy, finance and litigation.

NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from over 20 offices across North America, Europe and Asia Pacific.

NERA's employment and labor experts advise clients on a wide range of issues both inside and outside the courtroom. We have provided expert testimony on statistical issues both at the class certification phase (on issues of commonality and typicality) and at the liability phase (for class or pattern-and-practice cases). Our experts have extensive experience examining issues of statistical liability in discrimination and other wrongful termination claims. We also provide detailed statistical analyses of workforce composition to identify potential disparities in hiring, layoffs, promotions, pay, and performance assessments, and have conducted studies on labor union issues and on affirmative action programs for historically disadvantaged business enterprises.

NERA Senior Vice President Dr. Jon Wainwright led the NERA project team for this Study. Dr. Wainwright heads NERA's disparity study practice and is a nationally recognized expert on business discrimination and affirmative action. He has authored books, papers, and numerous research studies on the subject, and has been repeatedly qualified to testify on these and other issues as an expert in state and federal courts. At NERA, Dr. Wainwright directs and conducts economic and statistical studies of discrimination for attorneys, corporations, governments and non-profit organizations. He also directs and conducts research and provides clients with advice on adverse impact and economic damage matters arising from their hiring, performance assessment, compensation, promotion, termination, or contracting activities.

About the Project Team

Galloway Research Services (GRS) is an SCTRCA-certified WBE/SBE/DBE led by President Elise Galloway and Vice President J. Patrick Galloway. (GRS is South Texas oldest and largest full service marketing and opinion research firm. The company's headquarters in Northwest San Antonio houses a state-of-the-art 83-station telephone research call center. GRS has provided opinion and marketing research services to numerous business and government institutions over its 40-plus year history. Currently, Galloway Research Services conducts over 400 research projects of various types annually. The company provides complete research services from consulting and survey design to data collection, tabulation, analysis and reporting. On this project GRS had responsibility for executing the race and gender misclassification CATI telephone surveys and the mail survey non-response CATI surveys.

Reliable Staffing is an SCTRCA-certified MBE/SBE/ESBE led by Mr. George Maciel. Reliable Staffing maintains a large staff of full-time recruiters, organized into specialized divisions that allow its clients to fill positions in a wide variety of areas, including: Accounting, Clerical, Data Entry, Industrial, Information Technology, Marketing, Shipping, Stocking, Technical and Skilled Trades. On this project, Reliable Staffing had responsibility for providing temporary personnel to supplement NERA staff for the various data collection and processing tasks in the Disparity Study.

Attorney Don O'Bannon, Esq. Don O'Bannon is principal in the Law Office of Don T. O'Bannon in Dallas, Texas. He is the former Vice President of Business Diversity and Development for DFW International Airport and past chairman of the Airport Minority Advisory Council. Mr. O'Bannon is a past recipient of the M/WBE Advocate of the Year award from the Fort Worth Metropolitan Chamber of Commerce, the Business Advocate of the Year award from the Dallas-Fort Worth Hispanic Contractors' Association, and the Chairman's Award from the Dallas-Fort Worth Black Contractors' Association. On this project, Mr. O'Bannon provided a review of case law, conducted interviews with public sector personnel and with local business owners and co-drafted selected study recommendations.

Combat Veteran Voicewriters, LLC is a Veterans Administration verified Service-Disabled-Veteran Owned, and SBA Economically-Disadvantaged-Woman Owned Small Business based in Mesa, Arizona and led by founder Jennifer MacGregor. CVV provides court reporting and transcription of meetings, hearings, conference sessions, interviews, interrogations, depositions and court proceedings for a variety of government agencies, commercial businesses, small businesses and non-profit organizations. On this project, CVV provided transcription services for all of the business owner and public sector personnel interviews.

J&D Data Services is a small business enterprise owned by Mr. Joe Deegan and based in Plano, Texas. After a long career with ScanTron, Mr. Deegan started his own business to offer a solid and proven alternative to the time consuming and expensive job of key data entry long associated with mail surveys. The firm helps its clients conserve their surveying resources by designing and delivering survey

instruments that can be electronically and automatically scanned upon return and sent directly to electronic format. J&D Data Services has conducted numerous surveys of M/WBEs and non-M/WBEs on behalf of the NERA team. On this assignment, they provided printing, postage, mail-out and mail-back service for the contract and subcontract data collection, the mail survey and the business owner interviews.

Report Qualifications/Assumptions and Limiting Conditions

This report is for the exclusive use of the City of San Antonio ("the City"). There are no third-party beneficiaries with respect to this report, and NERA Economic Consulting does not accept any liability to any third party.

Information furnished by others, upon which all or portions of this report is based, is believed to be reliable but has not been independently verified, unless otherwise expressly indicated. Public information and industry and statistical data, including contracting, subcontracting and procurement data, are from sources we deem to be reliable; however, we make no representation as to the accuracy or completeness of such information.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events or conditions that occur subsequent to the date hereof.

All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client.

In portions of this report, NERA has commented on legal issues. NERA's comments are based on its understanding of relevant law and industry best practice, as informed by legal counsel retained by NERA. However, NERA's comments are not, and should not be construed as, legal advice to the City. NERA recommends that the City seek and obtain advice from its own legal counsel in connection with its affirmative action programs and with this report.

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Executive Summary

A. Introduction

The City of San Antonio commissioned this Study to evaluate whether minority-owned and women-owned business enterprises ("M/WBEs") in the City's market area have full and fair opportunities to compete for its prime contracts, purchases and associated subcontracts.

To ensure compliance with constitutional mandates, its own Small Business Economic Development Advocacy ("SBEDA") Ordinance, and M/WBE program best practices, the City of San Antonio commissioned NERA Economic Consulting to examine the past and current status of M/WBEs in its geographic and product markets for contracting and procurement. The results of the Study provide the evidentiary record necessary for the City's consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which previous efforts have assisted M/WBEs to compete on a fair basis in the City's contracting and procurement activity.

This Study finds statistical evidence consistent with the presence of business discrimination against M/WBEs in the private sector of the City of San Antonio market area. These findings are presented in Chapters IV and V. Statistical analyses of the City's own contracting and purchasing, which also document evidence consistent with business discrimination, are contained in Chapters II, III and VI. As a check on our statistical findings, documented in Chapter VII, we surveyed the contracting experiences of M/WBEs and non-M/WBEs in the market area and also conducted a series of in-depth personal interviews with business enterprises throughout the market area, both M/WBE and non-M/WBE.

B. Legal Standards for Government Affirmative Action Contracting Programs

To be legally defensible, a race-based program must meet the judicial test of constitutional strict scrutiny. Strict scrutiny is the highest level of judicial review and consists of two elements:

- The government must establish its "compelling interest"[1] in remedying race discrimination by showing "a strong basis in evidence"[2] of the persistence of discrimination. Such evidence may consist of demonstrating that the entity is a 'passive participant' in a system of racial exclusion…."[3]

- Any remedies adopted must be narrowly tailored to that discrimination; that is, "the means chosen to accomplish the government's asserted purpose are specifically and narrowly framed to accomplish that purpose."[4]

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[1] *Croson*, 488 U.S. at 492.

[2] *Id.* at 500 (citing *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277 (1986)).

[3] *Id.* at 492.

[4] *Sherbrooke*, 345 F.3d at 971 (citing *Grutter v. Bollinger*, 539 U.S. 306, 333 (2003)).

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

- Statistical evidence of "identified discrimination in [the relevant] industry,"[5] typically established by showing the underutilization of minority-owned firms relative to their availability in the jurisdiction's market area known as disparity indexes or disparity ratios.[6]

- Anecdotal evidence of race-based barriers to the full and fair participation of minority-owned firms in the market area and in seeking contract opportunities with the agency.[7]

The narrow tailoring prong has been met through the assessment of several factors:

- Consideration of alternative, race-neutral means to increase M/WBE participation;[8]

- The flexibility of the program requirements, including the availability of waiver provisions;[9]

- The duration of the proposed relief;[10]

- The relationship of numerical participation goals to the availability of M/WBEs in the relevant market;[11]

- The impact of the relief on third parties;[12] and

- The overinclusiveness or underinclusiveness of the racial classifications.[13]

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5 *Croson*, 488 U.S. at 505.

6 *See* J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, Transportation Research Board of the National Academies, NCHRP Report, Issue No. 644, 2010, pp. 5-6.

7 *Concrete Works of Colorado, Inc. v. City and County of Denver,* 36 F.3d 1513, 1520 (10th Cir. 1994) ("*Concrete Works II*") ("Personal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a municipality's institutional practices that exacerbate discriminatory market conditions are often particularly probative. Therefore, the government may include anecdotal evidence in its evidentiary mosaic of past or present discrimination."). *See also Adarand VII*, 228 F.3d at 1166 ("Both statistical and anecdotal evidence are appropriate in the strict scrutiny calculus, although anecdotal evidence by itself is not.").

8 *Croson*, 488 U.S. at 507, citing *United States v. Paradise*, 480 U.S. 149, 171 (1987). *See also Adarand Constructors, Inc. v. Pena,* 515 U.S. 200, 237-238 (1995) ("Adarand III").

9 *Paradise*, 480 U.S. at 171; *Adarand VII,* 228 F.3d at 1177.

10 *Croson*, 488 U.S. at 498, 509. *See also Paradise*, 480 U.S. at 171.

11 *Paradise*, 480 U.S. at 171.

12 *Id*.

13 *Croson*, 488 U.S. at 506.

In *Adarand Constructors, Inc. v. Peña,*[14] the Court extended the analysis of strict scrutiny to race-based federal enactments such as the federal ("DBE") Program. Just as in the state and local government context, the national government must have a compelling interest for the use of race, and the remedies adopted must be narrowly tailored to meet that interest.

Appendix B provides an overview of constitutional standards and case law and outlines the legal and program development issues the City of San Antonio should consider in evaluating its M/WBE Program, with emphasis on critical issues and evidentiary concerns.

C. Defining the Relevant Markets

Chapter II describes how the relevant geographic and product markets were defined for this Study. These definitions were derived empirically, based on the Master Contract/Subcontract Database assembled for the Study. The relevant geographic and product markets were then used to focus and frame the quantitative and qualitative analyses in the remainder of the Study.

The Master Contract/Subcontract Database contains information on 2,265 prime contracts or purchase orders and 3,831 associated subcontracts active during calendar years 2011-2013. Additionally, the database includes records concerning prime contracts and subcontracts for the City's nine active job order contracts and also for its 2007 and 2012 bond-financed design contracts.[15] These contracts and purchases had a total award value of $2.61 billion and a total paid value of $1.47 billion (see Table 2.1).[16] Contracts and subcontracts in the database were catalogued according to calendar year and whether they were for Construction; Architecture & Engineering; Professional Services; Other Services; or Goods & Supplies. The firms performing these contracts and subcontracts were catalogued according to geographic location, primary industry, and race and gender.

The Master Contract/Subcontract Database was analyzed to determine the geographic radius around the City of San Antonio that accounts for approximately 75 percent of aggregate contract and subcontract spending. The City's relevant geographic market area was determined to include the San Antonio-New Braunfels, TX Metropolitan Statistical Area ("MSA"). The San Antonio-New Braunfels, TX MSA includes the Texas counties of Bexar, Comal, Guadalupe, Atascosa, Bandera, Kendall, Medina, and Wilson (see Tables 2.4 and 2.5).

The Master Contract/Subcontract Database was also analyzed to determine those detailed industry categories that account for over 99 percent of contract and subcontract spending by the City of San Antonio. Overall, we determined that the City of San Antonio's relevant product market includes firms in 191 different North American Industrial Classification System ("NAICS") Industry Groups and 391 different NAICS Industries (see Tables 2.6 through 2.10).

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[14] 515 U.S. 200 (1995) ("*Adarand III*").

[15] Data for the 2007 bond-financed design contracts spanned a time period from 2008-2011.

[16] Payments on contracts that were not substantially complete at the time of the Study data collection were excluded from the paid dollar totals.

D. M/WBE Availability in the City of San Antonio's Market Area

Chapter III estimates the percentage of establishments in the City of San Antonio's relevant market area that are owned by minorities or women. For each industry category, M/WBE availability was defined as the number of M/WBEs divided by the total number of business establishments in the relevant contracting market area, weighted by the dollars attributable to each detailed industry. Determining the total number of establishments in the relevant market is more straightforward than determining the number of M/WBE establishments in those markets. The latter task has three main parts: (1) identifying all listed M/WBEs in the relevant market; (2) verifying the ownership status of listed M/WBEs; and (3) estimating the number of unlisted M/WBEs in the relevant market.

Table A1 below provides an executive level summary of the current M/WBE availability estimates derived in the Study. Availability estimates for more detailed industries within the major procurement categories appear in Tables 3.13 through 3.18.

Table A1. Overall Estimated M/WBE Availability Percentages in the City of San Antonio Market Area

	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority	Non-minority Female	M/WBE	Non-M/WBE
OVERALL								
AWARD DOLLARS	2.77	25.22	2.01	1.14	31.15	10.03	41.17	58.83
PAID DOLLARS	2.78	26.67	1.61	1.10	32.15	10.47	42.62	57.38
CONSTRUCTION								
AWARD DOLLARS	1.91	29.76	1.74	0.97	34.38	10.06	44.44	55.56
PAID DOLLARS	1.91	35.60	0.72	0.94	39.17	11.36	50.52	49.48
ARCHITECTURE & ENGINEERING								
AWARD DOLLARS	1.17	15.81	3.05	2.54	22.57	7.98	30.55	69.45
PAID DOLLARS	1.19	15.52	2.46	2.13	21.30	7.47	28.77	71.23
PROFESSIONAL SERVICES								
AWARD DOLLARS	6.34	22.48	0.72	0.19	29.74	9.97	39.70	60.30
PAID DOLLARS	5.63	27.04	0.60	0.19	33.47	11.15	44.62	55.38
OTHER SERVICES								
AWARD DOLLARS	4.00	32.30	2.11	1.12	39.54	15.26	54.80	45.20
PAID DOLLARS	4.45	30.10	2.16	0.92	37.62	15.88	53.51	46.49
GOODS & SUPPLIES								
AWARD DOLLARS	2.01	23.31	4.01	1.35	30.69	11.42	42.10	57.90
PAID DOLLARS	2.14	22.71	4.01	1.32	30.18	10.75	40.93	59.07

Source: Table 3.13.

Notes: (1) "Award" indicates that the availability measures are weighted according to dollars awarded; (2) "Paid" indicates that the availability measures are weighted according to dollars paid; (3) For this Study, "Black" or "African American" refers to an individual having origins in any of the Black racial groups of Africa; "Hispanic" refers to an individual of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race; "Asian" or "Asian/Pacific Islander" refers to an individual having origins in the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands; "Native American" refers to an individual having origins in any of the original peoples of North America or of Hawai'i. Businesses owned by members of these groups are collectively referred to as M/WBEs.

E. Statistical Disparities in Business Formation and Business Owner Earnings

1. Census Bureau's American Community Survey

Chapter III demonstrates that current M/WBE availability levels in the City of San Antonio's market area, as measured in Chapter II, are substantially lower in most instances than those that we would expect to observe if commercial markets operated in a race- and gender-neutral manner and that these levels are statistically significant.[17] In other words, minorities and women are substantially and significantly less likely to own their own businesses as the result of discrimination than would be expected based upon their observable characteristics, including age, education, geographic location and industry. We find that these groups also suffer substantial and significant earnings disadvantages relative to comparable nonminority males, whether they work as employees or entrepreneurs.

For example, we found that annual average wages for African Americans in 2009–2013 in the construction sector were 37.0 percent lower in the City of San Antonio market area than for nonminority males who were otherwise similar in terms of geographic location, industry, age and education (see Table 4.2). This difference is large and statistically significant. Large, adverse, and statistically significant wage disparities were also observed for Hispanics (33.3 percent lower), Asians/Pacific Islanders (13.9 percent lower), Native Americans (34.6 percent lower), persons reporting two or more races (23.4 percent lower) and nonminority women (31.4 percent lower). These disparities are consistent with the presence of market-wide discrimination. Comparable results were observed when the analysis was restricted to the goods and services sector or expanded to the economy as a whole. That is, large, adverse, and statistically significant wage disparities were observed for all minority groups and for nonminority women. All wage and salary disparity analyses were then repeated to test whether observed disparities in the City of San Antonio market area were different enough from elsewhere in the country or the economy to alter any of the basic conclusions regarding wage and salary disparities. They were not. Indeed, for Hispanics in the City of San Antonio market area, wages relative to nonminority males were significantly lower than in the country as a whole.

This analysis demonstrates that minorities and women earn substantially and significantly less than their nonminority male counterparts. Such disparities are consistent with race and gender discrimination in the labor force that, in addition to its direct effect on workers, reduces the future availability of M/WBEs by stifling opportunities for minorities and women to progress through precisely those internal labor markets and occupational hierarchies that are most likely to lead to entrepreneurial opportunities. These disparities reflect more than mere "societal discrimination" because they demonstrate the nexus between discrimination in the job market and reduced entrepreneurial opportunities for minorities and women. Other things equal, these reduced entrepreneurial opportunities in turn lead to lower M/WBE availability levels than would be observed in a race- and gender-neutral market area.

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[17] Typically, for a given disparity statistic to be considered "statistically significant" there must be a substantial probability that the value of that statistic is unlikely to be due to chance alone. *See also fn*. 71.

Next, we analyzed race and gender disparities in business owner earnings. We found, for example, that annual earnings for self-employed African Americans in 2009–2013 in the construction sector were 41.3 percent lower in the City of San Antonio market area than for nonminority males who were otherwise similar in terms of geographic location, industry, age and education (see Table 4.5). This difference is large and statistically significant. Large, adverse, and statistically significant wage disparities were also observed for Hispanics (15.2 percent lower), Asians/Pacific Islanders (19.3 percent lower), Native Americans (32.8 percent lower), persons reporting two or more races (26.1 percent lower) and nonminority women (40.1 percent lower). These disparities are consistent with the presence of market-wide discrimination. Similar results were observed when the analysis was restricted to the goods and services sector or expanded to the economy as a whole. As with the wage and salary disparity analysis, we enhanced our basic statistical model to test whether minority and female business owners in the City of San Antonio market area differed significantly enough from business owners elsewhere in the U.S. economy to alter any of our basic conclusions regarding disparity. They did not.

As was the case for wage and salary earners, minority and female entrepreneurs earned substantially and significantly less from their efforts than similarly situated nonminority male entrepreneurs. These disparities are a symptom of discrimination in commercial markets that directly and adversely affect M/WBEs. Other things equal, if minorities and women cannot earn remuneration from their entrepreneurial efforts comparable to that of nonminority males, growth rates will slow, business failure rates will increase, and business formation rates may decrease. Combined, these phenomena result in lower M/WBE availability levels than would otherwise be observed in a race- and gender-neutral market area.

Next, we analyzed race and gender disparities in business formation (see Tables 4.7 to 4.11). As with earnings, in most cases we observed large, adverse, and statistically significant disparities consistent with the presence of discrimination in these markets in the overall economy, in the construction sector and in the goods and services sector. In the construction sector (Table 4.10), business formation rates for African Americans were 8.6 percentage points lower than for comparable nonminority males. Large, adverse, and statistically significant reductions in business formation were also observed for Hispanics (1.8 percentage points lower), Asians/Pacific Islanders (5.0 percentage points lower), persons reporting two or more races (2.5 percentage points lower) and nonminority women (18.5 percentage points lower).

In the goods and services sector (Table 4.11), business formation rates for African Americans were 5.3 percentage points lower than for comparable nonminority males. Large, adverse, and statistically significant reductions in business formation were also observed for Hispanics (3.4 percentage points lower), Native Americans (3.5 percentage points lower), and nonminority women (1.7 percentage points lower).

In the economy as a whole (Table 4.9), business formation rates for African Americans were 3.9 percentage points lower than for comparable nonminority males. Large, adverse, and statistically significant reductions in business formation were also observed for Hispanics (2.1 percentage points lower), persons reporting two or more races (1.5 percentage points lower) and nonminority women (1.8 percentage points lower).

2. Census Bureau's Survey of Business Owners

As a further check on the statistical findings in this chapter, we examined evidence from the Census Bureau's *Survey of Business Owners and Self-Employed Persons* (SBO) (see Tables 4.13 to 4.18). These data show large, adverse, and statistically significant disparities between M/WBEs' share of overall revenues and their share of overall firms in the U.S. as a whole, and in the State of Texas.[18] The size of the disparities facing minority-owned firms in Texas is very large. For example, although 7.3 percent of all firms in Texas are owned by African Americans, these firms earned less than 1.1 percent of all sales and receipts. Hispanic-owned firms are 21.2 percent of all firms in Texas, yet they earned only 7.2 percent of all sales and receipts. Asian-owned firms are 5.4 percent of all firms in Texas, but earned only 4.7 percent of sales and receipts. Native American-owned firms are 0.90 percent of all firms in Texas, but earned only 0.43 percent of sales and receipts. Women-owned firms were 28.9 percent of all firms in Texas, but these firms earned only 11.3 percent of sales and receipts.

F. Statistical Disparities in Credit/Capital Markets

In Chapter V, we analyzed historical data from the Survey of Small Business Finances ("SSBF"), conducted by the Federal Reserve Board and the U.S. Small Business Administration covering 1993-2003, and more limited data from: (a) nine surveys mirroring the SSBF that NERA conducted throughout the nation between 1999 and 2007, and (b) 2007-2010 data compiled from the Kauffman Firm Survey, to examine whether discrimination exists in the market for small business credit and capital.

Credit market discrimination can have an important effect on the likelihood that M/WBEs will succeed. Moreover, discrimination in the credit market might even prevent such businesses from opening in the first place. This analysis has been held by some courts to be probative of a public entity's compelling interest in remedying discrimination.[19] We provide qualitative and quantitative evidence supporting the view that M/WBE firms, particularly African American-owned firms, suffer discrimination in this market.

The SSBF datasets are constructed for the nation as a whole and for nine Census divisions. The City of San Antonio market area is part of the West South Central division (WSC), that includes the State of Texas and three surrounding states.[20] To render the results as narrowly tailored as possible, we included indicator variables in our statistical analyses to determine whether the results for the WSC were different from those for the nation as a whole. We determined that the national results also apply in general to the WSC.

The main results from the SSBF are as follows:

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[18] In general, with this particular dataset, it is not possible to analyze geographies below the state level.

[19] *See, e.g., Northern Contracting, Inc. v. Illinois Department of Transportation*, No. 00-C-4515, 2005 WL. 2230195 (N.D. Ill. Sept. 8, 2005); *Concrete Works of Colorado v. City and County of Denver,* 321 F.3d 950, *cert. denied*, (10th Cir. 2003).

[20] The WSC includes Texas as well as Arkansas, Louisiana and Oklahoma.

- Minority-owned firms were more likely to report that they did not apply for a loan over the preceding three years because they feared the loan would be denied (see Tables 5.15, 5.22, 5.29).

- When minority-owned firms applied for a loan, their loan requests were substantially more likely to be denied than non-minorities, even after accounting for differences like firm size and credit history (see Tables 5.8, 5.9, 5.18, 5.19, 5.25, 5.26).

- When minority-owned firms did receive a loan they were obligated to pay higher interest rates on the loans than comparable nonminority-owned firms (see Tables 5.13, 5.14, 5.21, 5.27).

- A larger proportion of minority-owned firms than nonminority-owned firms report that credit market conditions are a serious concern (see Tables 5.3, 5.4, 5.5, 5.6, 5.7, 5.17, 5.24).

- A larger share of minority-owned firms than nonminority-owned firms believes that the availability of credit is the most important issue likely to confront them in the upcoming year (see Tables 5.5, 5.6).

- There is no evidence that discrimination in the market for credit is significantly different in the WSC, which includes the City of San Antonio market area, or in the construction and construction-related professional services industries than it is in the nation or the economy as a whole (various tables). The evidence from NERA's own credit surveys in a variety of states and metropolitan areas across the country is entirely consistent with the results from the SSBF.

Results from the 1999-2007 NERA surveys and the 2007-2010 Kauffman Firm Survey data were consistent with these findings from the SSBF. There is no evidence that the level of discrimination in the market for credit has diminished between 1993 and 2003, between 1999-2007, or in more recent years (various tables).

We conclude that there is evidence of discrimination against M/WBEs in the City of San Antonio market area in the small business credit market. This discrimination is particularly acute for African American-owned small businesses where, even after adjusting for differences in assets, liabilities, and creditworthiness, the loan denial rates remain substantially higher than for nonminority male-owned small businesses.

G. Public Sector Utilization vs. Availability in City of San Antonio Contracting and Purchasing Markets

Chapter VI analyzes the extent to which M/WBEs were utilized on contracts active at the City of San Antonio during 2011-2013 (and from 2008-2011 for the 2007 bond-financed design contracts) and compares this utilization rate to the availability of M/WBEs in the relevant market area. Tables B1 and B2 provide an executive summary of the utilization findings for the Study by industry category and M/WBE type. Table B1 shows M/WBE and non-M/WBE utilization

measured by dollars awarded for all contracts and purchases examined during the study period. Table B2 shows comparable M/WBE and non-M/WBE utilization measured by dollars paid.[21]

Table B1. M/WBE Utilization in Contracting at the City of San Antonio–All Contracts (Dollars Awarded)

M/WBE Type	Procurement Category					
	Construction (%)	A&E (%)	Professional Services (%)	Other Services (%)	Goods & Supplies (%)	Overall (%)
African American	0.25	1.64	1.15	1.04	1.76	0.92
Hispanic	15.27	18.99	3.86	14.35	2.04	10.94
Asian/Pacific Islander	0.43	4.81	0.41	0.84	10.84	3.28
Native American	0.17	0.20	0.02	0.00	0.00	0.10
Minority Total	16.12	25.64	5.44	16.23	14.63	15.24
Nonminority female	5.21	10.60	3.13	5.66	1.50	4.68
M/WBE Total	21.34	36.25	8.57	21.89	16.14	19.92
Non-M/WBE Total	78.66	63.75	91.43	78.11	83.86	80.08
Total (%)	100.00	100.00	100.00	100.00	100.00	100.00
Total ($)	1,192,361,693	285,319,588	389,284,709	152,769,175	588,090,775	2,607,825,941
Prime Contracts	255	317	515	265	913	2,265
Subcontracts	2,283	1,162	260	113	13	3,831

Source and Notes: Table 6.1.

[21] Additionally, Chapter VI also reports utilization during the study period of SBEs and ESBEs (See Table 6.3).

Table B2. M/WBE Utilization in Contracting at the City of San Antonio–All Contracts (Dollars Paid)

M/WBE Type	Procurement Category					
	Construction (%)	A&E (%)	Professional Services (%)	Other Services (%)	Goods & Supplies (%)	Overall (%)
African American	0.25	1.49	0.35	0.10	1.68	0.79
Hispanic	24.07	14.59	3.98	15.55	2.54	13.05
Asian/Pacific Islander	0.68	3.97	0.45	0.27	10.32	3.54
Native American	0.34	0.10	0.00	0.00	0.00	0.14
Minority Total	25.33	20.16	4.79	15.92	14.54	17.52
Nonminority female	8.47	11.73	2.46	7.45	0.99	5.79
M/WBE Total	33.80	31.89	7.25	23.37	15.53	23.30
Non-M/WBE Total	66.20	68.11	92.75	76.63	84.47	76.70
Total (%)	100.00	100.00	100.00	100.00	100.00	100.00
Total ($)	545,440,998	194,720,473	277,229,530	75,799,426	379,773,626	1,472,964,053
Prime Contracts	201	216	383	167	913	1,880
Subcontracts	2,118	779	215	84	13	3,209

Source: Table 6.2.

Additionally, we compared the utilization of M/WBEs on contracts with M/WBE goals compared to contracts where no M/WBE goals were established. We found that when all procurement categories are combined, M/WBE utilization is greater on contracts for which M/WBE goals were established. This is true for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, nonminority females, minorities as a group, and M/WBEs as a group. These differences are statistically significant as well, meaning that it is unlikely the differences can be attributed to chance variation alone. With only a few exceptions, this phenomenon was observed in each procurement category as well (See Table 6.4).

Finally in Chapter VI, we compared the use of M/WBEs on all City of San Antonio contracts and subcontracts from the study period to our measure of M/WBE availability in the relevant market area. If M/WBE utilization is lower than measured availability in a given category, we report this result as a disparity.

Table C1, on the following page, provides a top-level summary of our disparity findings for the Study for each major procurement category using dollars awarded. Table C2 provides comparable results using dollars paid.

Table C1. Utilization, Availability and Disparity Results for City of San Antonio Contracting, Overall and by Contracting Category–All Contracts (Dollars Awarded)

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio	
OVERALL				
African American	0.92	2.77	33.2	****
Hispanic	10.94	25.22	43.4	****
Asian/Pacific Islander	3.28	2.01		
Native American	0.10	1.14	9.1	****
Minority-owned	15.24	31.15	48.9	****
Nonminority female	4.68	10.03	46.7	****
M/WBE total	19.92	41.17	48.4	****
CONSTRUCTION				
African American	0.25	1.91	12.9	****
Hispanic	15.27	29.76	51.3	****
Asian/Pacific Islander	0.43	1.74	24.7	****
Native American	0.17	0.97	17.6	****
Minority-owned	16.12	34.38	46.9	****
Nonminority female	5.21	10.06	51.8	****
M/WBE total	21.34	44.44	48.0	****
ARCHITECTURE & ENGINEERING				
African American	1.64	1.17		
Hispanic	18.99	15.81		
Asian/Pacific Islander	4.81	3.05		
Native American	0.20	2.54	8.0	****
Minority-owned	25.64	22.57		
Nonminority female	10.60	7.98		
M/WBE total	36.25	30.55		
PROFESSIONAL SERVICES				
African American	1.15	6.34	18.1	****
Hispanic	3.86	22.48	17.2	****
Asian/Pacific Islander	0.41	0.72	57.4	
Native American	0.02	0.19	10.7	***
Minority-owned	5.44	29.74	18.3	****
Nonminority female	3.13	9.97	31.4	****
M/WBE total	8.57	39.70	21.6	****
OTHER SERVICES				
African American	1.04	4.00	26.1	****
Hispanic	14.35	32.30	44.4	****
Asian/Pacific Islander	0.84	2.11	39.5	****
Native American	0.00	1.12	0.0	****
Minority-owned	16.23	39.54	41.0	****
Nonminority female	5.66	15.26	37.1	****
M/WBE total	21.89	54.80	39.9	****

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio
GOODS & SUPPLIES			
African American	1.76	2.01	87.3
Hispanic	2.04	23.31	8.7 ****
Asian/Pacific Islander	10.84	4.01	
Native American	0.00	1.35	0.0 ****
Minority-owned	14.63	30.69	47.7 ****
Nonminority female	1.50	11.42	13.1 ****
M/WBE total	16.14	42.10	38.3 ****

Source: Table 6.5.

Notes: (1) "*" indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). "**" indicates an adverse disparity that is statistically significant at the 10% level or better (90% confidence). "***" indicates the disparity is significant at a 5% level or better (95% confidence). "****" indicates significance at a 1% level or better (99% confidence). (2) An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

Table C2. Utilization, Availability and Disparity Results for City of San Antonio Contracting, Overall and by Contracting Category–All Contracts (Dollars Paid)

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio	
OVERALL				
African American	0.79	2.78	28.5	****
Hispanic	13.05	26.67	48.9	****
Asian/Pacific Islander	3.54	1.61		
Native American	0.14	1.10	12.8	****
Minority-owned	17.52	32.15	54.5	****
Nonminority female	5.79	10.47	55.3	****
M/WBE total	23.30	42.62	54.7	****
CONSTRUCTION				
African American	0.25	1.91	12.9	****
Hispanic	24.07	35.60	67.6	****
Asian/Pacific Islander	0.68	0.72	94.0	
Native American	0.34	0.94	36.4	***
Minority-owned	25.33	39.17	64.7	****
Nonminority female	8.47	11.36	74.6	**
M/WBE total	33.80	50.52	66.9	****
ARCHITECTURE & ENGINEERING				
African American	1.49	1.19		
Hispanic	14.59	15.52	94.0	
Asian/Pacific Islander	3.97	2.46		
Native American	0.10	2.13	4.9	****
Minority-owned	20.16	21.30	94.7	
Nonminority female	11.73	7.47		
M/WBE total	31.89	28.77		
PROFESSIONAL SERVICES				
African American	0.35	5.63	6.3	****
Hispanic	3.98	27.04	14.7	****
Asian/Pacific Islander	0.45	0.60	75.4	
Native American	0.00	0.19	0.0	****
Minority-owned	4.79	33.47	14.3	****
Nonminority female	2.46	11.15	22.1	****
M/WBE total	7.25	44.62	16.3	****
OTHER SERVICES				
African American	0.10	4.45	2.2	****
Hispanic	15.55	30.10	51.7	****
Asian/Pacific Islander	0.27	2.16	12.6	****
Native American	0.00	0.92	0.0	****
Minority-owned	15.92	37.62	42.3	****
Nonminority female	7.45	15.88	46.9	****
M/WBE total	23.37	53.51	43.7	****

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio
GOODS & SUPPLIES			
African American	1.68	2.14	78.6
Hispanic	2.54	22.71	11.2 ****
Asian/Pacific Islander	10.32	4.01	
Native American	0.00	1.32	0.0 ****
Minority-owned	14.54	30.18	48.2 ****
Nonminority female	0.99	10.75	9.2 ****
M/WBE total	15.53	40.93	37.9 ****

Source: Table 6.6.

H. Anecdotal Evidence

Chapter VII presents the results of a large scale mail survey we conducted of M/WBEs and non-M/WBEs about their experiences and difficulties in obtaining contracts. The survey quantified and compared anecdotal evidence on the experiences of M/WBEs and non-M/WBEs as a method to examine whether any differences might be due to discrimination.

We found that M/WBEs that have been hired in the past by non-M/WBE prime contractors to work on public sector contracts with M/WBE goals are rarely hired—or even solicited—by these prime contractors to work on projects without M/WBE goals. The relative lack of M/WBE hiring and, moreover, the relative lack of solicitation of M/WBEs in the absence of affirmative efforts by the City of San Antonio and other public entities in the market area shows that business discrimination continues to fetter M/WBE business opportunities in the relevant markets.

We found that M/WBEs in the relevant market area report suffering business-related discrimination in large numbers and with statistically significantly greater frequency than non-M/WBEs. These differences remain statistically significant even when firm size and other "capacity"-related owner characteristics are held constant. Some of the largest disparities were observed in applying for commercial loans, applying for surety bonds, obtaining price quotes from suppliers, working or attempting to work on private sector prime contracts and subcontracts, applying for commercial or professional insurance, and functioning without hindrance or harassment on the work site.

We also found that M/WBEs in these markets are more likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it harder for them to conduct their businesses, and less likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it easier for them to conduct their businesses. In particular, previous experience requirements, the cost of bidding or proposing, large project sizes, and prior dealings with project owners were statistically significantly more difficult for M/WBEs than non-M/WBEs, even when holding firm size and other "capacity"-related owner characteristics constant. Other factors where M/WBEs reported more difficulty than similarly-situated non-M/WBEs included the price of supplies or materials, obtaining working capital, and late notice of bid/proposal deadlines.

Chapter VII also presents the results from a series of in-depth personal interviews conducted with 90 M/WBE and non-M/WBE business owners and representatives from the City of San Antonio's market area. Similar to the survey responses, the interviews strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to City of San Antonio, other public sector, and private sector contracts. Participants reported negative perceptions of M/WBE skills and abilities; discrimination in access to commercial loans and surety bonds; difficulties in receiving fair treatment in obtaining public sector subcontracts; abuses by primes of the payment process, and in the compliance process; and exclusion from significant private sector opportunities to perform as either prime contractors or as subcontractors.

We conclude that the statistical evidence presented in this report is consistent with these anecdotal accounts of contemporary business discrimination. The results of the surveys and the personal interviews are the types of anecdotal evidence that, especially in conjunction with the Study's extensive statistical evidence, the courts have found to be highly probative of whether, without affirmative interventions, the City of San Antonio would be a passive participant in a discriminatory local market area. It is also highly relevant for narrowly tailoring any M/WBE goals that are established.

I. The City of San Antonio's M/WBE Program: Overview and Feedback Interviews

Chapter VIII provides a review of the City of San Antonio's current M/WBE Program, followed by a summary of business owner experiences with these policies and procedures obtained from our interviews. We interviewed 90 business owners and representatives, as well as City staff, to solicit their feedback regarding the City's policies in this area. Our interviews covered the following subjects:

- The significance of the City's M/WBE Program;
- Supportive services;
- Certification standards and processes;
- Pre-award processes: Meeting M/WBE goals;
- Pre-award processes: Contract solicitations;
- Contract performance: Monitoring;
- Contract performance: Payment;
- Contract performance: Reporting technology;
- Contract performance: Retainage; and
- Contract performance: Front companies.

J. Recommendations for Revised Contracting Policies and Procedures

Finally, in Chapter IX we present the following suggested recommendations for revised contracting policies and procedures, based upon the Study's results and findings and upon our views on best practices contracting diversity programs.

1. Race- and Gender-Neutral Recommendations

Increase Efforts to Ensure Prompt Payment on City Contracts;

Ensure Bidder Non-Discrimination;

Review Surety Bonding, Insurance and Experience Requirements;

Increase Contract Unbundling;

Facilitate Increased Access to Capital;

Expand the Mentor-Protégé Program;

Continue to Provide Supportive Services for Construction Firms and Expand Supportive Services to Firms in Other Contracting Categories.

2. Race- and Gender-Conscious Remedies

Adopt a Renewed M/WBE Ordinance and Accompanying Program Regulations;

Increase Resources and Staffing for the SBEDA Program;

Adopt annual aspirational M/WBE Goals;

Count M/WBE Prime and Joint Venture Partner Participation Towards Meeting the M/WBE Goals;

Continue to Set Contract Specific Goals;

Continue the M/WBE Program Sunset Review Process.

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I. Introduction

The City of San Antonio commissioned this Study to evaluate whether minority-owned and women-owned business enterprises ("M/WBEs") in the City's market area have full and fair opportunities to compete for its prime contracts, purchases and associated subcontracts.

To ensure compliance with constitutional mandates, its own Small Business Economic Development Advocacy ("SBEDA") Ordinance, and M/WBE program best practices, the City of San Antonio commissioned NERA Economic Consulting to examine the past and current status of M/WBEs in its geographic and product markets for contracting and procurement. The results of the Study provide the evidentiary record necessary for the City's consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which previous efforts have assisted M/WBEs to compete on a fair basis in the City's contracting and procurement activity.

This Study finds statistical evidence consistent with the presence of business discrimination against M/WBEs in the private sector of the City of San Antonio market area. These findings are presented in Chapters IV and V. Statistical analyses of the City's own contracting and purchasing, which also document evidence consistent with business discrimination, are contained in Chapters II, III and VI. As a check on our statistical findings, documented in Chapter VII, we surveyed the contracting experiences of M/WBEs and non-M/WBEs in the market area and also conducted a series of in-depth personal interviews with business enterprises throughout the market area, both M/WBE and non-M/WBE.

As will be documented in this Study, during the study period the City of San Antonio has been a significant source of demand in the regional economy for the products and services provided by M/WBEs—demand that, in general, is found to be lacking in the private sector of the San Antonio economy and the surrounding region.

As documented below in Chapter VI, the City's prior efforts have produced positive results—M/WBEs earned approximately 23 percent of the City's overall contracting and subcontracting payments on contracts active during the study period. Strict scrutiny requires a "strong basis in evidence"[22] for concluding that discrimination persists and "narrowly tailored"[23] measures to address that discrimination. These principles guide and inform our work for the City of San Antonio in this Study.

The results of the 2015 Study provide the evidentiary record necessary for the City of San Antonio's consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which previous efforts have assisted M/WBEs to participate on a fair basis in the City's contracting activity.

The 2015 Study finds both statistical and anecdotal evidence of business discrimination against M/WBEs in the private sector of the City of San Antonio's market area. As a check on our

[22] *Id*. at 500 (citing *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277 (1986)).

[23] *Id.* at 506-508. *See also, Wygant,* 476 U.S. at 274.

statistical findings, we surveyed the contracting experiences and credit access experiences of M/WBEs and non-M/WBEs in the market area and we also conducted a series of in-depth personal interviews with local business enterprises, both M/WBE and non-M/WBE. Statistical analyses of the City's public sector contracting behavior appear below in Chapters II, III and VI.

A. Study Outline

The Study is presented in eight chapters, and is designed to answer the following questions:

Chapter I: Introduction

Chapter II: What is the relevant geographic market for the City of San Antonio and how is it defined? What are the relevant product markets for the City of San Antonio and how are they defined?

Chapter III: What percentage of all businesses in the City of San Antonio's market area are owned by minorities and/or women? How are these availability estimates constructed?

Chapter IV: Do minority and/or female wage and salary earners earn less than similarly situated nonminority males? Do minority and/or female business owners earn less from their businesses than similarly situated nonminority males? Are minorities and/or women in the City of San Antonio's market area less likely to be self-employed than similarly situated nonminority males? How do the findings in the City of San Antonio's market area differ from the national findings on these questions? How have these findings changed over time?

Chapter V: Do minorities and/or women face discrimination in the market for commercial capital and credit compared to similarly situated nonminority males? How, if at all, do findings locally differ from findings nationally?

Chapter VI: To what extent have M/WBEs been utilized by the City of San Antonio on contracts and purchases active during the study period, and how does this utilization compare to the availability of M/WBEs in the relevant market area?

Chapter VII: How many M/WBEs experienced disparate treatment in the study period? What types of discriminatory experiences are most frequently encountered by M/WBEs? How do the experiences of M/WBEs differ from those of similar non-M/WBEs regarding difficulties in obtaining prime contracts and subcontracts?

Chapter VIII: What general policies and procedures govern the City of San Antonio's M/WBE Program? What were some of the most frequently encountered comments from M/WBEs and non-M/WBEs concerning the City's contracting affirmative action programs?

In assessing these questions, we present in Chapters II through VII a series of quantitative and qualitative analyses that compare minority and/or female outcomes to nonminority male outcomes in all of these business-related areas. The Executive Summary, above, provides a brief overview of our key findings and conclusions.

Finally, Chapter IX contains our recommendations, based on the Study's findings and conclusions and our knowledge of M/WBE program best practices.

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II. Defining the Relevant Markets

A. Preparing the Master Contract/Subcontract Database

1. Overview

In the *Croson* decision, the Supreme Court indicated that the *national* findings by Congress of minority business discrimination in construction and related industries were not specific enough, or "narrowly tailored" enough, standing alone, to support an MBE program in the City of Richmond. For this reason, the first step in our evaluation of M/WBE availability and participation for the City of San Antonio is to define the relevant market area for its contracting and procurement activity. Markets have both a geographic dimension and a product, or industry, dimension.[24] Both aspects of market definition are considered in this chapter. For this Study, we define the relevant geographic market area based on the City of San Antonio's historical contracting and subcontracting records. This market dimension is determined empirically by examining the zip code distribution of utilized contractors and subcontractors.

Narrow tailoring also applies to product markets. The extent of disparity may differ from industry to industry just as it does among geographic locations.[25] Documenting the specific industries that comprise the City of San Antonio's contracting activities and the relative importance of each to contract and subcontract spending is important because it allows for: (1) implementation of more narrowly tailored availability estimation methods, (2) contract-level goal-setting, and (3) overall M/WBE availability estimates and annual goals that are a weighted average of underlying industry-level availability estimates, rather than a simple average. The weights used are the proportion of dollars awarded or paid within each industry and allow the overall availability measure to be influenced more heavily by availability in those industries where more contracting dollars are spent, and less heavily by availability in those industries where relatively fewer contracting dollars are spent.

We define the product market dimension by estimating which North American Industrial Classification System (NAICS) codes best describe each identifiable contractor, subcontractor, subconsultant, or supplier in those records.[26] In both cases, the definitions are weighted according to how many dollars were spent with firms from each zip code or NAICS code, respectively, so that locations and industries, respectively, receiving relatively more contracting dollars receive relatively more weight in the estimation of M/WBE availability. Once the geographic and industry parameters of the City of San Antonio's market area have been defined, we can restrict our subsequent analyses to business enterprises and other phenomena within this market area. Restricting our analyses in this manner narrowly tailors our findings to the City of San Antonio's specific market area and contracting circumstances.

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[24] *See*, for example, Areeda, P., L. Kaplow, and A. Edlin (2004).

[25] *See* Wainwright (2000), documenting that, in general, the similarities in the amount of discrimination present in different industries and geographic locations significantly outweigh the differences.

[26] Executive Office of the President, Office of Management and Budget (2012).

2. City of San Antonio Contracting and Purchasing

With assistance from the City, NERA collected all prime contract and purchase order award and payment records ("prime contracts") and associated subcontract, subconsultant and supplier award and payment records ("subcontracts")[27] spanning calendar years 2011 through 2013. These data were retrieved from the City of San Antonio's Contract Management System, its Central Vendor Registration System, and its SAP Accounts Payable System. Additionally, we collected records concerning prime contracts and subcontracts for the City's nine active job order contracts and its 2007 and 2012 bond-financed design contracts, data for which was maintained in separate systems.[28]

For each prime contract from the study period, we identified the business name and address of the prime contractor, a description of the contract or purchase, the associated City department, the contract number, start date, total award amount, and the total current paid amount. For each associated subcontract, we identified the business name and address of the subcontractor, the total award amount, and the total current paid amount. Further, the data we collected indicated whether or not an M/WBE goal had been established as well as the race, gender and certification status of each contractor and subcontractor.[29] We also cross-referenced business names and addresses with the State Historically Underutilized Business ("HUB") list and other directories (*see* Chapter III) to obtain additional contractor race and gender information.

Each prime contract was classified into one of five major procurement categories: (1) Construction, (2) Architecture, Engineering and Construction-Related Professional Services ("A&E"), (3) Professional Services (other than construction-related), (4) Other Services, and (5) Goods & Supplies. The five major procurement categories were assigned based primarily on City records. Additionally, we focused our research on contracts that were classified as "large" purchases, with a value exceeding $50,000. Such purchases, collectively, accounted for more than 95 percent of all City of San Antonio contract activity during the study period.

In this manner, a total of 2,337 prime contracts were identified from City records as comprising the contract universe.[30] According to City records, these 2,337 prime contracts had a cumulative award value of $2.59 billion and a cumulative paid value of $1.71 billion.

Not all of the prime contracts in the contract universe had subcontract opportunities or activity, however. In particular, contracts in the Goods and Supplies category rarely have such

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[27] Unlike many municipalities with M/WBE programs, the City maintains comprehensive subcontract records for all contracts on which the Economic Development Department ("EDD") established M/WBE goals.

[28] Data for the 2007 bond-financed design contracts spanned a time period from 2008-2011.

[29] Contractors could be certified in one or more of the following categories: Minority Business Enterprise ("MBE"), Woman Business Enterprise ("WBE"), Disadvantaged Business Enterprise ("DBE"), Small Business Enterprise ("SBE"), or Emerging Small Business Enterprise ("ESBE").

[30] Grants, leases for real property leases, contracts for acquisition of land, and interlocal agreements (with a small number of exceptions) were considered to be outside of the contract universe for the study.

opportunities,[31] and the majority of subcontract activity is observed on contracts in Construction and A&E. Of the 2,337 prime contracts in the contract universe, 275 (11.8%) were Construction contracts, 332 (14.2%) were A&E contracts, 535 (22.9%) were Professional Services contracts, 282 (12.1%) were Other Services contracts, and 913 (39.1%) were Goods & Supplies contracts.

Of these contracts, 442 were considered by EDD for an Affirmative Procurement Initiative ("API") under the Small Business Economic Development Advocacy program ("SBEDA"). Of these 442 contracts, goals were established on 237, or 54 percent. Additionally, there were 204 prime contracts on which APIs were pursued outside of the immediate purview of EDD—these were the Job Order prime contracts (9 in total), the 2007 bond-financed design prime contracts (122 in total), and the 2012 bond-financed design prime contracts (73 in total).

NERA conducted a review of the 1,691 remaining prime for which no API was considered in order to identify any with a strong likelihood of having subcontract opportunities. We identified 255 such prime contracts with a total award dollar value of $530.4 million. In consultation with the City, NERA developed a plan to directly contact the prime contractors associated with these contracts in order to verify the existing data and supplement it with additional subcontract records where appropriate. As noted above, it was not necessary to include Goods & Supplies contracts in this supplemental data collection and verification effort. Those prime contracts, of course, remained in the overall study universe.

The 255 prime contracts in our supplemental data collection sample were distributed among 184 different prime contractors. After an intensive data collection effort, and with the assistance of the City, we were ultimately able to obtain and/or verify the associated subcontract information for 183 of these 255 prime contracts, accounting for 72 percent of the prime contracts and 84 percent of the prime contract award dollars in the sample.[32] In combination with the balance of the City's prime contract and subcontract data, these percentages are sufficiently large to be well representative of the entire universe of City contracts and subcontracts being examined for this Study. The 183 prime contracts we successfully collected had 1,525 associated subcontracts.

After merging the data collected in our sample with the balance of the City contract and subcontract data, a total of 2,265 prime contracts and 3,831 associated subcontracts were collected and analyzed. The 2,265 prime contracts had a total award value of approximately $2.61 billion and a total paid value of approximately $1.79 billion.[33] Together, as shown below

[31] Nor do contracts valued at $50,000 or less.

[32] Dollar values reported by prime contractors did not always match City records exactly. According to prime-reported amounts. In order to achieve consistency with the subcontract dollar values we collected, we used prime-reported dollar amounts the various analyses conducted in this study.

[33] Not all contracts were substantially complete at the time the data was collected. For purposes of the Study, a contract was considered to be substantially complete if at least 75 percent of the total award amount had been paid (for contracts other than for Goods & Supplies) as of the time we verified the prime contract data. The total paid value of substantially complete contracts in the Master Contract/Subcontract Database was $1.47 billion, as shown in Table 2.1.

in Tables 2.1 through 2.3, these prime contracts and subcontracts comprise the Master Contract/Subcontract Database compiled for this Study.

Table 2.1 shows, for each major procurement category, the total number of prime contracts and associated subcontracts awarded, the total number of prime contracts and associated subcontracts substantially completed, total dollars awarded, and total dollars paid. Tables 2.2 and 2.3 show comparable information for each year of the study period.

Table 2.1. Summary of Master Contract/Subcontract Database: Contracts and Subcontracts by Procurement Category

CONTRACT CATEGORY	NUMBER OF AWARDED CONTRACTS	NUMBER OF PAID CONTRACTS	DOLLARS AWARDED ($)	DOLLARS PAID ($)
CONSTRUCTION			1,192,361,693	545,440,998
Prime Contracts	255	201	698,701,807	269,760,656
Subcontracts	2,283	2,118	493,659,887	275,680,342
ARCHITECTURE & ENGINEERING			285,319,588	194,720,473
Prime Contracts	317	216	174,839,441	114,028,168
Subcontracts	1,162	779	110,480,148	80,692,305
PROFESSIONAL SERVICES			389,284,709	277,229,530
Prime Contracts	515	383	325,008,885	223,693,304
Subcontracts	260	215	64,275,825	53,536,226
OTHER SERVICES			152,769,175	75,799,426
Prime Contracts	265	167	139,592,914	66,561,792
Subcontracts	113	84	13,176,261	9,237,634
GOODS & SUPPLIES			588,090,775	379,773,626
Prime Contracts	913	504	587,009,647	379,436,881
Subcontracts	13	7	1,081,128	336,745
GRAND TOTAL			2,607,825,941	1,472,964,053
Prime Contracts	2,265	1,471	1,925,152,693	1,053,480,801
Subcontracts	3,831	3,203	682,673,248	419,483,252

Source: NERA calculations from Master Contract/Subcontract Database.

Note: Prime Contract dollar amounts are net of subcontract amounts.

Table 2.2 shows the total number of prime contracts awarded during each year of the Study period and total dollars awarded for those contracts, by major procurement category.[34]

Table 2.2. Summary of Master Contract/Subcontract Database: Prime Contracts by Year (Dollars Awarded)

PROCUREMENT CATEGORY & YEAR	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED ($)
CONSTRUCTION		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	115	294,156,568
2012	72	608,070,902
2013	68	290,134,224
TOTAL	255	1,192,361,694
ARCHITECTURE & ENGINEERING		
2008	76	30,348,377
2009	41	25,865,107
2010	4	1,094,380
2011	57	105,732,497
2012	104	95,298,716
2013	35	26,980,513
TOTAL	317	285,319,590
PROFESSIONAL SERVICES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	202	128,954,000
2012	190	161,831,104
2013	123	98,499,606
TOTAL	515	389,284,710

[34] Data for 2008-2010 is present in Tables 2.2 and 2.3 only for the Architecture & Engineering category, reflecting the presence of the 2007 Bond-financed design contracts in the Master Contract/Subcontract Database.

Table 2.2. Summary of Master Contract/Subcontract Database: Prime Contracts by Year (Dollars Awarded), cont'd

PROCUREMENT CATEGORY & YEAR	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED ($)
OTHER SERVICES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	99	67,041,459
2012	72	41,687,358
2013	94	44,040,357
TOTAL	265	152,769,175
GOODS & SUPPLIES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	538	392,889,575
2012	167	75,823,335
2013	208	119,377,865
TOTAL	913	588,090,775
GRAND TOTAL		
2008	76	30,348,377
2009	41	25,865,107
2010	4	1,094,380
2011	1,011	988,774,099
2012	605	982,711,417
2013	528	579,032,564
TOTAL	2,265	2,607,825,944

Source: See Table 2.1.

Table 2.3 shows the total number of prime contracts awarded during each year of the Study period and total dollars paid for those contracts, by major procurement category.

Table 2.3. Summary of Master Contract/Subcontract Database: Prime Contracts by Year (Dollars Paid)

PROCUREMENT CATEGORY & YEAR	NUMBER OF PRIME CONTRACTS	DOLLARS PAID ($)
CONSTRUCTION		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	115	261,123,787
2012	72	157,139,368
2013	68	127,177,842
TOTAL	255	545,440,997
ARCHITECTURE & ENGINEERING		
2008	76	27,507,845
2009	41	19,777,600
2010	4	698,355
2011	57	82,471,078
2012	104	58,287,838
2013	35	5,977,759
TOTAL	317	194,720,474
PROFESSIONAL SERVICES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	202	94,414,100
2012	190	118,716,531
2013	123	64,098,899
TOTAL	515	277,229,530

Table 2.3. Summary of Master Contract/Subcontract Database: Prime Contracts by Year (Dollars Paid), cont'd

PROCUREMENT CATEGORY & YEAR	NUMBER OF PRIME CONTRACTS	DOLLARS PAID ($)
OTHER SERVICES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	99	31,437,069
2012	72	18,233,808
2013	94	26,128,550
TOTAL	265	75,799,426
GOODS & SUPPLIES		
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	538	239,364,983
2012	167	63,672,725
2013	208	76,735,918
TOTAL	913	379,773,626
GRAND TOTAL		
2008	76	27,507,845
2009	41	19,777,600
2010	4	698,355
2011	1,011	708,811,016
2012	605	416,050,270
2013	528	300,118,967
TOTAL	2,265	1,472,964,053

Source: See Table 2.1.

B. Geographic Market Definition for Contracting and Procurement

To determine the geographic dimension of the City of San Antonio's contracting and procurement markets, we used the Master Contract/Subcontract Database, as described in the previous section, to obtain the zip codes and thereby the county and state for each contractor and subcontractor establishment identified in the database. Using this location information, we then calculated the percentage of City contract and subcontract dollars awarded to establishments by

state and county during the study period. As discussed above, the geographic market area is defined as that region which accounts for approximately 75 percent of overall contracting and procurement spending by a given state or local government. Contractors and vendors with locations in the San Antonio-New Braunfels, TX Metropolitan Statistical Area (MSA) account for the large majority of contracting and procurement expenditures by the City of San Antonio during the study period.[35]

As shown in Table 2.4, the overall share of expenditures inside this market area is 78.0 percent of dollars awarded and 74.4 percent of dollars paid. The share is 75.0 percent or greater in Construction, Architecture and Engineering, Professional Services and Other Services regardless of whether dollars awarded or dollars paid is used as the metric. The share is highest in Construction, followed by Architecture and Engineering, Professional Services, Other Services, and finally Goods and Supplies.[36] For purposes of this Study, therefore, we define the relevant geographic market area to be the San Antonio-New Braunfels, TX MSA.

Table 2.4. Distribution of Contracting Dollars by Geographic Location

Location	Construc-tion (%)	A&E (%)	Profess. Services (%)	Other Services (%)	Goods & Supplies (%)	Total (%)
Dollars Awarded						
Inside San Antonio Market Area	87.9	85.3	77.8	79.9	54.2	78.0
Outside San Antonio Market Area	12.1	14.7	22.2	20.1	45.8	22.0
Dollars Paid						
Inside San Antonio Market Area	84.9	83.0	81.0	75.0	50.0	74.4
Outside San Antonio Market Area	15.1	17.0	19.0	25.0	50.0	25.6
Dollars Awarded						
Inside Texas	94.9	95.3	88.4	83.2	73.9	88.5
Outside Texas	5.1	4.7	11.6	16.8	26.1	11.5
Dollars Paid						
Inside Texas	98.3	95.6	95.7	79.5	72.6	89.8
Outside Texas	1.7	4.4	4.3	20.5	27.4	10.2

Source: See Table 2.1.

[35] The San Antonio-New Braunfels, TX MSA includes Bexar County, Comal County, Guadalupe County, Atascosa County, Bandera County, Kendall County, Medina County, and Wilson County.

[36] For informational purposes, Table 2.4 also shows the share of awards and payments inside and outside the State of Texas.

Table 2.5 shows the geographic distribution of contract and procurement dollars across all procurement categories within the City of San Antonio market area. About 94 percent of all dollars awarded within the market area are awarded to firms with locations inside Bexar County, followed in descending order by firms with locations in the Texas counties of Guadalupe, Kendall, Comal, Atascosa, Medina, Wilson and Bandera.

Table 2.5. Distribution of City of San Antonio Contract Award Dollars by State and County, Inside the Market Area

STATE	COUNTY	AMOUNT ($)	PERCENT	CUMULATIVE PERCENT
TX	Bexar	1,912,509,848	93.97	93.97
TX	Guadalupe	58,251,363	2.86	96.83
TX	Kendall	27,461,231	1.35	98.18
TX	Comal	23,129,284	1.14	99.32
TX	Atascosa	8,509,177	0.42	99.74
TX	Medina	2,958,842	0.15	99.88
TX	Wilson	2,203,308	0.11	99.99
TX	Bandera	225,402	0.01	100.00

Source: See Table 2.1.

Outside the market area, counties with a significant amount of spending activity (defined, somewhat arbitrarily, as geographies that accounted for more than approximately 1.0 percent of total spending among three or more vendors) included:

CONSTRUCTION

Travis, TX
Harris, TX
Maricopa, AZ
Hays, TX
Williamson, TX
Hidalgo, TX
Denton, TX

ARCHITECTURE & ENGINEERING

Harris, TX
Dallas, TX
Travis, TX
Williamson, TX
Tarrant, TX
Fulton, GA

PROFESSIONAL SERVICES

Travis, TX
Cook, IL
Dallas, TX
Tarrant, TX
New York, NY
Harris, TX
Denton, TX

OTHER SERVICES

Fairfax, VA
Travis, TX
Dallas, TX
Harris, TX

GOODS & SUPPLIES	GOODS & SUPPLIES, CONT'D
Orange, CA	Middlesex, MA
Dallas, TX	San Diego, CA
Harris, TX	Cook, IL
Tarrant, TX	Fairfax, VA
Travis, TX	Santa Clara, CA
San Diego, CA	Los Angeles, CA

C. Product Market Definition for Contracting and Procurement

Using the major procurement categories for each prime contract and the primary NAICS codes assigned by NERA to each prime contractor and subcontractor in the Master Contract/ Subcontract Database, we identified the most important Industry Groups within each contracting and procurement category, as measured by total dollars awarded. The relevant NAICS codes and their associated dollar weights appear below in Tables 2.6 through 2.10 for Construction, Architecture and Engineering, Professional Services, Other Services, and Goods & Supplies, respectively.

Each Industry Group (four-digit NAICS) identified in Tables 2.6 through 2.10 consists of several more detailed Industries (five- and six-digit NAICS) and, as well, is part of a more aggregated Industry Sub-sector (three-digit NAICS). Overall, City of San Antonio contracting awards occur in 71 NAICS Industry Sub-sectors, 191 NAICS Industry Groups and 391 NAICS Industries. In Construction, contract spending occurs across 50 NAICS Industry Sub-sectors, 121 NAICS Industry Groups and 215 NAICS Industries. In Architecture & Engineering, spending occurs across 32 NAICS Industry Sub-sectors, 61 NAICS Industry Groups and 96 NAICS Industries. In Professional Services, spending occurs across 43 NAICS Industry Sub-sectors, 92 NAICS Industry Groups and 159 NAICS Industries. In Other Services, spending occurs across 40 NAICS Industry Sub-sectors, 81 NAICS Industry Groups and 108 NAICS Industries. In Goods & Supplies, spending occurs across 51 NAICS Industry Sub-sectors, 111 NAICS Industry Groups and 188 NAICS Industries.

Many industries are part of the City's contracting activities. However, Tables 2.6 through 2.10 demonstrate that actual contracting and subcontracting opportunities are not distributed evenly among these industries. The distribution of contract expenditures is, in fact, highly skewed. In Construction, we see from Table 2.6 that just five Industry Groups alone (NAICS 2362, 4238, 2381, 2382 and 5413) account for over three-fourths of all award dollars, and just 10 Industry Groups account for over 90 percent, with the remainder distributed among another 101 additional Industry Groups.

Table 2.6. Distribution of Contract and Subcontract Dollars Awarded by Industry Group: Construction

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
2362	Nonresidential Building Construction	36.34	36.34
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	17.01	53.35
2381	Foundation, Structure, and Building Exterior Contractors	7.71	61.06
2382	Building Equipment Contractors	7.39	68.45
5413	Architectural, Engineering, and Related Services	7.13	75.59
2389	Other Specialty Trade Contractors	5.87	81.45
2372	Land Subdivision	3.88	85.33
3323	Architectural and Structural Metals Manufacturing	2.71	88.05
2383	Building Finishing Contractors	1.54	89.58
2123	Nonmetallic Mineral Mining and Quarrying	1.40	90.98
3273	Cement and Concrete Product Manufacturing	0.85	91.83
7121	Museums, Historical Sites, and Similar Institutions	0.72	92.55
4233	Lumber and Other Construction Materials Merchant Wholesalers	0.66	93.21
2379	Other Heavy and Civil Engineering Construction	0.59	93.80
5617	Services to Buildings and Dwellings	0.55	94.34
4842	Specialized Freight Trucking	0.38	94.72
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	0.35	95.07
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	0.30	95.38
6113	Colleges, Universities, and Professional Schools	0.27	95.65
3272	Glass and Glass Product Manufacturing	0.27	95.92
8133	Social Advocacy Organizations	0.23	96.15
5418	Advertising, Public Relations, and Related Services	0.22	96.37
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	0.22	96.59
5629	Remediation and Other Waste Management Services	0.20	96.79
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	0.20	96.99
5311	Lessors of Real Estate	0.18	97.17
5121	Motion Picture and Video Industries	0.18	97.35
2361	Residential Building Construction	0.15	97.50
5416	Management, Scientific, and Technical Consulting Services	0.14	97.64
3219	Other Wood Product Manufacturing	0.14	97.78

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
3231	Printing and Related Support Activities	0.13	97.91
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	0.13	98.04
4889	Other Support Activities for Transportation	0.13	98.17
8112	Electronic and Precision Equipment Repair and Maintenance	0.12	98.29
3279	Other Nonmetallic Mineral Product Manufacturing	0.11	98.41
2371	Utility System Construction	0.11	98.52
3339	Other General Purpose Machinery Manufacturing	0.10	98.61
3399	Other Miscellaneous Manufacturing	0.10	98.71
7115	Independent Artists, Writers, and Performers	0.09	98.80
3315	Foundries	0.09	98.89
5313	Activities Related to Real Estate	0.07	98.97
3342	Communications Equipment Manufacturing	0.07	99.04
	Balance of industries (79 industry groups)	0.96	100.00
	TOTAL - $1,192,361,693		

Source: See Table 2.1.

In Architecture & Engineering (Table 2.7), there is an even more concentrated pattern—one Industry Group alone (NAICS 5413) accounts for almost three-fifths of all award dollars and six Industry Groups account for over 90 percent, with the balance distributed among another 55 Industry Groups.

Table 2.7. Distribution of Contract and Subcontract Dollars Awarded by Industry Group: Architecture & Engineering

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
5413	Architectural, Engineering, and Related Services	58.67	58.67
2372	Land Subdivision	10.77	69.45
5416	Management, Scientific, and Technical Consulting Services	9.41	78.85
2381	Foundation, Structure, and Building Exterior Contractors	5.35	84.21
2382	Building Equipment Contractors	4.51	88.71
2383	Building Finishing Contractors	3.58	92.30
2362	Nonresidential Building Construction	1.65	93.95
3323	Architectural and Structural Metals Manufacturing	0.64	94.59

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
5629	Remediation and Other Waste Management Services	0.57	95.16
3273	Cement and Concrete Product Manufacturing	0.54	95.71
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	0.50	96.21
2389	Other Specialty Trade Contractors	0.47	96.68
7115	Independent Artists, Writers, and Performers	0.39	97.07
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	0.37	97.44
5417	Scientific Research and Development Services	0.33	97.77
5617	Services to Buildings and Dwellings	0.30	98.07
3339	Other General Purpose Machinery Manufacturing	0.25	98.32
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	0.23	98.55
5418	Advertising, Public Relations, and Related Services	0.19	98.74
4422	Home Furnishings Stores	0.19	98.92
3219	Other Wood Product Manufacturing	0.17	99.10
	Balance of industries (40 industry groups)	0.90	100.00
	TOTAL - $285,319,588		

Source: See Table 2.1.

In Professional Services (Table 2.8), just six Industry Groups account for more than half of all awards, 13 Industry Groups account for over three-fourths, and the remainder is distributed among 79 additional Industry Groups.

Table 2.8. Distribution of Contract and Subcontract Dollars Awarded by Industry Group: Professional Services

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
6241	Individual and Family Services	20.77	20.77
5241	Insurance Carriers	11.85	32.62
5418	Advertising, Public Relations, and Related Services	5.15	37.77
8134	Civic and Social Organizations	5.14	42.91
6211	Offices of Physicians	4.89	47.79
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	4.73	52.52
8133	Social Advocacy Organizations	4.46	56.98
5416	Management, Scientific, and Technical Consulting Services	4.21	61.19

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
2381	Foundation, Structure, and Building Exterior Contractors	3.60	64.79
8132	Grantmaking and Giving Services	3.48	68.27
5221	Depository Credit Intermediation	2.88	71.15
6242	Community Food and Housing, and Emergency and Other Relief Services	2.41	73.56
7121	Museums, Historical Sites, and Similar Institutions	2.28	75.84
5242	Agencies, Brokerages, and Other Insurance Related Activities	2.11	77.95
2382	Building Equipment Contractors	1.89	79.84
7111	Performing Arts Companies	1.84	81.68
5413	Architectural, Engineering, and Related Services	1.79	83.47
2372	Land Subdivision	1.36	84.83
2383	Building Finishing Contractors	1.31	86.15
7139	Other Amusement and Recreation Industries	1.04	87.19
4232	Furniture and Home Furnishing Merchant Wholesalers	1.02	88.20
6116	Other Schools and Instruction	0.96	89.17
8139	Business, Professional, Labor, Political, and Similar Organizations	0.87	90.04
5619	Other Support Services	0.83	90.87
2389	Other Specialty Trade Contractors	0.69	91.56
7113	Promoters of Performing Arts, Sports, and Similar Events	0.64	92.21
5622	Waste Treatment and Disposal	0.57	92.78
7115	Independent Artists, Writers, and Performers	0.54	93.32
4233	Lumber and Other Construction Materials Merchant Wholesalers	0.48	93.79
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	0.43	94.22
5419	Other Professional, Scientific, and Technical Services	0.40	94.63
5151	Radio and Television Broadcasting	0.33	94.96
5223	Activities Related to Credit Intermediation	0.31	95.27
5617	Services to Buildings and Dwellings	0.30	95.57
3231	Printing and Related Support Activities	0.28	95.85
6117	Educational Support Services	0.28	96.13
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	0.28	96.40
5239	Other Financial Investment Activities	0.26	96.66
5112	Software Publishers	0.23	96.89
8131	Religious Organizations	0.23	97.12
5411	Legal Services	0.22	97.34

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
5417	Scientific Research and Development Services	0.20	97.54
5313	Activities Related to Real Estate	0.19	97.74
6244	Child Day Care Services	0.19	97.93
5414	Specialized Design Services	0.16	98.09
6239	Other Residential Care Facilities	0.14	98.24
5415	Computer Systems Design and Related Services	0.14	98.37
6215	Medical and Diagnostic Laboratories	0.12	98.50
4532	Office Supplies, Stationery, and Gift Stores	0.12	98.62
6213	Offices of Other Health Practitioners	0.12	98.74
6113	Colleges, Universities, and Professional Schools	0.10	98.84
6221	General Medical and Surgical Hospitals	0.09	98.93
4422	Home Furnishings Stores	0.09	99.02
	Balance of industries (39 industry groups)	0.98	100.00
	TOTAL - $389,284,709		

Source: See Table 2.1.

In Other Services (Table 2.9), we see that five Industry Groups account for more than half of all award dollars, 11 Industry Groups account for three-fourths, and the remainder is distributed among 70 additional Industry Groups.

Table 2.9. Distribution of Contract and Subcontract Dollars Awarded by Industry Group: Other Services

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
5613	Employment Services	20.75	20.75
8139	Business, Professional, Labor, Political, and Similar Organizations	9.16	29.91
5617	Services to Buildings and Dwellings	9.13	39.04
5616	Investigation and Security Services	7.04	46.08
5415	Computer Systems Design and Related Services	7.01	53.10
2382	Building Equipment Contractors	6.08	59.18
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	5.59	64.78
7223	Special Food Services	3.47	68.25
5416	Management, Scientific, and Technical Consulting Services	2.67	70.92
6241	Individual and Family Services	2.31	73.23
5622	Waste Treatment and Disposal	2.25	75.48
8134	Civic and Social Organizations	1.99	77.47

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
2389	Other Specialty Trade Contractors	1.83	79.30
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	1.75	81.05
6216	Home Health Care Services	1.55	82.59
5413	Architectural, Engineering, and Related Services	1.47	84.07
4481	Clothing Stores	1.01	85.08
3339	Other General Purpose Machinery Manufacturing	0.99	86.07
7121	Museums, Historical Sites, and Similar Institutions	0.98	87.06
4855	Charter Bus Industry	0.92	87.98
2362	Nonresidential Building Construction	0.87	88.85
8123	Drycleaning and Laundry Services	0.79	89.65
5615	Travel Arrangement and Reservation Services	0.79	90.43
8133	Social Advocacy Organizations	0.78	91.22
5112	Software Publishers	0.67	91.89
2381	Foundation, Structure, and Building Exterior Contractors	0.65	92.54
5418	Advertising, Public Relations, and Related Services	0.55	93.09
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	0.55	93.64
4842	Specialized Freight Trucking	0.52	94.16
7115	Independent Artists, Writers, and Performers	0.52	94.68
6113	Colleges, Universities, and Professional Schools	0.38	95.05
5621	Waste Collection	0.36	95.41
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	0.36	95.77
8129	Other Personal Services	0.31	96.08
4422	Home Furnishings Stores	0.30	96.38
5419	Other Professional, Scientific, and Technical Services	0.29	96.67
5414	Specialized Design Services	0.22	96.89
5321	Automotive Equipment Rental and Leasing	0.21	97.09
4541	Electronic Shopping and Mail-Order Houses	0.20	97.29
5121	Motion Picture and Video Industries	0.17	97.47
5172	Wireless Telecommunications Carriers (except Satellite)	0.16	97.63
5111	Newspaper, Periodical, Book, and Directory Publishers	0.16	97.79
3343	Audio and Video Equipment Manufacturing	0.16	97.95
4244	Grocery and Related Product Merchant Wholesalers	0.15	98.10
4239	Miscellaneous Durable Goods Merchant Wholesalers	0.15	98.25
6244	Child Day Care Services	0.15	98.40

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	0.14	98.54
3359	Other Electrical Equipment and Component Manufacturing	0.12	98.66
7111	Performing Arts Companies	0.12	98.78
7113	Promoters of Performing Arts, Sports, and Similar Events	0.09	98.87
4853	Taxi and Limousine Service	0.09	98.96
4461	Health and Personal Care Stores	0.08	99.05
	Balance of industries (29 industry groups)	0.95	100.00
	TOTAL - $152,769,175		

Source: See Table 2.1.

Finally, in Goods & Supplies (Table 2.10), we see that just six Industry Groups account for over half of all award dollars, 14 Industry Groups account for three-fourths, and the remainder is distributed among 96 additional Industry Groups.

Table 2.10. Distribution of Contract and Subcontract Dollars Awarded by Industry Group: Goods & Supplies

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
4411	Automobile Dealers	11.62	11.62
4247	Petroleum and Petroleum Products Merchant Wholesalers	10.21	21.83
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	8.69	30.52
5415	Computer Systems Design and Related Services	7.93	38.45
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	6.26	44.70
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	6.10	50.81
2123	Nonmetallic Mineral Mining and Quarrying	4.79	55.60
5172	Wireless Telecommunications Carriers (except Satellite)	3.62	59.21
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	3.39	62.60
4532	Office Supplies, Stationery, and Gift Stores	3.24	65.84
4413	Automotive Parts, Accessories, and Tire Stores	3.16	69.00
4239	Miscellaneous Durable Goods Merchant Wholesalers	2.40	71.40
5179	Other Telecommunications	2.30	73.70
3342	Communications Equipment Manufacturing	2.13	75.82

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
5413	Architectural, Engineering, and Related Services	1.71	77.53
2382	Building Equipment Contractors	1.51	79.04
3364	Aerospace Product and Parts Manufacturing	1.49	80.53
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1.30	81.83
3341	Computer and Peripheral Equipment Manufacturing	1.24	83.07
5112	Software Publishers	1.10	84.17
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	0.97	85.14
4232	Furniture and Home Furnishing Merchant Wholesalers	0.83	85.97
3339	Other General Purpose Machinery Manufacturing	0.83	86.81
3241	Petroleum and Coal Products Manufacturing	0.80	87.61
3343	Audio and Video Equipment Manufacturing	0.74	88.35
5418	Advertising, Public Relations, and Related Services	0.61	88.96
4241	Paper and Paper Product Merchant Wholesalers	0.60	89.56
8111	Automotive Repair and Maintenance	0.50	90.06
5111	Newspaper, Periodical, Book, and Directory Publishers	0.43	90.49
3399	Other Miscellaneous Manufacturing	0.41	90.90
4441	Building Material and Supplies Dealers	0.40	91.30
2362	Nonresidential Building Construction	0.39	91.69
5321	Automotive Equipment Rental and Leasing	0.38	92.07
3361	Motor Vehicle Manufacturing	0.35	92.42
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	0.34	92.77
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	0.32	93.09
5416	Management, Scientific, and Technical Consulting Services	0.31	93.39
3261	Plastics Product Manufacturing	0.30	93.70
4233	Lumber and Other Construction Materials Merchant Wholesalers	0.29	93.99
5419	Other Professional, Scientific, and Technical Services	0.27	94.26
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	0.25	94.51
3231	Printing and Related Support Activities	0.23	94.74
5616	Investigation and Security Services	0.22	94.96
4511	Sporting Goods, Hobby, and Musical Instrument Stores	0.22	95.17
4246	Chemical and Allied Products Merchant Wholesalers	0.21	95.39
5629	Remediation and Other Waste Management Services	0.20	95.59
4242	Drugs and Druggists' Sundries Merchant Wholesalers	0.19	95.78

NAICS Industry Group	NAICS Description	Percentage	Cumulative Percentage
4541	Electronic Shopping and Mail-Order Houses	0.18	95.96
3331	Agriculture, Construction, and Mining Machinery Manufacturing	0.17	96.13
3363	Motor Vehicle Parts Manufacturing	0.16	96.29
3333	Commercial and Service Industry Machinery Manufacturing	0.16	96.45
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	0.16	96.61
4842	Specialized Freight Trucking	0.15	96.76
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	0.15	96.91
5617	Services to Buildings and Dwellings	0.15	97.06
5191	Other Information Services	0.15	97.21
3255	Paint, Coating, and Adhesive Manufacturing	0.14	97.35
4512	Book Stores and News Dealers	0.14	97.49
4412	Other Motor Vehicle Dealers	0.14	97.63
3254	Pharmaceutical and Medicine Manufacturing	0.13	97.76
5621	Waste Collection	0.12	97.88
2371	Utility System Construction	0.11	97.99
3311	Iron and Steel Mills and Ferroalloy Manufacturing	0.11	98.10
6244	Child Day Care Services	0.10	98.20
3312	Steel Product Manufacturing from Purchased Steel	0.10	98.30
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	0.09	98.39
8112	Electronic and Precision Equipment Repair and Maintenance	0.09	98.48
3359	Other Electrical Equipment and Component Manufacturing	0.08	98.56
3259	Other Chemical Product and Preparation Manufacturing	0.08	98.64
3372	Office Furniture (including Fixtures) Manufacturing	0.08	98.72
3391	Medical Equipment and Supplies Manufacturing	0.07	98.80
2389	Other Specialty Trade Contractors	0.07	98.87
5121	Motion Picture and Video Industries	0.07	98.94
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	0.07	99.01
	Balance of industries (36 industry groups)	0.99	100.00
	TOTAL - $588,090,775		

Source: See Table 2.1.

The resulting percentage weights from these NAICS Sub-sectors, Groups, and Industries are used below in Chapter III to calculate average M/WBE availability figures for Construction, A&E, Professional Services, Other Services and Goods & Supplies.[37]

[37] After re-normalizing the percentage weights to sum to 100.

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III. M/WBE Availability in the City of San Antonio's Market Area

A. Introduction

Estimates of M/WBE availability are an important element of the City of San Antonio's disparity study since they provide benchmarks for assessing the effectiveness of its efforts to encourage M/WBE participation in its contracting and procurement. Furthermore, they provide a means by which to establish overall goals as well as contract-level goals for M/WBE participation that are tailored to its relevant market area.

Many approaches to estimating availability suffer from internal inconsistency since the data employed to construct the availability numerator (*i.e.,* the total number of M/WBE establishments in the market area) are measured differently than the data employed to construct the availability denominator (*i.e.,* the total number of establishments in the market area). For example, the numerator might be drawn from an agency's internal list of certified M/WBEs while the denominator might be drawn from Census data. Since the methods used to identify and certify firms as M/WBEs are different from the methods used by the Census Bureau to count business establishments, such approaches inevitably compare "apples to oranges."

For this Study, we measure availability using an approach that ensures an "apples to apples" comparison between the availability numerator and denominator. This "Custom Census" method was pioneered by NERA and has been favorably reviewed by each court that has examined it to date. The Tenth Circuit found the custom census approach to be "a more sophisticated method to calculate availability than the earlier studies [by the other consultant in this case]."[38] Likewise, this method was successful in the defense of the DBE programs for Minnesota DOT[39] and Illinois DOT,[40] the M/WBE construction program for the City of Chicago,[41] and, most recently, in the successful defense of a DBE program challenge to U.S. DOT, the Illinois DOT, and the Illinois State Toll Highway Authority.[42]

In addition to its favorable reception in the courts, when properly executed, the Custom Census method is superior to other approaches for at least three reasons. First, as already mentioned, it provides an internally consistent and rigorous "apples to apples" comparison between establishments in the availability numerator and those in the denominator. Second, it comports with the remedial nature of most M/WBE policies by measuring overall M/WBE availability in the relevant market area as opposed to only those businesses currently certified by an agency.[43]

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[38] *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 966 (10th Cir. 2003) ("*Concrete Works IV*"), *cert. denied*, 540 U.S. 1027 (2003).

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

[40] *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007).

[41] *Builders Ass'n of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003).

[42] *Midwest Fence Corp. v. United States Department of Transportation, et al.*, 2015 U.S. Dist. Lexis 36277 (N.D. Ill. Mar. 24, 2015).

[43] *See Northern Contracting*, 473 F.3d at 723 ("We agree with the district court that the remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net.").

Third, a properly executed Custom Census is less likely to be tainted by the effects of past and present discrimination than other methods.[44]

The Custom Census method has seven steps. These are:

1. Create a database of representative and recent City of San Antonio contracts in Construction, Architecture & Engineering, Professional Services, Other Services and Goods & Supplies;
2. Identify the City's relevant geographic market from this database;
3. Identify the City's relevant product market from this database;
4. Count all business establishments in the relevant market area;
5. Identify listed M/WBE establishments in the relevant market area;
6. Verify the ownership status of listed M/WBEs; and
7. Verify the ownership status of all other firms in the relevant market area.

Steps 1-3 were described above in Chapter II. Steps 4-7 are described in more detail below.

B. Identifying Business Establishments in the Relevant Markets

M/WBE availability (unweighted) is defined as the number of M/WBEs divided by the total number of business establishments in the City of San Antonio's contracting market area—what we will refer to as the Baseline Business Universe.[45] Determining the total number of business establishments in the market area, however, is a less complex task than determining the number of minority- or women-owned establishments in those markets. The latter has three main parts: (1) identify all listed M/WBEs in the relevant market; (2) verify the ownership status of listed M/WBEs; and (3) estimate the number of unlisted M/WBEs in the relevant market. This section describes how these tasks were accomplished for the City of San Antonio.

It is important to note that NERA's availability analysis is free from variables tainted by discrimination. Our approach recognizes that discrimination may impact many of the variables that contribute to a firm's success in obtaining work as a prime or a subcontractor. Factors such as firm size, time in business, qualifications, and experience are all adversely affected by discrimination if it is present in the market area. Despite the obvious relationship, some commentators argue that disparities should only be assessed between firms with similar "capacities."[46]

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[44] *See* Section B.5., below, for further discussion of this point.

[45] To yield a percentage, the resulting figure is multiplied by 100.

[46] *See,* e.g., La Noue (2006). Most of La Noue's expert report in *Gross Seed Company v. Nebraska Department of Roads*, No. 02-3016 (D. Neb. 2002), including his views on "capacity," was rejected by the court on the basis

However, some courts have properly refused to make the results of discrimination the benchmark for non-discrimination.[47] They have acknowledged that M/WBEs 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.[48]

1. Estimate the Total Number of Business Establishments in the Market

We used data supplied by Dun & Bradstreet to determine the total number of business establishments operating in the relevant geographic and product markets (these markets were discussed in the previous chapter). Dun & Bradstreet produces the most comprehensive publicly available database of business establishments in the U.S. This database contains over 18 million records and is updated continuously. Each record in Dun & Bradstreet represents a business establishment and includes the business name, address, telephone number, NAICS code, SIC code, business type, DUNS Number (a unique number assigned to each establishment by Dun & Bradstreet), and other descriptive information. Dun & Bradstreet gathers and verifies information from many different sources. These sources include, among others, annual management interviews, payment experiences, bank account information, filings for suits, liens, judgments and bankruptcies, news items, the U.S. Postal Service, utility and telephone service, business registrations, corporate charters, Uniform Commercial Code filings, and records of the Small Business Administration and other governmental agencies.

We used the Dun & Bradstreet database to identify the total number of businesses in each NAICS code that was identified as part of the City's product market. Table 3.1 shows the number of businesses identified in each NAICS Industry Group within the Construction category, along with the associated industry weight according to dollars awarded. Comparable data for Architecture & Engineering, Professional Services, Other Services and Goods & Supplies appear in Tables 3.2 through 3.5.[49]

Although numerous industries are represented in the City of San Antonio Baseline Business

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that it was legal opinion and not expert analysis. According to the court, "[legal analysis] is an issue solely for the Court and not for the presentation of expert testimony…." (see Defendants-Appellees' Brief, *Gross Seed Company v. Nebraska Department of Roads*, on appeal to the Eighth Circuit Court of Appeals).

[47] *North Shore Concrete and Assoc., Inc. v. City of New York,* No. 94-CV-4017, 1998 WL 273027 at *24-31 (E.D.N.Y. April 12, 1998); *Concrete Works of Colorado, Inc. v. City and County of Denver, et al.*, 321 F.3d 950, 981, 983 (10th Cir. 2003), *cert. denied*, 124 S.Ct. 556 (2003) ("MWBE construction firms are generally smaller and less experienced *because* of discrimination.… Additionally, we do not read *Croson* to require disparity studies that measure whether construction firms are able to perform a *particular contract*." (emphasis in the originals)). *See also Northern Contracting, Inc. v. State of Illinois, et al.*, 473 F.3d 715, 723 (7th Cir. 2007) ("We agree with the district court that the remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net [than a simple count of the number of registered and prequalified DBEs]."); and *Midwest Fence*, 2015 U.S. Lexis 36277 at *60-61.

[48] *Concrete Works*, 321 F.3d at 981 (emphasis in the original). *See also* Wainwright and Holt (2010), Appendix B "Understanding Capacity," and Section B.5, below.

[49] Analogous sets of weights using paid dollars, were also produced. They are similar and not published here due to space considerations.

Universe, contracting and subcontracting opportunities are not distributed evenly among them. Indeed, the distribution of contract expenditures is quite skewed, as documented above in Chapter II.

Table 3.1. Construction—Number of Establishments and Industry Weight, by NAICS Code

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
2362	Nonresidential Building Construction	473	36.70	36.70
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	290	17.14	53.84
2381	Foundation, Structure, and Building Exterior Contractors	564	7.77	61.62
2382	Building Equipment Contractors	1737	7.46	69.08
5413	Architectural, Engineering, and Related Services	1025	7.19	76.27
2389	Other Specialty Trade Contractors	950	5.93	82.20
2372	Land Subdivision	132	3.91	86.11
3323	Architectural and Structural Metals Manufacturing	52	2.72	88.84
2383	Building Finishing Contractors	675	1.52	90.36
2123	Nonmetallic Mineral Mining and Quarrying	5	1.38	91.74
3273	Cement and Concrete Product Manufacturing	51	0.85	92.59
7121	Museums, Historical Sites, and Similar Institutions	56	0.72	93.32
4233	Lumber and Other Construction Materials Merchant Wholesalers	137	0.65	93.96
2379	Other Heavy and Civil Engineering Construction	31	0.59	94.56
5617	Services to Buildings and Dwellings	616	0.54	95.10
4842	Specialized Freight Trucking	78	0.39	95.49
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	67	0.35	95.84
6113	Colleges, Universities, and Professional Schools	50	0.27	96.11
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	7	0.26	96.37
3272	Glass and Glass Product Manufacturing	11	0.24	96.62
8133	Social Advocacy Organizations	113	0.23	96.85
5418	Advertising, Public Relations, and Related Services	91	0.22	97.07
5629	Remediation and Other Waste Management Services	40	0.21	97.27
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	104	0.20	97.47
5311	Lessors of Real Estate	851	0.19	97.65
5121	Motion Picture and Video Industries	24	0.18	97.83
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	120	0.18	98.01
2361	Residential Building Construction	478	0.15	98.16
3231	Printing and Related Support Activities	211	0.13	98.29
4889	Other Support Activities for Transportation	367	0.13	98.42
8112	Electronic and Precision Equipment Repair and Maintenance	89	0.13	98.54
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	11	0.12	98.66
3279	Other Nonmetallic Mineral Product Manufacturing	7	0.12	98.78
5416	Management, Scientific, and Technical Consulting Services	67	0.10	98.88

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
3339	Other General Purpose Machinery Manufacturing	14	0.10	98.98
3399	Other Miscellaneous Manufacturing	219	0.10	99.08
3219	Other Wood Product Manufacturing	43	0.10	99.18
7115	Independent Artists, Writers, and Performers	365	0.09	99.27
3315	Foundries	3	0.09	99.36
2371	Utility System Construction	17	0.09	99.44
5313	Activities Related to Real Estate	14	0.07	99.52
3342	Communications Equipment Manufacturing	9	0.07	99.59
5415	Computer Systems Design and Related Services	395	0.06	99.65
8139	Business, Professional, Labor, Political, and Similar Organizations	472	0.06	99.70
4232	Furniture and Home Furnishing Merchant Wholesalers	60	0.05	99.76
5622	Waste Treatment and Disposal	10	0.05	99.81
8134	Civic and Social Organizations	887	0.05	99.86
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	69	0.05	99.91
3311	Iron and Steel Mills and Ferroalloy Manufacturing	9	0.05	99.96
5112	Software Publishers	64	0.04	100.00

Source: See Table 3.1. Notes: (1) The dollar-based industry weight and cumulative industry weight are expressed as percentages; (2) Cumulative percentages do not always sum to 100 because a very small number of NAICS codes identified as being in the study universe were not associated with establishments that had a presence in the San Antonio market area.

Table 3.2. Architecture & Engineering—Number of Establishments and Industry Weight, by NAICS Code

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
5413	Architectural, Engineering, and Related Services	1098	59.23	59.23
2372	Land Subdivision	132	10.88	70.11
5416	Management, Scientific, and Technical Consulting Services	3196	9.46	79.57
2381	Foundation, Structure, and Building Exterior Contractors	538	5.41	84.97
2382	Building Equipment Contractors	1725	4.55	89.52
2383	Building Finishing Contractors	675	3.62	93.14
2362	Nonresidential Building Construction	473	1.67	94.81
5629	Remediation and Other Waste Management Services	7	0.57	95.38
3323	Architectural and Structural Metals Manufacturing	27	0.56	95.94
3273	Cement and Concrete Product Manufacturing	30	0.55	96.49
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	47	0.51	97.00
2389	Other Specialty Trade Contractors	950	0.47	97.48
7115	Independent Artists, Writers, and Performers	365	0.39	97.87
5417	Scientific Research and Development Services	60	0.33	98.20
3339	Other General Purpose Machinery Manufacturing	14	0.25	98.46
5617	Services to Buildings and Dwellings	616	0.24	98.70
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	54	0.20	98.90
4422	Home Furnishings Stores	116	0.19	99.08
3219	Other Wood Product Manufacturing	8	0.17	99.26
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	46	0.16	99.42
5418	Advertising, Public Relations, and Related Services	56	0.12	99.54
5414	Specialized Design Services	188	0.08	99.62

Source and Notes: See Table 3.1.

Table 3.3. Professional Services—Number of Establishments and Industry Weight, by NAICS Code

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
6241	Individual and Family Services	764	20.98	20.98
5241	Insurance Carriers	141	11.96	32.94
5418	Advertising, Public Relations, and Related Services	147	5.20	38.14
8134	Civic and Social Organizations	887	5.19	43.33
6211	Offices of Physicians	2580	4.94	48.26
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	614	4.77	53.04
8133	Social Advocacy Organizations	113	4.50	57.54
5416	Management, Scientific, and Technical Consulting Services	3462	4.25	61.79
2381	Foundation, Structure, and Building Exterior Contractors	535	3.62	65.41
8132	Grantmaking and Giving Services	40	3.49	68.90
5221	Depository Credit Intermediation	327	2.88	71.79
6242	Community Food and Housing, and Emergency and Other Relief Services	11	2.43	74.22
7121	Museums, Historical Sites, and Similar Institutions	56	2.31	76.52
5242	Agencies, Brokerages, and Other Insurance Related Activities	36	2.13	78.65
2382	Building Equipment Contractors	1725	1.91	80.56
7111	Performing Arts Companies	159	1.73	82.29
5413	Architectural, Engineering, and Related Services	545	1.69	83.98
2372	Land Subdivision	132	1.38	85.36
2383	Building Finishing Contractors	596	1.29	86.64
7139	Other Amusement and Recreation Industries	645	1.05	87.69
4232	Furniture and Home Furnishing Merchant Wholesalers	60	1.02	88.71
6116	Other Schools and Instruction	421	0.97	89.69
8139	Business, Professional, Labor, Political, and Similar Organizations	129	0.85	90.54
5619	Other Support Services	16	0.84	91.38
2389	Other Specialty Trade Contractors	950	0.70	92.08
7113	Promoters of Performing Arts, Sports, and Similar Events	18	0.65	92.73
5622	Waste Treatment and Disposal	10	0.57	93.30
7115	Independent Artists, Writers, and Performers	365	0.54	93.85
4233	Lumber and Other Construction Materials Merchant Wholesalers	80	0.47	94.32
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	144	0.44	94.76
5419	Other Professional, Scientific, and Technical Services	295	0.39	95.14
5151	Radio and Television Broadcasting	14	0.34	95.48
5223	Activities Related to Credit Intermediation	105	0.31	95.79
5617	Services to Buildings and Dwellings	1102	0.30	96.09
3231	Printing and Related Support Activities	211	0.28	96.37
6117	Educational Support Services	38	0.28	96.65
5239	Other Financial Investment Activities	83	0.26	96.91
5112	Software Publishers	64	0.24	97.15
8131	Religious Organizations	1036	0.23	97.38
5411	Legal Services	2066	0.22	97.60
5417	Scientific Research and Development Services	60	0.20	97.80

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
5313	Activities Related to Real Estate	78	0.20	98.00
6244	Child Day Care Services	635	0.19	98.19
5414	Specialized Design Services	188	0.17	98.36
6239	Other Residential Care Facilities	72	0.15	98.50
6215	Medical and Diagnostic Laboratories	77	0.13	98.63
4532	Office Supplies, Stationery, and Gift Stores	49	0.12	98.75
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	104	0.12	98.87
6113	Colleges, Universities, and Professional Schools	50	0.10	98.97
5415	Computer Systems Design and Related Services	395	0.10	99.06
6221	General Medical and Surgical Hospitals	87	0.09	99.16
6212	Offices of Dentists	1033	0.09	99.25
6213	Offices of Other Health Practitioners	133	0.09	99.33
4422	Home Furnishings Stores	116	0.09	99.42
2371	Utility System Construction	17	0.08	99.50
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	35	0.06	99.55
5616	Investigation and Security Services	103	0.05	99.61
6111	Elementary and Secondary Schools	500	0.05	99.66
7131	Amusement Parks and Arcades	19	0.05	99.71

Source and Notes: See Table 3.1.

Table 3.4. Other Services—Number of Establishments and Industry Weight, by NAICS Code

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
5613	Employment Services	224	20.94	20.94
8139	Business, Professional, Labor, Political, and Similar Organizations	248	9.25	30.19
5617	Services to Buildings and Dwellings	1276	9.22	39.41
5415	Computer Systems Design and Related Services	593	7.08	46.49
5616	Investigation and Security Services	103	7.07	53.56
2382	Building Equipment Contractors	1737	6.14	59.70
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	47	5.65	65.35
7223	Special Food Services	162	3.50	68.85
5416	Management, Scientific, and Technical Consulting Services	3055	2.70	71.55
6241	Individual and Family Services	584	2.33	73.88
5622	Waste Treatment and Disposal	10	2.27	76.15
8134	Civic and Social Organizations	887	2.01	78.16
2389	Other Specialty Trade Contractors	96	1.81	79.97
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	104	1.72	81.69
6216	Home Health Care Services	206	1.56	83.25
5413	Architectural, Engineering, and Related Services	841	1.48	84.74
4481	Clothing Stores	449	1.02	85.76
3339	Other General Purpose Machinery Manufacturing	1	1.00	86.76
4855	Charter Bus Industry	9	0.93	87.69
7121	Museums, Historical Sites, and Similar Institutions	6	0.93	88.62
2362	Nonresidential Building Construction	473	0.88	89.50
8123	Drycleaning and Laundry Services	5	0.80	90.30
5615	Travel Arrangement and Reservation Services	208	0.79	91.10
8133	Social Advocacy Organizations	96	0.79	91.89
5112	Software Publishers	64	0.68	92.57
2381	Foundation, Structure, and Building Exterior Contractors	190	0.66	93.22
5418	Advertising, Public Relations, and Related Services	147	0.55	93.78
4842	Specialized Freight Trucking	45	0.52	94.30
7115	Independent Artists, Writers, and Performers	365	0.52	94.83
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	283	0.52	95.35
6113	Colleges, Universities, and Professional Schools	50	0.38	95.73
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	6	0.36	96.09
4422	Home Furnishings Stores	116	0.30	96.39
5419	Other Professional, Scientific, and Technical Services	2819	0.29	96.68
8129	Other Personal Services	32	0.24	96.92
5414	Specialized Design Services	188	0.22	97.14
5321	Automotive Equipment Rental and Leasing	67	0.21	97.35
4541	Electronic Shopping and Mail-Order Houses	59	0.20	97.55
5121	Motion Picture and Video Industries	104	0.17	97.73
5172	Wireless Telecommunications Carriers (except Satellite)	129	0.17	97.89
5111	Newspaper, Periodical, Book, and Directory Publishers	26	0.16	98.06
3343	Audio and Video Equipment Manufacturing	9	0.16	98.21

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
4244	Grocery and Related Product Merchant Wholesalers	65	0.16	98.37
4239	Miscellaneous Durable Goods Merchant Wholesalers	43	0.15	98.52
6244	Child Day Care Services	635	0.15	98.67
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	96	0.14	98.81
3359	Other Electrical Equipment and Component Manufacturing	33	0.12	98.93
7111	Performing Arts Companies	5	0.12	99.05
7113	Promoters of Performing Arts, Sports, and Similar Events	18	0.10	99.15
4853	Taxi and Limousine Service	19	0.09	99.24
4461	Health and Personal Care Stores	49	0.08	99.32
8111	Automotive Repair and Maintenance	118	0.08	99.40
6117	Educational Support Services	38	0.08	99.48
6213	Offices of Other Health Practitioners	133	0.08	99.56
7112	Spectator Sports	14	0.08	99.64

Source and Notes: See Table 3.1.

Table 3.5. Goods & Supplies—Number of Establishments and Industry Weight, by NAICS Code

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
4411	Automobile Dealers	539	11.73	11.73
4247	Petroleum and Petroleum Products Merchant Wholesalers	75	10.31	22.04
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	307	8.77	30.82
5415	Computer Systems Design and Related Services	593	8.01	38.83
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	162	6.32	45.15
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	423	6.16	51.31
2123	Nonmetallic Mineral Mining and Quarrying	4	4.84	56.15
5172	Wireless Telecommunications Carriers (except Satellite)	129	3.65	59.80
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	201	3.42	63.22
4532	Office Supplies, Stationery, and Gift Stores	49	3.26	66.48
4413	Automotive Parts, Accessories, and Tire Stores	379	3.19	69.67
4239	Miscellaneous Durable Goods Merchant Wholesalers	263	2.42	72.09
5179	Other Telecommunications	67	2.32	74.41
3342	Communications Equipment Manufacturing	19	2.12	76.53
5413	Architectural, Engineering, and Related Services	545	1.72	78.26
2382	Building Equipment Contractors	1737	1.53	79.78
3364	Aerospace Product and Parts Manufacturing	19	1.50	81.28
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	109	1.26	82.55
3341	Computer and Peripheral Equipment Manufacturing	17	1.26	83.80
5112	Software Publishers	64	1.11	84.91
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	32	0.97	85.88
3339	Other General Purpose Machinery Manufacturing	15	0.84	86.72
4232	Furniture and Home Furnishing Merchant Wholesalers	60	0.83	87.55
3241	Petroleum and Coal Products Manufacturing	29	0.81	88.36
3343	Audio and Video Equipment Manufacturing	9	0.75	89.11
5418	Advertising, Public Relations, and Related Services	110	0.59	89.70
4241	Paper and Paper Product Merchant Wholesalers	25	0.57	90.26
8111	Automotive Repair and Maintenance	507	0.49	90.75
3399	Other Miscellaneous Manufacturing	246	0.42	91.17
5111	Newspaper, Periodical, Book, and Directory Publishers	76	0.41	91.58
4441	Building Material and Supplies Dealers	197	0.41	91.99
2362	Nonresidential Building Construction	473	0.39	92.38
5321	Automotive Equipment Rental and Leasing	74	0.39	92.77
3361	Motor Vehicle Manufacturing	7	0.35	93.12
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	67	0.34	93.47
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	16	0.32	93.79
5416	Management, Scientific, and Technical Consulting Services	2176	0.31	94.10
4233	Lumber and Other Construction Materials Merchant Wholesalers	163	0.30	94.40
3261	Plastics Product Manufacturing	27	0.30	94.69

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
5419	Other Professional, Scientific, and Technical Services	3074	0.27	94.96
3231	Printing and Related Support Activities	211	0.23	95.20
5616	Investigation and Security Services	191	0.22	95.42
4511	Sporting Goods, Hobby, and Musical Instrument Stores	265	0.22	95.64
4246	Chemical and Allied Products Merchant Wholesalers	59	0.21	95.85
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	108	0.21	96.07
4242	Drugs and Druggists' Sundries Merchant Wholesalers	35	0.19	96.26
4541	Electronic Shopping and Mail-Order Houses	59	0.18	96.44
5629	Remediation and Other Waste Management Services	33	0.18	96.62
3363	Motor Vehicle Parts Manufacturing	20	0.16	96.78
3333	Commercial and Service Industry Machinery Manufacturing	37	0.16	96.94
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	40	0.16	97.10
4842	Specialized Freight Trucking	78	0.15	97.26
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	4	0.15	97.41
3331	Agriculture, Construction, and Mining Machinery Manufacturing	17	0.15	97.56
4512	Book Stores and News Dealers	60	0.14	97.70
4412	Other Motor Vehicle Dealers	164	0.14	97.84
5617	Services to Buildings and Dwellings	616	0.14	97.98
3255	Paint, Coating, and Adhesive Manufacturing	15	0.12	98.10
5621	Waste Collection	6	0.12	98.23
3254	Pharmaceutical and Medicine Manufacturing	25	0.12	98.35
2371	Utility System Construction	17	0.11	98.46
3311	Iron and Steel Mills and Ferroalloy Manufacturing	9	0.11	98.57
6244	Child Day Care Services	635	0.10	98.67
3312	Steel Product Manufacturing from Purchased Steel	4	0.10	98.77
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	332	0.09	98.86
8112	Electronic and Precision Equipment Repair and Maintenance	89	0.09	98.95
3359	Other Electrical Equipment and Component Manufacturing	33	0.09	99.03
3259	Other Chemical Product and Preparation Manufacturing	7	0.08	99.12
5121	Motion Picture and Video Industries	86	0.07	99.19
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	1	0.07	99.26
8123	Drycleaning and Laundry Services	5	0.07	99.33
3351	Electric Lighting Equipment Manufacturing	6	0.06	99.39
5411	Legal Services	2066	0.06	99.45
3326	Spring and Wire Product Manufacturing	5	0.06	99.50
2389	Other Specialty Trade Contractors	854	0.05	99.56
3372	Office Furniture (including Fixtures) Manufacturing	3	0.05	99.60
3391	Medical Equipment and Supplies Manufacturing	16	0.05	99.65
5611	Office Administrative Services	1151	0.04	99.69
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	3	0.04	99.73

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Cumulative Industry Weight
1152	Support Activities for Animal Production	79	0.04	99.77
6241	Individual and Family Services	584	0.04	99.81
2383	Building Finishing Contractors	79	0.04	99.85

Source and Notes: See Table 3.1.

2. Identify Listed M/WBEs

While extensive, Dun & Bradstreet does not sufficiently identify all businesses owned by minorities or women. Although many such businesses *are* correctly identified in Dun & Bradstreet, experience has demonstrated that many are also missed. For this reason, several additional steps were required to identify the appropriate percentage of M/WBEs in the relevant market.

First, NERA completed an intensive regional search for information on minority-owned and woman-owned businesses in San Antonio and surrounding counties. Beyond the information already in Dun & Bradstreet/Hoover's, NERA collected lists of M/WBEs from other public and private entities. Specifically, directories were included from: South Central Texas Regional Certification Agency, Bexar County, Black Owner Business Network, Centralized Master Bidders list, DiversityBusiness.com, Diversity Information Resources, Edwards Aquifer Authority, Minority Business Development Agency, San Antonio River Authority, Small Business Administration, Texas DOT/UCP, U.S. Women's Chamber of Commerce, and Women's Business Enterprise Alliance.[50]

Tables 3.6 through 3.10 show the listed M/WBEs in Construction, A&E, Professional Services, Other Services and Goods & Supplies, respectively. If the listed M/WBEs identified in Tables 3.6 through 3.10 are in fact *all* M/WBEs and are the *only* M/WBEs among all of the establishments in the relevant market identified in Tables 3.1 through 3.5, then an estimate of "listed" M/WBE availability is simply the number of listed M/WBEs divided by the total number of establishments in the relevant market. However, as we shall see below, neither of these two conditions holds true in practice and this is therefore *not* an appropriate method for measuring M/WBE availability.

There are two reasons for this. First, it is likely that some proportion of the M/WBEs listed in the tables is not actually minority-owned or women-owned. Second, it is likely that there are additional "unlisted" M/WBEs among all of the establishments included in Tables 3.1 through 3.5. Such businesses do not appear in any of the directories we gathered and are therefore not included as M/WBEs in these tables. Additional steps are required to test these two conditions

[50] We also obtained information from certain entities that was duplicative of either Dun & Bradstreet or one or more of the other sources listed above. These entities are listed below in Appendix C. We were unable to obtain relevant lists or directories from a number of entities. The reasons for this include: (1) the entity did not have a list or the entity's list did not include race and sex information; (2) the entity was unresponsive to repeated attempts at contacts; or (3) the entity simply declined to provide us the list. These entities, as well, are listed in Appendix A.

and to arrive at a more accurate representation of M/WBE availability within the Baseline Business Universe. We discuss these steps below in Sections 3.a and 3.b.

Table 3.6. Construction—Number of Listed M/WBE Establishments and Industry Weight (Dollars Awarded), by NAICS Code

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
2362	Nonresidential Building Construction	147	36.70	36.70
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	52	17.14	53.84
2381	Foundation, Structure, and Building Exterior Contractors	102	7.77	61.62
2382	Building Equipment Contractors	209	7.46	69.08
5413	Architectural, Engineering, and Related Services	219	7.19	76.27
2389	Other Specialty Trade Contractors	103	5.93	82.20
2372	Land Subdivision	4	3.91	86.11
3323	Architectural and Structural Metals Manufacturing	9	2.72	88.84
2383	Building Finishing Contractors	94	1.52	90.36
2123	Nonmetallic Mineral Mining and Quarrying	0	1.38	91.74
3273	Cement and Concrete Product Manufacturing	10	0.85	92.59
7121	Museums, Historical Sites, and Similar Institutions	1	0.72	93.32
4233	Lumber and Other Construction Materials Merchant Wholesalers	16	0.65	93.96
2379	Other Heavy and Civil Engineering Construction	4	0.59	94.56
5617	Services to Buildings and Dwellings	56	0.54	95.10
4842	Specialized Freight Trucking	21	0.39	95.49
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	9	0.35	95.84
6113	Colleges, Universities, and Professional Schools	1	0.27	96.11
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	2	0.26	96.37
3272	Glass and Glass Product Manufacturing	3	0.24	96.62
8133	Social Advocacy Organizations	1	0.23	96.85
5418	Advertising, Public Relations, and Related Services	35	0.22	97.07
5629	Remediation and Other Waste Management Services	7	0.21	97.27
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	19	0.20	97.47
5311	Lessors of Real Estate	46	0.19	97.65
5121	Motion Picture and Video Industries	2	0.18	97.83
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	13	0.18	98.01
2361	Residential Building Construction	39	0.15	98.16
3231	Printing and Related Support Activities	54	0.13	98.29
4889	Other Support Activities for Transportation	10	0.13	98.42
8112	Electronic and Precision Equipment Repair and Maintenance	23	0.13	98.54
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5	0.12	98.66
3279	Other Nonmetallic Mineral Product Manufacturing	1	0.12	98.78
5416	Management, Scientific, and Technical Consulting Services	18	0.10	98.88

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
3339	Other General Purpose Machinery Manufacturing	2	0.10	98.98
3399	Other Miscellaneous Manufacturing	29	0.10	99.08
3219	Other Wood Product Manufacturing	6	0.10	99.18
7115	Independent Artists, Writers, and Performers	50	0.09	99.27
3315	Foundries	0	0.09	99.36
2371	Utility System Construction	3	0.09	99.44
5313	Activities Related to Real Estate	1	0.07	99.52
3342	Communications Equipment Manufacturing	2	0.07	99.59
5415	Computer Systems Design and Related Services	106	0.06	99.65
8139	Business, Professional, Labor, Political, and Similar Organizations	0	0.06	99.70
4232	Furniture and Home Furnishing Merchant Wholesalers	15	0.05	99.76
5622	Waste Treatment and Disposal	1	0.05	99.81
8134	Civic and Social Organizations	3	0.05	99.86
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	9	0.05	99.91
3311	Iron and Steel Mills and Ferroalloy Manufacturing	1	0.05	99.96
5112	Software Publishers	4	0.04	100.00

Source and Notes: See Table 3.1.

Table 3.7. Architecture & Engineering—Number of Listed M/WBE Establishments and Industry Weight (Dollars Awarded), by NAICS Code

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
5413	Architectural, Engineering, and Related Services	240	59.23	59.23
2372	Land Subdivision	4	10.88	70.11
5416	Management, Scientific, and Technical Consulting Services	325	9.46	79.57
2381	Foundation, Structure, and Building Exterior Contractors	95	5.41	84.97
2382	Building Equipment Contractors	204	4.55	89.52
2383	Building Finishing Contractors	94	3.62	93.14
2362	Nonresidential Building Construction	147	1.67	94.81
5629	Remediation and Other Waste Management Services	3	0.57	95.38
3323	Architectural and Structural Metals Manufacturing	7	0.56	95.94
3273	Cement and Concrete Product Manufacturing	9	0.55	96.49
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	12	0.51	97.00
2389	Other Specialty Trade Contractors	103	0.47	97.48
7115	Independent Artists, Writers, and Performers	50	0.39	97.87
5417	Scientific Research and Development Services	11	0.33	98.20
3339	Other General Purpose Machinery Manufacturing	2	0.25	98.46
5617	Services to Buildings and Dwellings	56	0.24	98.70
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	9	0.20	98.90
4422	Home Furnishings Stores	17	0.19	99.08
3219	Other Wood Product Manufacturing	3	0.17	99.26
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	3	0.16	99.42
5418	Advertising, Public Relations, and Related Services	19	0.12	99.54
5414	Specialized Design Services	59	0.08	99.62

Source and Notes: See Table 3.1.

Table 3.8. Professional Services—Number of Listed M/WBE Establishments and Industry Weight (Dollars Awarded), by NAICS Code

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
6241	Individual and Family Services	22	20.98	20.98
5241	Insurance Carriers	13	11.96	32.94
5418	Advertising, Public Relations, and Related Services	54	5.20	38.14
8134	Civic and Social Organizations	3	5.19	43.33
6211	Offices of Physicians	184	4.94	48.26
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	97	4.77	53.04
8133	Social Advocacy Organizations	1	4.50	57.54
5416	Management, Scientific, and Technical Consulting Services	369	4.25	61.79
2381	Foundation, Structure, and Building Exterior Contractors	95	3.62	65.41
8132	Grantmaking and Giving Services	0	3.49	68.90
5221	Depository Credit Intermediation	3	2.88	71.79
6242	Community Food and Housing, and Emergency and Other Relief Services	1	2.43	74.22
7121	Museums, Historical Sites, and Similar Institutions	1	2.31	76.52
5242	Agencies, Brokerages, and Other Insurance Related Activities	8	2.13	78.65
2382	Building Equipment Contractors	204	1.91	80.56
7111	Performing Arts Companies	23	1.73	82.29
5413	Architectural, Engineering, and Related Services	135	1.69	83.98
2372	Land Subdivision	4	1.38	85.36
2383	Building Finishing Contractors	81	1.29	86.64
7139	Other Amusement and Recreation Industries	38	1.05	87.69
4232	Furniture and Home Furnishing Merchant Wholesalers	15	1.02	88.71
6116	Other Schools and Instruction	71	0.97	89.69
8139	Business, Professional, Labor, Political, and Similar Organizations	1	0.85	90.54
5619	Other Support Services	5	0.84	91.38
2389	Other Specialty Trade Contractors	103	0.70	92.08
7113	Promoters of Performing Arts, Sports, and Similar Events	1	0.65	92.73
5622	Waste Treatment and Disposal	1	0.57	93.30
7115	Independent Artists, Writers, and Performers	50	0.54	93.85
4233	Lumber and Other Construction Materials Merchant Wholesalers	7	0.47	94.32
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	24	0.44	94.76
5419	Other Professional, Scientific, and Technical Services	30	0.39	95.14
5151	Radio and Television Broadcasting	0	0.34	95.48
5223	Activities Related to Credit Intermediation	11	0.31	95.79
5617	Services to Buildings and Dwellings	172	0.30	96.09
3231	Printing and Related Support Activities	54	0.28	96.37
6117	Educational Support Services	11	0.28	96.65
5239	Other Financial Investment Activities	1	0.26	96.91
5112	Software Publishers	4	0.24	97.15

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
8131	Religious Organizations	2	0.23	97.38
5411	Legal Services	125	0.22	97.60
5417	Scientific Research and Development Services	11	0.20	97.80
5313	Activities Related to Real Estate	11	0.20	98.00
6244	Child Day Care Services	121	0.19	98.19
5414	Specialized Design Services	59	0.17	98.36
6239	Other Residential Care Facilities	0	0.15	98.50
6215	Medical and Diagnostic Laboratories	5	0.13	98.63
4532	Office Supplies, Stationery, and Gift Stores	9	0.12	98.75
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	19	0.12	98.87
6113	Colleges, Universities, and Professional Schools	1	0.10	98.97
5415	Computer Systems Design and Related Services	106	0.10	99.06
6221	General Medical and Surgical Hospitals	10	0.09	99.16
6212	Offices of Dentists	66	0.09	99.25
6213	Offices of Other Health Practitioners	23	0.09	99.33
4422	Home Furnishings Stores	17	0.09	99.42
2371	Utility System Construction	3	0.08	99.50
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	4	0.06	99.55
5616	Investigation and Security Services	19	0.05	99.61
6111	Elementary and Secondary Schools	4	0.05	99.66
7131	Amusement Parks and Arcades	1	0.05	99.71

Source and Notes: See Table 3.1.

Table 3.9. Other Services—Number of Listed M/WBE Establishments and Industry Weight (Dollars Awarded), by NAICS Code

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
5613	Employment Services	71	20.94	20.94
8139	Business, Professional, Labor, Political, and Similar Organizations	2	9.25	30.19
5617	Services to Buildings and Dwellings	188	9.22	39.41
5415	Computer Systems Design and Related Services	142	7.08	46.49
5616	Investigation and Security Services	19	7.07	53.56
2382	Building Equipment Contractors	209	6.14	59.70
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	12	5.65	65.35
7223	Special Food Services	33	3.50	68.85
5416	Management, Scientific, and Technical Consulting Services	300	2.70	71.55
6241	Individual and Family Services	20	2.33	73.88
5622	Waste Treatment and Disposal	1	2.27	76.15
8134	Civic and Social Organizations	3	2.01	78.16
2389	Other Specialty Trade Contractors	20	1.81	79.97
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	19	1.72	81.69
6216	Home Health Care Services	38	1.56	83.25
5413	Architectural, Engineering, and Related Services	158	1.48	84.74
4481	Clothing Stores	31	1.02	85.76
3339	Other General Purpose Machinery Manufacturing	0	1.00	86.76
4855	Charter Bus Industry	3	0.93	87.69
7121	Museums, Historical Sites, and Similar Institutions	0	0.93	88.62
2362	Nonresidential Building Construction	147	0.88	89.50
8123	Drycleaning and Laundry Services	1	0.80	90.30
5615	Travel Arrangement and Reservation Services	21	0.79	91.10
8133	Social Advocacy Organizations	1	0.79	91.89
5112	Software Publishers	4	0.68	92.57
2381	Foundation, Structure, and Building Exterior Contractors	46	0.66	93.22
5418	Advertising, Public Relations, and Related Services	54	0.55	93.78
4842	Specialized Freight Trucking	10	0.52	94.30
7115	Independent Artists, Writers, and Performers	50	0.52	94.83
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	49	0.52	95.35
6113	Colleges, Universities, and Professional Schools	1	0.38	95.73
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	0	0.36	96.09
4422	Home Furnishings Stores	17	0.30	96.39
5419	Other Professional, Scientific, and Technical Services	143	0.29	96.68
8129	Other Personal Services	2	0.24	96.92
5414	Specialized Design Services	59	0.22	97.14
5321	Automotive Equipment Rental and Leasing	0	0.21	97.35
4541	Electronic Shopping and Mail-Order Houses	15	0.20	97.55
5121	Motion Picture and Video Industries	18	0.17	97.73

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
5172	Wireless Telecommunications Carriers (except Satellite)	4	0.17	97.89
5111	Newspaper, Periodical, Book, and Directory Publishers	1	0.16	98.06
3343	Audio and Video Equipment Manufacturing	0	0.16	98.21
4244	Grocery and Related Product Merchant Wholesalers	12	0.16	98.37
4239	Miscellaneous Durable Goods Merchant Wholesalers	4	0.15	98.52
6244	Child Day Care Services	121	0.15	98.67
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	15	0.14	98.81
3359	Other Electrical Equipment and Component Manufacturing	1	0.12	98.93
7111	Performing Arts Companies	0	0.12	99.05
7113	Promoters of Performing Arts, Sports, and Similar Events	1	0.10	99.15
4853	Taxi and Limousine Service	4	0.09	99.24
4461	Health and Personal Care Stores	17	0.08	99.32
8111	Automotive Repair and Maintenance	4	0.08	99.40
6117	Educational Support Services	11	0.08	99.48
6213	Offices of Other Health Practitioners	23	0.08	99.56
7112	Spectator Sports	0	0.08	99.64

Source and Notes: See Table 3.1.

Table 3.10. Goods & Supplies—Number of Listed M/WBE Establishments and Industry Weight (Dollars Awarded), by NAICS Code

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
4411	Automobile Dealers	47	11.73	11.73
4247	Petroleum and Petroleum Products Merchant Wholesalers	4	10.31	22.04
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	67	8.77	30.82
5415	Computer Systems Design and Related Services	142	8.01	38.83
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	42	6.32	45.15
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	73	6.16	51.31
2123	Nonmetallic Mineral Mining and Quarrying	0	4.84	56.15
5172	Wireless Telecommunications Carriers (except Satellite)	4	3.65	59.80
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	32	3.42	63.22
4532	Office Supplies, Stationery, and Gift Stores	9	3.26	66.48
4413	Automotive Parts, Accessories, and Tire Stores	18	3.19	69.67
4239	Miscellaneous Durable Goods Merchant Wholesalers	18	2.42	72.09
5179	Other Telecommunications	10	2.32	74.41
3342	Communications Equipment Manufacturing	2	2.12	76.53
5413	Architectural, Engineering, and Related Services	135	1.72	78.26
2382	Building Equipment Contractors	209	1.53	79.78
3364	Aerospace Product and Parts Manufacturing	4	1.50	81.28
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	4	1.26	82.55
3341	Computer and Peripheral Equipment Manufacturing	1	1.26	83.80
5112	Software Publishers	4	1.11	84.91
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	9	0.97	85.88
3339	Other General Purpose Machinery Manufacturing	2	0.84	86.72
4232	Furniture and Home Furnishing Merchant Wholesalers	15	0.83	87.55
3241	Petroleum and Coal Products Manufacturing	0	0.81	88.36
3343	Audio and Video Equipment Manufacturing	0	0.75	89.11
5418	Advertising, Public Relations, and Related Services	40	0.59	89.70
4241	Paper and Paper Product Merchant Wholesalers	1	0.57	90.26
8111	Automotive Repair and Maintenance	72	0.49	90.75
3399	Other Miscellaneous Manufacturing	30	0.42	91.17
5111	Newspaper, Periodical, Book, and Directory Publishers	13	0.41	91.58
4441	Building Material and Supplies Dealers	17	0.41	91.99
2362	Nonresidential Building Construction	147	0.39	92.38
5321	Automotive Equipment Rental and Leasing	0	0.39	92.77
3361	Motor Vehicle Manufacturing	0	0.35	93.12
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	9	0.34	93.47
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	0	0.32	93.79

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
5416	Management, Scientific, and Technical Consulting Services	163	0.31	94.10
4233	Lumber and Other Construction Materials Merchant Wholesalers	19	0.30	94.40
3261	Plastics Product Manufacturing	3	0.30	94.69
5419	Other Professional, Scientific, and Technical Services	164	0.27	94.96
3231	Printing and Related Support Activities	54	0.23	95.20
5616	Investigation and Security Services	41	0.22	95.42
4511	Sporting Goods, Hobby, and Musical Instrument Stores	8	0.22	95.64
4246	Chemical and Allied Products Merchant Wholesalers	8	0.21	95.85
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	16	0.21	96.07
4242	Drugs and Druggists' Sundries Merchant Wholesalers	11	0.19	96.26
4541	Electronic Shopping and Mail-Order Houses	15	0.18	96.44
5629	Remediation and Other Waste Management Services	4	0.18	96.62
3363	Motor Vehicle Parts Manufacturing	2	0.16	96.78
3333	Commercial and Service Industry Machinery Manufacturing	5	0.16	96.94
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	11	0.16	97.10
4842	Specialized Freight Trucking	21	0.15	97.26
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	3	0.15	97.41
3331	Agriculture, Construction, and Mining Machinery Manufacturing	2	0.15	97.56
4512	Book Stores and News Dealers	5	0.14	97.70
4412	Other Motor Vehicle Dealers	6	0.14	97.84
5617	Services to Buildings and Dwellings	56	0.14	97.98
3255	Paint, Coating, and Adhesive Manufacturing	2	0.12	98.10
5621	Waste Collection	3	0.12	98.23
3254	Pharmaceutical and Medicine Manufacturing	5	0.12	98.35
2371	Utility System Construction	3	0.11	98.46
3311	Iron and Steel Mills and Ferroalloy Manufacturing	1	0.11	98.57
6244	Child Day Care Services	121	0.10	98.67
3312	Steel Product Manufacturing from Purchased Steel	2	0.10	98.77
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	43	0.09	98.86
8112	Electronic and Precision Equipment Repair and Maintenance	23	0.09	98.95
3359	Other Electrical Equipment and Component Manufacturing	1	0.09	99.03
3259	Other Chemical Product and Preparation Manufacturing	1	0.08	99.12
5121	Motion Picture and Video Industries	1	0.07	99.19
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	0	0.07	99.26
8123	Drycleaning and Laundry Services	1	0.07	99.33
3351	Electric Lighting Equipment Manufacturing	2	0.06	99.39
5411	Legal Services	125	0.06	99.45
3326	Spring and Wire Product Manufacturing	3	0.06	99.50

NAICS Industry Group	NAICS Description	Number of Listed M/WBEs	Industry Weight	Cumulative Industry Weight
2389	Other Specialty Trade Contractors	83	0.05	99.56
3372	Office Furniture (including Fixtures) Manufacturing	2	0.05	99.60
3391	Medical Equipment and Supplies Manufacturing	3	0.05	99.65
5611	Office Administrative Services	45	0.04	99.69
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	0	0.04	99.73
1152	Support Activities for Animal Production	18	0.04	99.77
6241	Individual and Family Services	20	0.04	99.81
2383	Building Finishing Contractors	13	0.04	99.85

Source and Notes: See Table 3.1.

3. Verify Listed M/WBEs

a. Introduction

It is likely that the race and gender classifications for businesses from Dun & Bradstreet and the race and gender classifications from M/WBE directories is not correct in all instances. Phenomena such as ownership changes, associate or mentor status, recording errors, or even misrepresentation, will lead to businesses being listed as M/WBEs in a particular directory even though they may not actually be owned by such entities. Other things equal, this type of error would cause our availability estimate to be biased upward from the actual availability number.

The second likelihood that must be addressed is that not all M/WBE businesses are necessarily listed—either in Dun & Bradstreet or in any of the other directories we collected. Such phenomena as geographic relocation, ownership changes, directory compilation errors, fear of stigmatization, and limitations in M/WBE outreach, could all lead to such establishments being unlisted. Other things equal, this type of error would cause our availability estimate to be biased downward from the actual availability number.

In our experience, we have found that both types of bias are not uncommon. For this Study, we corrected for the effect of these biases using statistical sampling procedures. We surveyed a large, stratified random sample of more than 25,000 records drawn from the Baseline Business Universe and measured how often and how they were misclassified (or unclassified) by race and gender status.[51]

Strata were defined according to NAICS industries and listed M/WBE status.[52] In the telephone survey, up to 10 attempts were made to reach each business and speak with an appropriate respondent. Attempts were scheduled for a mix of day and evening, weekdays and weekends, and appointments were scheduled for callbacks when necessary. Of the 26,500 establishments in our sample, 8,258 (31%) were listed M/WBEs and 18,242 (69%) were unclassified by race or gender. Of these 26,500 establishments, however, 9,052 (34%) were excluded as "unable to contact." Exclusions resulted from a variety of reasons including disconnected and wrong phone numbers, duplicate records, and establishments that were no longer in business.[53] Of the remaining 17,448 establishments, 5,542 (32%) were listed M/WBEs and the remaining 11,906 establishments (68%) were unclassified.

The first part of the survey tested whether our sample of listed M/WBEs was correctly classified by race and/or gender. The second part of the survey tested whether the unclassified

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[51] A similar method, with respect to M/WBE establishments, was employed by the Federal Reserve Board to deal with similar problems in designing and implementing the National Survey of Small Business Finances for 1993 and 1998. *See* Haggerty, C., K. Grigorian, R. Harter and J. D. Wolken (2000).

[52] A total of 308 separate industry strata were created based on NAICS code. All strata were then split according to listed M/WBE status to create a total of 616 strata. Generally, listed M/WBEs were sampled at a higher rate than unclassified establishments.

[53] Other reasons included changed ownership, duplicate records, and refusals. Putative M/WBEs were not more likely to be affected by this than putative non-M/WBEs.

establishments (that is, those putatively owned by nonminority males) could all be properly classified as non-M/WBEs. Both elements of the survey are described in more detail below.[54]

b. Survey of Listed M/WBEs

We selected a stratified random sample of 8,258 listed M/WBEs to verify the race and gender status of their owner(s). Of these, 2,716 (33%) were excluded as "unable to contact." Of the remaining 5,542 establishments, we obtained complete interviews from 1,925, for a response rate of 35 percent.

Of the 1,925 establishments interviewed, 230 (11.9%) were actually owned by nonminority males. Misclassification varied by putative race and gender, as shown in Table 3.11. Misclassification was highest among putative Native American-owned establishments, followed by putative Asian/Pacific Islander-owned establishments, then nonminority female-owned establishments, then Hispanic-owned establishments, and finally African American-owned establishments.[55] Misclassification was also observed in 45 percent of NAICS strata, ranging from a high of 100 percent to a low of 4.1 percent, with a median of 19.4 percent and a mean of 28.9 percent.

[54] By "putative," we mean the race and gender that we initially assigned to each firm based on the information provided by the City of San Antonio, SCTRCA, Dun & Bradstreet, our master M/WBE directory, or from other sources.

[55] For this study, "Black" or "African American" refers to an individual having origins in any of the Black racial groups of Africa; "Hispanic" refers to an individual of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race; "Asian" or "Asian/Pacific Islander" refers to an individual having origins in the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands; "Native American" refers to an individual having origins in any of the original peoples of North America or of Hawai'i.

Table 3.11. Listed M/WBE Survey—Amount of Misclassification, by Putative M/WBE Type

Putative Race/Gender	Misclassification (Percentage Nonminority Male)	Misclassification (Percentage Other M/WBE Type)	Percentage Correctly Classified	Number of Businesses Interviewed
African American (either gender)	5.97	7.46	86.57	134
Hispanic (either gender)	9.21	4.79	86.00	771
Asian/Pacific Islander (either gender)	23.38	16.88	59.74	77
Native American (either gender)	48.00	24.00	28.00	25
Nonminority Female	13.20	23.70	63.10	918
All M/WBE Types	11.95	14.75	73.30	1,925

Source: NERA telephone surveys.

Notes: (1) Figures are rounded. Rounding was performed subsequent to any mathematical calculations. (2) Similar calculations, not shown here, were performed within each stratum.

The race and gender status of the listed M/WBEs responding to the survey was changed, if necessary, according to the survey results. For example, if an establishment originally listed as African American-owned was actually nonminority male-owned, then that establishment was counted as nonminority male-owned for purposes of calculating M/WBE availability.

But what about the remaining putative African American-owned establishments that we did not interview? For these businesses, we estimated the race and gender of their ownership based on the amount of misclassification we observed among the putatively African American-owned establishments that we did interview. In this example, our interviews showed that 86.57 percent of these establishments were indeed actually African American-owned, 5.97 percent were actually nonminority male-owned, 2.99 percent were actually nonminority female-owned, 3.73 percent were actually Hispanic-owned, 0.75 percent were actually Native American-owned, and none were Asian/Pacific Islander-owned. Therefore, we assigned each of the remaining putative African American-owned establishments an 86.57 percent probability of being African American-owned, a 5.97 percent probability of being nonminority male-owned, a 2.99 percent probability of being nonminority female-owned, a 3.73 percent probability of being Hispanic-owned, and a 0.75 percent probability of being Native American-owned. We performed this procedure within each sample stratum and for all putative race and gender categories.

4. Verify Putative Non-M/WBEs

a. Survey of Unclassified Businesses

In the same manner as our survey of listed M/WBEs, we also examined unclassified businesses, *i.e.,* any business that was not originally identified as an M/WBE, either in Dun & Bradstreet or in one or more of the other directories, and that would otherwise appear to be a non-M/WBE.

We selected a stratified random sample of 18,242 unclassified businesses. Of these, 6,336 (35%) were excluded as "unable to contact." Of the 11,906 remaining establishments, we obtained 3,560 complete interviews, for a response rate of 30 percent.

In Table 3.12, of the 3,560 establishments interviewed, 2,033 (57.11%) were owned by nonminority males. Clearly, a significant majority of unclassified businesses in the Baseline Business Universe are nonminority male-owned. Nevertheless, the survey results indicate that 42.89 percent of these establishments are *not* nonminority male-owned. Among the latter, the largest group was Hispanic-owned (22.92%), followed by nonminority female-owned (14.61%), with descending size shares accounted for by Asian/Pacific Islander-owned (2.30%), African American-owned (2.05%), and Native American-owned (1.01%). Misclassification was also observed in 86 percent of NAICS strata, ranging from a high of 100 percent to a low of 1.9 percent, with a median of 44.4 percent and a mean of 46.7 percent.

Table 3.12. Unclassified Businesses Survey—By Race and Gender

Verified Race/Gender	Number of Businesses Interviewed	Percentage of Total
Nonminority male	2,033	57.11
Nonminority female	520	14.61
African American (either gender)	73	2.05
Hispanic (either gender)	816	22.92
Asian/Pacific Islander (either gender)	82	2.30
Native American (either gender)	36	1.01
TOTAL	3,560	100.00

Source and Notes: See Table 3.9. Numbers may not add to total due to rounding.

In the same manner as the survey of listed M/WBEs, the race and gender status of unclassified establishments was changed, if necessary, according to the survey results. For example, if an interviewed establishment that was originally unclassified indicated that it was actually nonminority male-owned, then that establishment was counted as nonminority male-owned for purposes of the M/WBE availability calculation. If the establishment indicated it was nonminority female-owned, it was counted as nonminority female, and so on. For unclassified establishments that were not interviewed, we assigned probability values (probability actually nonminority male-owned, probability actually nonminority female-owned, probability actually

African American-owned, *etc.*) based on the interview responses. We again carried out the probability assignment procedure within each stratum.

5. Understanding "Capacity"

As noted in the beginning of this chapter, some observers, primarily opponents of efforts to address discrimination in contracting, have argued that, in order to be accurate, availability estimates must be adjusted for "capacity." These assertions are rarely accompanied by specific suggestions about how such adjustments could be made consistent with professional social science standards. This Study does adjust for certain appropriate characteristics of firms related to capacity (such as industry affiliation, geographic location, owner labor market experience, and educational attainment); however, we are careful to not adjust for capacity factors that are themselves likely to be influenced by discrimination. In our view, all of the "capacity" indicators recommended by program opponents (*e.g.,* firm age, annual individual firm revenues, number of employees, largest contract received, bonding limits) are subject to the impact of discrimination.

Further, the reality is that large, adverse statistical disparities between minority-owned or women-owned businesses and nonminority male-owned businesses have been documented in numerous research studies and reports since *Croson*.[56] Business outcomes, however, can be influenced by multiple factors, and it is important that disparity studies examine the likelihood of whether discrimination is an important contributing factor to observed disparities.

Moreover, terms such as "capacity," "qualifications," and "ability," are not well defined in any statistical sense. Does "capacity" mean the level of annual individual firm revenues, employment size, bonding limits, or number of contracts bid or awarded? Does "qualified" or "able" mean possession of a business license, certain amounts of training, types of work experience, or the number of contracts a firm can perform at a given moment? What mix of business attributes properly reflects "capacity"? Does the meaning of such terms differ from industry to industry, locality to locality, or through time? Where and how might such data be reliably gathered? Even if capacity is well-defined and adequate data are gathered, when measuring the existence of discrimination, the statistical method used should not improperly limit the availability measure by incorporating factors that are themselves impacted by discrimination, such as firm age, annual individual firm revenues, bonding limits, or number of employees.

Consider an extreme example where discrimination has prevented the emergence of any minority owned firms. Suppose that racial discrimination was ingrained in a city's construction market. As a result, few minority construction employees are given the opportunity to gain managerial experience in the business; minorities who do end up starting construction firms are denied the opportunity to work as subcontractors for nonminority prime contractors; and nonminority prime contractors refuse to work with minority firms and put pressure on bonding companies and banks to prevent minority owned construction firms from securing bonding and capital. In this example, discrimination has prevented the emergence of a minority highway construction industry with "capacity." Those M/WBEs that exist at all will be smaller and less experienced

[56] *See* Enchautegui, et al. (1996). More recently, see Wainwright (2012), Wainwright (2010).

and have lower annual individual firm revenues, bonding limits, and employees (*i.e.,* "capacity") because of discrimination than firms that have benefited from the exclusionary system.

Using annual individual firm revenues as the measure of qualifications illustrates the point. If M/WBEs are subject to market area discrimination, their annual individual firm revenues will be smaller than nonminority, male-owned businesses because they will be less successful at obtaining work. Annual individual firm revenues measure the extent to which a firm has succeeded in the market area, perhaps in spite of discrimination—it does not measure the ability to succeed in the absence of discrimination and should not be used to evaluate the effects of discrimination.

Therefore, focusing on the "capacity" of businesses in terms of employment, annual individual firm revenues, bonding limits, number of trucks, and so forth, is simply wrong as a matter of economics because it can obscure the existence of discrimination. A truly "effective" discriminatory system would lead to a finding of no "capacity," and under the "capacity" approach, a finding of no discrimination. Excluding firms from an availability measure based on their "capacity" in a discriminatory market merely affirms the results of discrimination rather than ameliorating them. A capacity requirement could preclude the City of San Antonio from doing anything to rectify its passive participation through public dollars in a clearly discriminatory system. The capacity argument fails to acknowledge that discrimination has obstructed the emergence of "qualified, willing, and able" minority firms. Without such firms, there can be no statistical disparity.

Further, in dynamic business environments, and especially in the construction sector, such "qualifications" or "capacity" can be obtained relatively easily. It is well known that small construction companies can expand rapidly as needs arise by hiring workers and renting equipment, and many general contractors subcontract the majority of a project. Firms grow quickly when demand increases and shrink quickly when demand decreases. Subcontracting is one important source of this elasticity, as has been noted by several academic studies.[57] Other industry sectors, especially in this era of Internet commerce and independent contractors, can also quickly grow or shrink in response to demand.

Finally, even where "capacity"-type factors have been controlled for in statistical analyses, results consistent with business discrimination are still typically observed. For example, large and statistically significant differences in commercial loan denial rates between minority and nonminority firms are evident throughout the country, even when detailed balance sheet and creditworthiness measures are held constant.[58] Similarly, economists using decennial census data have demonstrated that statistically significant disparities in business formation and business owner earnings between minorities and non-minorities remain even after controlling for a host of additional relevant factors, including educational achievement, labor market experience, marital status, disability status, veteran status, interest and dividend income, labor market attachment,

[57] *See* Bourdon and Levitt (1980); *see also* Eccles (1981); *and* Gould (1980).

[58] *See* Wainwright (2008).

industry, geographic location, and local labor market variables such as the unemployment rate, population growth rate, government employment rate, or per capita income.[59]

To summarize, the statistical analysis of the availability of minority firms compared to nonminority firms to examine the existence and effects of discrimination in disparity studies should not adjust for inappropriate "capacity" factors because:

- "Capacity" has been ill-defined; and reliable data for measurement are generally unavailable;
- Small firms, particularly in the construction industry, are highly elastic with regard to ability to perform;
- Many disparity studies have shown that even when "capacity" and "qualifications"-type factors are held constant in statistical analyses, evidence of disparate impact against M/WBE firms persists; and
- Most important, identifiable indicators of "capacity" are themselves impacted by discrimination.

[59] Wainwright (2000).

C. Estimates of M/WBE Availability

Top-level estimates of M/WBE availability appear below in Table 3.13. Two sets of weighted availability measures are provided for each of the five major procurement categories of Construction, Architecture & Engineering, Professional Services, Other Services and Goods & Supplies. The first set is weighted by award dollars for all contracts. The second set is weighted by paid dollars for substantially completed contracts.

Table 3.13. Overall Estimated M/WBE Availability Percentages

	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority	Non-minority Female	M/WBE	Non-M/WBE
OVERALL								
AWARD DOLLARS	2.77	25.22	2.01	1.14	31.15	10.03	41.17	58.83
PAID DOLLARS	2.78	26.67	1.61	1.10	32.15	10.47	42.62	57.38
CONSTRUCTION								
AWARD DOLLARS	1.91	29.76	1.74	0.97	34.38	10.06	44.44	55.56
PAID DOLLARS	1.91	35.60	0.72	0.94	39.17	11.36	50.52	49.48
ARCHITECTURE & ENGINEERING								
AWARD DOLLARS	1.17	15.81	3.05	2.54	22.57	7.98	30.55	69.45
PAID DOLLARS	1.19	15.52	2.46	2.13	21.30	7.47	28.77	71.23
PROFESSIONAL SERVICES								
AWARD DOLLARS	6.34	22.48	0.72	0.19	29.74	9.97	39.70	60.30
PAID DOLLARS	5.63	27.04	0.60	0.19	33.47	11.15	44.62	55.38
OTHER SERVICES								
AWARD DOLLARS	4.00	32.30	2.11	1.12	39.54	15.26	54.80	45.20
PAID DOLLARS	4.45	30.10	2.16	0.92	37.62	15.88	53.51	46.49
GOODS & SUPPLIES								
AWARD DOLLARS	2.01	23.31	4.01	1.35	30.69	11.42	42.10	57.90
PAID DOLLARS	2.14	22.71	4.01	1.32	30.18	10.75	40.93	59.07

Sources: Dun & Bradstreet; M/WBE business directory information compiled by NERA; Master Contract/ Subcontract Database; Master Concessions Database.

Note: Figures are rounded. Rounding was performed subsequent to any mathematical calculations.

Overall M/WBE availability in the Construction sector is between 44.44 and 50.52 percent. Non-M/WBE availability is between 49.48 and 55.56 percent. Among M/WBEs, availability of African American-owned businesses is 1.91 percent, availability of Hispanic-owned businesses is between 29.76 and 35.60 percent, availability of Asian/Pacific Islander-owned businesses is 0.72 and 1.74 percent, and availability of Native American-owned businesses is between 0.94 and 0.97 percent. Availability of minority-owned businesses as a group is between 34.38 and 39.17 percent. Availability of nonminority female-owned businesses is between 10.06 and 11.36 percent.

Overall M/WBE availability in the Architecture & Engineering sector is between 28.77 and 30.55 percent. Non-M/WBE availability is between 69.45 and 71.23 percent. Among M/WBEs, availability of African American-owned businesses is between 1.17 and 1.19 percent, availability of Hispanic-owned businesses is between 15.52 and 15.81 percent, availability of Asian/Pacific Islander-owned businesses is between 2.46 and 3.05 percent, and availability of Native American-owned businesses is between 2.13 and 2.54 percent. Availability of minority-owned businesses as a group is between 21.30 and 22.57 percent. Availability of nonminority female-owned businesses is between 7.47 and 7.98 percent.

Overall M/WBE availability in the Professional Services sector is between 39.70 and 44.62 percent. Non-M/WBE availability is between 55.38 and 60.30 percent. Among M/WBEs, availability of African American-owned businesses is between 5.63 and 6.34 percent, availability of Hispanic-owned businesses is between 22.48 and 27.04 percent, availability of Asian/Pacific Islander-owned businesses is between 0.60 and 0.72 percent, and availability of Native American-owned businesses is 0.19 percent. Availability of minority-owned businesses as a group is between 29.74 and 33.47 percent. Availability of nonminority female-owned businesses is between 9.97 and 11.15 percent.

Overall M/WBE availability in the Other Services sector is between 53.51 and 54.80 percent. Non-M/WBE availability is between 45.20 and 46.49 percent. Among M/WBEs, availability of African American-owned businesses is between 4.00 and 4.45 percent, availability of Hispanic-owned businesses is between 30.10 and 32.30 percent, availability of Asian/Pacific Islander-owned businesses is between 2.11 and 2.16 percent, and availability of Native American-owned businesses is between 0.92 and 1.12 percent. Availability of minority-owned businesses as a group is between 37.62 and 39.54 percent. Availability of nonminority female-owned businesses is between 15.26 and 15.88 percent.

Overall M/WBE availability in the Goods & Supplies sector is between 40.93 and 42.10 percent. Non-M/WBE availability is between 57.90 and 59.07 percent. Among M/WBEs, availability of African American-owned businesses is between 2.01 and 2.14 percent, availability of Hispanic-owned businesses is between 22.71 and 23.31 percent, availability of Asian/Pacific Islander-owned businesses is 4.01 percent, and availability of Native American-owned businesses is between 1.32 and 1.35 percent. Availability of minority-owned businesses as a group is between 30.18 and 30.69 percent. Availability of nonminority female-owned businesses is between 10.75 and 11.42 percent.

Tables 3.14 through 3.18 present detailed estimates of M/WBE availability in the City of San Antonio's relevant market area for Construction, A&E, Professional Services, Other Services, and Goods & Supplies.[60]

Table 3.14. Detailed M/WBE Availability Percentages—Construction (All Contracts) (Dollars Awarded)

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Nonresidential Building Construction (NAICS 2362)	2.11	26.42	2.11	0.42	8.69	39.76	60.24
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.01	19.58	0.08	0.03	3.85	23.56	76.44
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	1.44	48.49	0.90	2.26	11.58	64.67	35.33
Building Equipment Contractors (NAICS 2382)	1.81	42.49	0.04	1.72	11.93	57.99	42.01
Architectural, Engineering, and Related Services (NAICS 5413)	1.16	18.99	4.08	3.13	9.70	37.06	62.94
Other Specialty Trade Contractors (NAICS 2389)	1.44	22.97	0.00	0.00	18.86	43.27	56.73
Land Subdivision (NAICS 2372)	2.67	11.45	2.67	0.00	18.31	35.10	64.90
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.00	34.04	3.43	3.43	13.30	54.20	45.80
Building Finishing Contractors (NAICS 2383)	0.25	50.80	2.28	0.95	8.18	62.46	37.54
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cement and Concrete Product Manufacturing (NAICS 3273)	0.00	12.39	0.00	0.00	8.30	20.69	79.31
Museums, Historical Sites, and Similar Institutions (NAICS 7121)	0.00	12.28	0.00	0.00	26.34	38.62	61.38
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	13.86	0.00	0.00	22.78	36.65	63.35
Other Heavy and Civil Engineering Construction (NAICS 2379)	0.00	17.34	0.00	0.00	6.45	23.79	76.21
Services to Buildings and Dwellings (NAICS 5617)	0.41	48.15	0.00	0.00	9.52	58.08	41.92
Specialized Freight Trucking (NAICS 4842)	2.70	22.47	0.00	0.00	18.81	43.97	56.03
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.00	23.45	0.00	0.00	9.17	32.62	67.38

[60] Similar tables using paid dollar weights were also produced but are not included here for space considerations.

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Colleges, Universities, and Professional Schools (NAICS 6113)	0.00	42.00	0.00	0.00	23.00	65.00	35.00
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	0.00	0.00	0.00	0.00	28.57	28.57	71.43
Glass and Glass Product Manufacturing (NAICS 3272)	0.00	18.18	0.00	0.00	45.45	63.64	36.36
Social Advocacy Organizations (NAICS 8133)	5.02	36.07	0.00	0.00	12.02	53.11	46.89
Advertising, Public Relations, and Related Services (NAICS 5418)	2.20	26.37	0.00	0.00	22.99	51.56	48.44
Remediation and Other Waste Management Services (NAICS 5629)	13.30	2.16	0.00	0.00	25.52	40.98	59.02
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	8.43	0.00	0.00	31.02	39.45	60.55
Lessors of Real Estate (NAICS 5311)	4.91	35.66	0.37	0.00	12.76	53.71	46.29
Motion Picture and Video Industries (NAICS 5121)	0.00	0.00	0.00	0.00	8.33	8.33	91.67
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	1.86	11.58	0.30	0.00	14.00	27.74	72.26
Residential Building Construction (NAICS 2361)	0.21	40.92	0.00	0.00	0.00	41.13	58.87
Printing and Related Support Activities (NAICS 3231)	1.88	27.75	2.36	0.00	12.35	44.34	55.66
Other Support Activities for Transportation (NAICS 4889)	13.42	31.23	6.30	0.00	12.06	63.01	36.99
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	1.12	17.49	0.00	4.25	16.14	39.00	61.00
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	21.21	0.00	0.00	0.00	12.12	33.33	66.67
Other Nonmetallic Mineral Product Manufacturing (NAICS 3279)	0.00	0.00	14.29	0.00	0.00	14.29	85.71
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.00	16.59	1.49	5.40	27.38	50.86	49.14
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	7.14	15.71	0.00	31.43	54.29	45.71

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Other Miscellaneous Manufacturing (NAICS 3399)	5.67	30.19	0.00	3.50	13.09	52.45	47.55
Other Wood Product Manufacturing (NAICS 3219)	0.00	30.23	0.00	6.98	18.60	55.81	44.19
Independent Artists, Writers, and Performers (NAICS 7115)	7.95	1.37	0.86	0.27	25.71	36.16	63.84
Foundries (NAICS 3315)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Utility System Construction (NAICS 2371)	0.00	19.41	0.00	0.00	5.88	25.29	74.71
Activities Related to Real Estate (NAICS 5313)	0.00	7.14	23.21	0.00	0.00	30.36	69.64
Communications Equipment Manufacturing (NAICS 3342)	0.00	0.00	11.11	0.00	11.11	22.22	77.78
Computer Systems Design and Related Services (NAICS 5415)	6.96	23.84	8.09	3.54	12.20	54.63	45.37
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)	4.81	36.07	0.00	0.00	12.02	52.90	47.10
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	34.87	0.00	1.67	13.72	50.26	49.74
Waste Treatment and Disposal (NAICS 5622)	0.00	20.00	0.00	10.00	0.00	30.00	70.00
Civic and Social Organizations (NAICS 8134)	4.82	36.16	0.02	0.00	12.08	53.07	46.93
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	3.51	13.42	1.45	0.00	15.71	34.10	65.90
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	0.00	11.11	0.00	0.00	0.00	11.11	88.89
Software Publishers (NAICS 5112)	0.00	8.72	7.16	0.00	4.69	20.57	79.43

Sources and Notes: See Table 3.13.

Table 3.15. Detailed M/WBE Availability Percentages—Architecture & Engineering (All Contracts) (Dollars Awarded)

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Architectural, Engineering, and Related Services (NAICS 5413)	1.08	18.08	4.47	3.56	9.49	36.69	63.31
Land Subdivision (NAICS 2372)	2.67	11.45	2.67	0.00	18.31	35.10	64.90
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.95	6.76	0.68	1.73	9.23	19.35	80.65
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	2.33	44.35	0.62	1.54	12.73	61.57	38.43
Building Equipment Contractors (NAICS 2382)	1.81	43.84	0.05	1.72	11.50	58.92	41.08
Building Finishing Contractors (NAICS 2383)	0.12	50.44	2.25	0.48	6.25	59.56	40.44
Nonresidential Building Construction (NAICS 2362)	2.11	26.42	2.11	0.42	8.69	39.76	60.24
Remediation and Other Waste Management Services (NAICS 5629)	14.29	0.00	0.00	0.00	28.57	42.86	57.14
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.00	32.80	3.70	3.70	12.70	52.91	47.09
Cement and Concrete Product Manufacturing (NAICS 3273)	0.00	20.00	0.00	0.00	12.59	32.59	67.41
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	4.26	34.84	2.13	0.00	28.19	69.41	30.59
Other Specialty Trade Contractors (NAICS 2389)	3.78	24.87	0.00	0.00	17.78	46.43	53.57
Independent Artists, Writers, and Performers (NAICS 7115)	7.95	1.37	0.86	0.27	25.71	36.16	63.84
Scientific Research and Development Services (NAICS 5417)	5.00	31.19	7.38	5.71	11.43	60.71	39.29
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	7.14	15.71	0.00	31.43	54.29	45.71
Services to Buildings and Dwellings (NAICS 5617)	0.41	48.15	0.00	0.00	9.52	58.08	41.92
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.00	19.58	0.00	0.00	3.70	23.28	76.72
Home Furnishings Stores (NAICS 4422)	0.00	29.60	0.86	0.86	25.86	57.18	42.82
Other Wood Product Manufacturing (NAICS 3219)	0.00	62.50	12.50	0.00	25.00	100.00	0.00
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	0.00	28.01	0.00	0.00	0.00	28.01	71.99
Advertising, Public Relations,	3.57	27.75	0.00	0.00	31.32	62.64	37.36

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
and Related Services (NAICS 5418)							
Specialized Design Services (NAICS 5414)	4.14	17.00	0.00	0.00	46.49	67.63	32.37

Sources and Notes: See Table 3.11.

Table 3.16. Detailed M/WBE Availability Percentages—Professional Services (All Contracts) (Dollars Awarded)

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Individual and Family Services (NAICS 6241)	5.40	36.43	0.10	0.00	12.29	54.22	45.78
Insurance Carriers (NAICS 5241)	0.10	22.63	0.00	0.00	16.97	39.70	60.30
Advertising, Public Relations, and Related Services (NAICS 5418)	2.43	26.60	0.00	0.00	24.38	53.42	46.58
Civic and Social Organizations (NAICS 8134)	4.82	36.16	0.02	0.00	12.08	53.07	46.93
Offices of Physicians (NAICS 6211)	12.00	1.83	1.20	0.00	2.45	17.48	82.52
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)	1.67	17.69	2.75	0.00	15.86	37.97	62.03
Social Advocacy Organizations (NAICS 8133)	5.71	35.81	0.00	0.00	11.94	53.45	46.55
Management, Scientific, and Technical Consulting Services (NAICS 5416)	3.41	11.04	0.57	0.66	24.04	39.71	60.29
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	2.72	45.35	0.45	1.65	10.49	60.66	39.34
Grantmaking and Giving Services (NAICS 8132)	4.71	35.33	0.00	0.00	11.78	51.81	48.19
Depository Credit Intermediation (NAICS 5221)	0.00	0.92	0.00	0.00	0.62	1.54	98.46
Community Food and Housing, and Emergency and Other Relief Services (NAICS 6242)	5.05	36.39	0.39	0.00	13.88	55.71	44.29
Museums, Historical Sites, and Similar Institutions (NAICS 7121)	0.00	12.28	0.00	0.00	26.34	38.62	61.38
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)	0.00	12.80	2.53	0.00	2.53	17.87	82.13
Building Equipment Contractors (NAICS 2382)	1.35	45.36	0.06	1.34	11.68	59.79	40.21
Performing Arts Companies (NAICS 7111)	6.47	30.43	0.14	0.00	21.82	58.87	41.13
Architectural, Engineering, and Related Services (NAICS 5413)	0.96	15.94	5.29	4.12	8.95	35.26	64.74
Land Subdivision (NAICS 2372)	2.67	11.45	2.67	0.00	18.31	35.10	64.90
Building Finishing Contractors (NAICS 2383)	0.00	51.02	1.71	0.00	4.08	56.81	43.19
Other Amusement and Recreation Industries (NAICS 7139)	5.01	36.21	0.57	0.00	13.58	55.37	44.63

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	34.87	0.00	1.67	13.72	50.26	49.74
Other Schools and Instruction (NAICS 6116)	5.03	30.00	1.24	0.09	18.69	55.06	44.94
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)	4.78	35.86	0.78	0.00	11.95	53.38	46.62
Other Support Services (NAICS 5619)	0.00	6.25	0.00	0.00	47.92	54.17	45.83
Other Specialty Trade Contractors (NAICS 2389)	2.55	23.87	0.00	0.00	18.35	44.77	55.23
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)	0.00	43.33	0.00	0.00	18.89	62.22	37.78
Waste Treatment and Disposal (NAICS 5622)	0.00	20.00	0.00	10.00	0.00	30.00	70.00
Independent Artists, Writers, and Performers (NAICS 7115)	7.95	1.37	0.86	0.27	25.71	36.16	63.84
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	8.75	0.00	0.00	23.75	32.50	67.50
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.63	19.56	8.57	1.98	17.70	48.44	51.56
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.00	10.33	0.00	2.79	40.53	53.66	46.34
Radio and Television Broadcasting (NAICS 5151)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Activities Related to Credit Intermediation (NAICS 5223)	3.80	33.02	0.37	0.00	11.84	49.03	50.97
Services to Buildings and Dwellings (NAICS 5617)	5.66	40.89	3.21	0.00	19.24	68.99	31.01
Printing and Related Support Activities (NAICS 3231)	1.88	27.75	2.36	0.00	12.35	44.34	55.66
Educational Support Services (NAICS 6117)	5.26	7.89	0.00	0.00	26.75	39.91	60.09
Other Financial Investment Activities (NAICS 5239)	4.68	34.88	0.06	0.00	11.91	51.54	48.46
Software Publishers (NAICS 5112)	0.00	8.72	7.16	0.00	4.69	20.57	79.43
Religious Organizations (NAICS 8131)	4.81	36.22	0.01	0.00	12.04	53.07	46.93
Legal Services (NAICS 5411)	0.23	96.46	0.00	0.00	2.82	99.50	0.50
Scientific Research and Development Services (NAICS 5417)	5.00	31.19	7.38	5.71	11.43	60.71	39.29
Activities Related to Real Estate (NAICS 5313)	1.28	11.74	0.00	0.00	17.60	30.62	69.38

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Child Day Care Services (NAICS 6244)	6.38	37.13	0.93	0.00	15.85	60.28	39.72
Specialized Design Services (NAICS 5414)	4.14	17.00	0.00	0.00	46.49	67.63	32.37
Other Residential Care Facilities (NAICS 6239)	4.55	36.91	0.00	0.00	12.77	54.23	45.77
Medical and Diagnostic Laboratories (NAICS 6215)	0.00	1.30	1.30	0.00	21.43	24.03	75.97
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	0.00	25.51	0.00	0.00	14.63	40.14	59.86
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	8.43	0.00	0.00	31.02	39.45	60.55
Colleges, Universities, and Professional Schools (NAICS 6113)	0.00	42.00	0.00	0.00	23.00	65.00	35.00
Computer Systems Design and Related Services (NAICS 5415)	6.96	23.84	8.09	3.54	12.20	54.63	45.37
General Medical and Surgical Hospitals (NAICS 6221)	3.45	2.30	1.15	3.45	1.15	11.49	88.51
Offices of Dentists (NAICS 6212)	0.10	30.25	5.70	0.00	8.89	44.93	55.07
Offices of Other Health Practitioners (NAICS 6213)	0.75	25.79	0.00	0.00	32.11	58.65	41.35
Home Furnishings Stores (NAICS 4422)	0.00	29.60	0.86	0.86	25.86	57.18	42.82
Utility System Construction (NAICS 2371)	0.00	19.41	0.00	0.00	5.88	25.29	74.71
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (NAICS 7114)	16.48	5.71	0.00	0.00	16.48	38.68	61.32
Investigation and Security Services (NAICS 5616)	3.88	26.94	4.81	0.97	12.52	49.13	50.87
Elementary and Secondary Schools (NAICS 6111)	5.40	35.93	0.01	0.00	12.03	53.37	46.63
Amusement Parks and Arcades (NAICS 7131)	0.00	33.33	0.00	0.00	0.00	33.33	66.67

Sources and Notes: See Table 3.11.

Table 3.17. Detailed M/WBE Availability Percentages—Other Services (All Contracts) (Dollars Awarded)

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Employment Services (NAICS 5613)	4.05	31.78	2.95	3.95	10.48	53.20	46.80
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)	4.78	35.89	0.74	0.00	11.96	53.37	46.63
Services to Buildings and Dwellings (NAICS 5617)	4.39	41.62	2.21	0.19	16.73	65.14	34.86
Computer Systems Design and Related Services (NAICS 5415)	6.78	21.66	8.22	3.18	13.76	53.61	46.39
Investigation and Security Services (NAICS 5616)	3.88	26.94	4.81	0.97	12.52	49.13	50.87
Building Equipment Contractors (NAICS 2382)	0.65	28.27	0.03	0.65	18.18	47.79	52.21
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	4.26	34.84	2.13	0.00	28.19	69.41	30.59
Special Food Services (NAICS 7223)	1.87	25.20	0.00	0.00	3.70	30.77	69.23
Management, Scientific, and Technical Consulting Services (NAICS 5416)	2.36	13.89	0.64	1.70	24.81	43.40	56.60
Individual and Family Services (NAICS 6241)	5.45	36.44	0.10	0.00	12.29	54.28	45.72
Waste Treatment and Disposal (NAICS 5622)	0.00	20.00	0.00	10.00	0.00	30.00	70.00
Civic and Social Organizations (NAICS 8134)	4.82	36.16	0.02	0.00	12.08	53.07	46.93
Other Specialty Trade Contractors (NAICS 2389)	0.00	21.81	0.00	0.00	19.53	41.34	58.66
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	8.43	0.00	0.00	31.02	39.45	60.55
Home Health Care Services (NAICS 6216)	8.61	44.24	0.00	0.00	22.91	75.76	24.24
Architectural, Engineering, and Related Services (NAICS 5413)	1.07	16.99	5.00	4.04	9.14	36.24	63.76
Clothing Stores (NAICS 4481)	12.28	25.65	0.64	0.00	52.74	91.31	8.69
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Charter Bus Industry (NAICS 4855)	0.00	22.22	11.11	0.00	0.00	33.33	66.67
Museums, Historical Sites, and Similar Institutions (NAICS 7121)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonresidential Building Construction (NAICS 2362)	2.11	26.42	2.11	0.42	8.69	39.76	60.24
Drycleaning and Laundry Services (NAICS 8123)	0.00	0.00	0.00	0.00	20.00	20.00	80.00

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Travel Arrangement and Reservation Services (NAICS 5615)	1.44	12.56	3.87	3.87	69.57	91.30	8.70
Social Advocacy Organizations (NAICS 8133)	5.81	35.77	0.00	0.00	11.92	53.50	46.50
Software Publishers (NAICS 5112)	0.00	8.72	7.16	0.00	4.69	20.57	79.43
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	0.94	44.78	0.94	1.77	14.75	63.16	36.84
Advertising, Public Relations, and Related Services (NAICS 5418)	2.49	26.67	0.00	0.00	24.76	53.91	46.09
Specialized Freight Trucking (NAICS 4842)	2.22	17.78	0.00	0.00	25.56	45.56	54.44
Independent Artists, Writers, and Performers (NAICS 7115)	7.95	1.37	0.86	0.27	25.71	36.16	63.84
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	1.15	21.71	0.17	1.59	13.43	38.06	61.94
Colleges, Universities, and Professional Schools (NAICS 6113)	0.00	42.00	0.00	0.00	23.00	65.00	35.00
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	33.33	0.00	0.00	0.00	33.33	66.67	33.33
Home Furnishings Stores (NAICS 4422)	0.00	29.60	0.86	0.86	25.86	57.18	42.82
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.28	12.70	0.03	7.09	15.37	35.47	64.53
Other Personal Services (NAICS 8129)	0.00	12.50	0.00	0.00	43.75	56.25	43.75
Specialized Design Services (NAICS 5414)	4.14	17.00	0.00	0.00	46.49	67.63	32.37
Automotive Equipment Rental and Leasing (NAICS 5321)	0.00	0.00	0.00	0.00	2.57	2.57	97.43
Electronic Shopping and Mail-Order Houses (NAICS 4541)	0.00	10.90	3.39	0.00	38.74	53.03	46.97
Motion Picture and Video Industries (NAICS 5121)	6.13	17.07	0.00	5.17	19.95	48.32	51.68
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.00	5.46	18.81	0.00	15.67	39.94	60.06
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	0.00	50.00	15.38	0.00	0.00	65.38	34.62
Audio and Video Equipment Manufacturing (NAICS 3343)	33.33	33.33	0.00	0.00	0.00	66.67	33.33
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	5.71	39.90	2.29	0.00	11.62	59.52	40.48

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	16.67	0.00	0.00	21.51	38.18	61.82
Child Day Care Services (NAICS 6244)	6.38	37.13	0.93	0.00	15.85	60.28	39.72
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	0.00	20.92	3.04	1.04	16.75	41.75	58.25
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	0.00	10.02	6.99	0.00	0.00	17.02	82.98
Performing Arts Companies (NAICS 7111)	4.82	36.14	0.00	0.00	12.05	53.01	46.99
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)	0.00	43.33	0.00	0.00	18.89	62.22	37.78
Taxi and Limousine Service (NAICS 4853)	0.00	40.79	0.00	0.00	19.74	60.53	39.47
Health and Personal Care Stores (NAICS 4461)	2.04	41.50	7.03	0.00	13.15	63.72	36.28
Automotive Repair and Maintenance (NAICS 8111)	13.45	35.30	0.00	8.40	9.25	66.40	33.60
Educational Support Services (NAICS 6117)	5.26	7.89	0.00	0.00	26.75	39.91	60.09
Offices of Other Health Practitioners (NAICS 6213)	0.75	25.79	0.00	0.00	32.11	58.65	41.35
Spectator Sports (NAICS 7112)	50.00	0.00	0.00	0.00	25.00	75.00	25.00

Sources and Notes: See Table 3.11.

Table 3.18. Detailed M/WBE Availability Percentages—Goods & Supplies (All Contracts) (Dollars Awarded)

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Automobile Dealers (NAICS 4411)	0.05	31.13	2.16	0.00	6.73	40.06	59.94
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	0.00	7.35	0.00	0.00	19.39	26.75	73.25
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	2.19	22.68	0.87	0.27	16.52	42.54	57.46
Computer Systems Design and Related Services (NAICS 5415)	6.85	22.45	8.18	3.31	13.20	53.98	46.02
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	24.23	6.30	0.98	17.37	48.88	51.12
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	1.88	19.91	8.13	2.79	19.32	52.02	47.98
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.00	5.46	18.81	0.00	15.67	39.94	60.06
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	0.00	25.08	0.47	0.11	14.65	40.31	59.69
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	0.00	25.51	0.00	0.00	14.63	40.14	59.86
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)	0.00	31.43	0.31	0.31	1.79	33.84	66.16
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	14.04	5.04	0.00	29.25	48.33	51.67
Other Telecommunications (NAICS 5179)	0.00	12.84	0.00	1.49	11.34	25.67	74.33
Communications Equipment Manufacturing (NAICS 3342)	0.00	9.74	8.71	0.00	8.71	27.15	72.85
Architectural, Engineering, and Related Services (NAICS 5413)	0.96	15.94	5.29	4.12	8.95	35.26	64.74
Building Equipment Contractors (NAICS 2382)	1.73	29.84	0.01	1.58	16.11	49.28	50.72
Aerospace Product and Parts Manufacturing (NAICS 3364)	4.50	31.53	0.00	0.00	26.13	62.17	37.83
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	0.00	20.17	0.00	0.00	10.98	31.16	68.84
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	0.00	0.00	4.48	0.00	21.26	25.74	74.26
Software Publishers (NAICS 5112)	0.00	8.72	7.16	0.00	4.69	20.57	79.43
Navigational, Measuring,	6.44	7.28	4.63	0.00	5.43	23.79	76.21

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Electromedical, and Control Instruments Manufacturing (NAICS 3345)							
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	6.32	13.91	0.00	39.32	59.55	40.45
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	34.87	0.00	1.67	13.72	50.26	49.74
Petroleum and Coal Products Manufacturing (NAICS 3241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Audio and Video Equipment Manufacturing (NAICS 3343)	33.33	33.33	0.00	0.00	0.00	66.67	33.33
Advertising, Public Relations, and Related Services (NAICS 5418)	1.96	26.27	0.00	0.00	23.71	51.95	48.05
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	3.49	9.78	0.00	0.00	9.78	23.04	76.96
Automotive Repair and Maintenance (NAICS 8111)	3.12	41.59	3.33	2.60	10.76	61.39	38.61
Other Miscellaneous Manufacturing (NAICS 3399)	1.72	38.67	0.00	1.06	11.07	52.52	47.48
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	1.63	11.16	2.00	0.00	38.18	52.96	47.04
Building Material and Supplies Dealers (NAICS 4441)	0.00	17.70	0.00	0.00	16.96	34.66	65.34
Nonresidential Building Construction (NAICS 2362)	2.11	26.42	2.11	0.42	8.69	39.76	60.24
Automotive Equipment Rental and Leasing (NAICS 5321)	0.00	0.00	0.00	0.00	1.80	1.80	98.20
Motor Vehicle Manufacturing (NAICS 3361)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.00	23.45	0.00	0.00	9.17	32.62	67.38
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS	0.00	15.00	0.00	0.00	0.00	15.00	85.00
Management, Scientific, and Technical Consulting Services (NAICS 5416)	2.70	3.81	0.38	0.58	3.89	11.36	88.64
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	21.45	0.00	0.00	22.81	44.26	55.74
Plastics Product Manufacturing (NAICS 3261)	0.00	29.63	0.00	0.00	7.41	37.04	62.96
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.34	6.62	0.04	2.09	18.27	27.37	72.63
Printing and Related Support Activities (NAICS 3231)	1.88	27.75	2.36	0.00	12.35	44.34	55.66
Investigation and Security Services (NAICS 5616)	3.05	21.38	5.42	1.06	13.12	44.02	55.98

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)	0.38	35.44	0.00	0.00	1.51	37.32	62.68
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	0.00	2.15	7.25	0.00	52.42	61.82	38.18
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	4.44	12.31	1.17	0.00	15.77	33.70	66.30
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	2.86	30.00	0.00	0.00	11.43	44.29	55.71
Electronic Shopping and Mail-Order Houses (NAICS 4541)	0.00	10.90	3.39	0.00	38.74	53.03	46.97
Remediation and Other Waste Management Services (NAICS 5629)	11.52	6.06	0.00	0.00	20.00	37.58	62.42
Motor Vehicle Parts Manufacturing (NAICS 3363)	0.00	10.00	0.00	0.00	0.00	10.00	90.00
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	0.00	19.26	0.00	0.00	2.38	21.63	78.37
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (NAICS 3327)	0.00	39.17	5.00	0.00	5.00	49.17	50.83
Specialized Freight Trucking (NAICS 4842)	2.53	20.86	0.00	0.00	21.12	44.51	55.49
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)	0.00	11.76	5.88	0.00	17.65	35.29	64.71
Book Stores and News Dealers (NAICS 4512)	0.00	13.82	0.00	4.61	35.98	54.41	45.59
Other Motor Vehicle Dealers (NAICS 4412)	4.50	23.11	4.50	0.00	4.50	36.61	63.39
Services to Buildings and Dwellings (NAICS 5617)	0.41	48.15	0.00	0.00	9.52	58.08	41.92
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)	0.00	6.67	0.00	0.00	6.67	13.33	86.67
Waste Collection (NAICS 5621)	0.00	50.00	0.00	0.00	50.00	100.00	0.00
Pharmaceutical and Medicine Manufacturing (NAICS 3254)	4.00	28.00	8.00	20.00	0.00	60.00	40.00
Utility System Construction (NAICS 2371)	0.00	19.41	0.00	0.00	5.88	25.29	74.71
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	0.00	11.11	0.00	0.00	0.00	11.11	88.89
Child Day Care Services (NAICS 6244)	6.38	37.13	0.93	0.00	15.85	60.28	39.72
Steel Product Manufacturing from	0.00	0.00	25.00	0.00	25.00	50.00	50.00

Detailed Industry Group	African American	Hispanic	Asian/ Pacific Islander	Native American	Non-minority Female	M/WBE	Non-M/WBE
Purchased Steel (NAICS 3312)							
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)	0.00	10.31	1.67	0.00	31.10	43.08	56.92
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	1.12	17.49	0.00	4.25	16.14	39.00	61.00
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	0.00	10.02	6.99	0.00	0.00	17.02	82.98
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	0.00	14.29	0.00	0.00	28.57	42.86	57.14
Motion Picture and Video Industries (NAICS 5121)	11.63	30.23	5.81	0.00	0.00	47.67	52.33
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drycleaning and Laundry Services (NAICS 8123)	0.00	0.00	0.00	0.00	20.00	20.00	80.00
Electric Lighting Equipment Manufacturing (NAICS 3351)	0.00	16.67	0.00	0.00	16.67	33.33	66.67
Legal Services (NAICS 5411)	0.23	96.46	0.00	0.00	2.82	99.50	0.50
Spring and Wire Product Manufacturing (NAICS 3326)	0.00	40.00	0.00	0.00	20.00	60.00	40.00
Other Specialty Trade Contractors (NAICS 2389)	5.46	26.22	0.00	0.00	17.01	48.69	51.31
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)	0.00	33.33	0.00	0.00	33.33	66.67	33.33
Medical Equipment and Supplies Manufacturing (NAICS 3391)	0.00	6.25	0.00	0.00	0.00	6.25	93.75
Office Administrative Services (NAICS 5611)	9.66	18.95	8.66	0.00	9.53	46.79	53.21
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (NAICS 3253)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Animal Production (NAICS 1152)	0.00	13.78	0.00	0.00	38.70	52.48	47.52
Individual and Family Services (NAICS 6241)	5.45	36.44	0.10	0.00	12.29	54.28	45.72
Building Finishing Contractors (NAICS 2383)	1.27	44.53	6.18	4.91	13.63	70.51	29.49

Sources and Notes: See Table 3.11.

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IV. Market-Based Disparities in Business Formation and Business Owner Earnings

A. Introduction

In this chapter, we examine disparities in business formation and earnings in the private sector, where contracting activities are generally *not* subject to M/WBE or other affirmative action requirements. Statistical examination of disparities in the private sector of the relevant geographic market area is important for several reasons. First, to the extent that discriminatory practices by contractors, suppliers, insurers, lenders, customers, and others limit the ability of M/WBEs to compete, those practices will impact the larger private sector as well as the public sector. Second, examining the utilization of M/WBEs in the private sector provides an indicator of the extent to which M/WBEs are used in the absence of race- and gender-conscious efforts, since few firms in the private sector make such efforts. Third, the Supreme Court in *Croson* and other courts acknowledged that state and local governments have a constitutional duty not to contribute to the perpetuation of discrimination in the private sector of their relevant geographic and product markets.

After years of comparative neglect, research on the economics of entrepreneurship and self-employment expanded significantly beginning in the mid-1980s.[61] As a result, there now exists significant agreement on the microeconomic correlates of self-employment.[62] In the U.S., it is known that self-employment rises with age, is higher among men than women, and higher among non-minorities than minorities. The least educated have the highest probability of being self-employed. However, there is evidence in the U.S. that the most highly educated also have a relatively high probability of self-employment. On average, however, increases in educational attainment are generally found to lead to increases in the probability of being self-employed. A higher number of children in the family increases the likelihood of self-employment, at least for men. Workers in agriculture and construction are also especially relatively more likely to be self-employed.

There has been relatively less work on how institutional factors influence self-employment. Such work that has been conducted includes examining the role of minimum wage legislation (Blau, 1987), immigration (Fairlie and Meyer, 1998 and 2003; Olson, Zuiker and Montalto, 2000; Mora

[61] Microeconometric work includes Fuchs (1982), Borjas and Bronars (1989), Evans and Jovanovic (1989), Evans and Leighton (1989), Fairlie and Meyer (1996, 1998), Reardon (1998), Fairlie (1999), Wainwright (2000), Blanchflower and Wainwright (2005), and Blanchflower (2009) for the United States; Rees and Shah (1986), Pickles and O'Farrell (1987), Blanchflower and Oswald (1990, 1998), Meager (1992), Taylor (1996), Robson (1998a, 1998b), and Blanchflower and Shadforth (2007) for the UK; DeWit and van Winden (1990) for the Netherlands; Alba-Ramirez (1994) for Spain; Bernhardt (1994), Schuetze (1998), Arai (1997), Lentz and Laband (1990), and Kuhn and Schuetze (1998) for Canada; Laferrere and McEntee (1995) for France; Blanchflower and Meyer (1994) and Kidd (1993) for Australia; and Foti and Vivarelli (1994) for Italy. There are also several theoretical papers including Kihlstrom and Laffonte (1979), Kanbur (1990), Holmes and Schmitz (1990), Coate and Tennyson (1992), and Cagetti and DeNardi (2006), plus a few papers that draw comparisons across countries, *e.g.,* Schuetze (1998) for Canada and the U.S., Blanchflower and Meyer (1994) for Australia and the U.S., Alba-Ramirez (1994) for Spain and the United States, and Acs and Evans (1994), Blanchflower (2000), Blanchflower, Oswald, and Stutzer (2001), and Blanchflower and Oswald (2008) for many countries.

[62] Parker (2004) and Aronson (1991) provide good overviews.

and Dávila, 2006; Robles and Cordero-Guzmán, 2007),[63] immigration policy (Borjas and Bronars, 1989), and retirement policies (Quinn, 1980). Studies by Long (1982), Blau (1987), and Schuetze (1998), have considered the role of taxes.[64] A number of other studies have also considered the cyclical aspects of self-employment and in particular how movements of self-employment are correlated with movements in unemployment. Meager (1992) provides a useful summary of much of this work.[65]

Blanchflower, Oswald and Stutzer (2001) found that there is a strikingly large latent desire to own a business. There exists frustrated entrepreneurship on a huge scale in the U.S. and other Organization for Economic Co-operation and Development (OECD) countries.[66] In the U.S., 7 out of 10 people say they would prefer to be self-employed. This compares to an actual proportion of self-employed people in 2001 of 7.3 percent of the civilian labor force, which also shows that the proportion of the labor force that is self-employed has declined steadily since 1990 following a small increase in the rate from 1980 to 1990. This raises an important question. Why do so few individuals in the U.S. and OECD countries manage to translate their preferences into action? Lack of start-up capital is one likely explanation. This factor is commonly cited by small-business managers themselves (Blanchflower and Oswald, 1998). There is also econometric evidence that confirms this barrier. Holding other influences constant, people who

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[63] Fairlie and Meyer (1998) found that immigration had no statistically significant impact at all on African American self-employment. In a subsequent paper, Fairlie and Meyer (2003) found that self-employed immigrants did displace self-employed native non-African Americans. They found that immigration has a large negative effect on the probability of self-employment among native non-African Americans, although, surprisingly, they found that immigrants increase native self-employment earnings.

[64] In an interesting study pooling individual level data for the U.S. and Canada from the Current Population Survey and the Survey of Consumer Finances, respectively, Schuetze (1998) finds that increases in income taxes have large and positive effects on the male self-employment rate. He found that a 30 percent increase in taxes generated a rise of 0.9 to 2.0 percentage points in the male self-employment rate in Canada compared with a rise of 0.8 to 1.4 percentage points in the U.S. over 1994 levels.

[65] Evans and Leighton (1989) found that nonminority men who are unemployed are nearly twice as likely as wage workers to enter self-employment. Bogenhold and Staber (1991) also find evidence that unemployment and self-employment are positively correlated. Blanchflower and Oswald (1990) found a strong negative relationship between regional unemployment and self-employment for the period 1983-1989 in the U.K. using a pooled cross-section time-series data set. Blanchflower and Oswald (1998) confirmed this result, finding that the log of the county unemployment rate entered negatively in a cross-section self-employment model for young people age 23 in 1981 and for the same people aged 33 in 1991. Taylor (1996) confirmed this result using data from the British Household Panel Study of 1991, showing that the probability of being self-employed rises when expected self-employment earnings increase relative to employee earnings, *i.e.,* when unemployment is low. Acs and Evans (1994) found evidence from an analysis of a panel of countries that the unemployment rate entered negatively in a fixed effect and random effects formulation. However, Schuetze (1998) found that for the U.S. and Canada the elasticity of the male self-employment rate with respect to the unemployment rate was considerably smaller than found for the effect from taxes discussed above. The elasticity of self-employment associated with the unemployment rate is about 0.1 in both countries using 1994 figures. A decrease of 5 percentage points in the unemployment rate in the U.S. (about the same decline occurred from 1983-1989) leads to about a 1 percentage point decrease in self-employment. Blanchflower (2000) found that there is generally a negative relationship between the self-employment rate and the unemployment rate. It does seem then that there is some disagreement in the literature on whether high unemployment acts to discourage self-employment because of the lack of available opportunities or encourage it because of the lack of viable alternatives.

[66] The OECD is an international organization of those developed countries that accept the principles of representative democracy and a free market economy. There are currently 30 full members.

inherit cash, who win the lottery, or who have large family assets, are all more likely both to set up and sustain a lasting small business. By contrast, childhood personality test-scores turn out to have almost no predictive power about which persons will be running their own businesses as adults (Blanchflower and Oswald, 1998).

One primary impediment to entrepreneurship among minorities is lack of capital. In work based on U.S. micro data at the level of the individual, Evans and Leighton (1989), and Evans and Jovanovic (1989), have argued formally that entrepreneurs face liquidity constraints. The authors use the National Longitudinal Survey of Young Men for 1966-1981, and the Current Population Surveys for 1968-1987. The key test shows that, all else remaining equal, people with greater family assets are more likely to switch to self-employment from employment. This asset variable enters econometric equations significantly and with a quadratic form. Although Evans and his collaborators draw the conclusion that capital and liquidity constraints bind, this claim is open to the objection that other interpretations of their correlation are feasible. One possibility, for example, is that inherently acquisitive individuals both start their own businesses and forego leisure to build up family assets. In this case, there would be a correlation between family assets and movement into self-employment even if capital constraints did not exist. A second possibility is that the correlation between family assets and the movement to self-employment arises because children tend to inherit family firms. Blanchflower and Oswald (1998), however, find that the probability of self-employment depends positively upon whether the individual ever received an inheritance or gift.[67] Moreover, when directly questioned in interview surveys, potential entrepreneurs say that raising capital is their principal problem. Work by Holtz-Eakin, Joulfaian and Harvey (1994a, 1994b) drew similar conclusions using different methods on U.S. data, examining flows into and out of self-employment and finding that inheritances both raise entry and slow exit. In contrast, Hurst and Lusardi (2004), citing evidence from the U.S. *Panel Study of Income Dynamics*, claim to show that wealth is not a significant determinant of entry into self-employment. In response, however, Fairlie and Krashinsky (2006) have demonstrated that when the sample is split into two segments—those who enter self-employment after job loss and those who do not—the strong correlation between assets and rate of entry business formation is evident in both segments.

The work of Black, et al. (1996) for the United Kingdom discovers an apparently powerful role for house prices (through its impact on equity withdrawal) in affecting the supply of small new firms. Cowling and Mitchell (1997) find a similar result. Again, these are both suggestive of capital constraints. Finally, Lindh and Ohlsson (1996) adopt the Blanchflower-Oswald procedure and provide complementary evidence for Sweden. Bernhardt (1994), in a study for Canada using data from the 1981 Social Change in Canada Project, also found evidence that capital constraints appear to bind. Using the 1991 French Household Survey of Financial Assets, Laferrere and McEntee (1995) examined the determinants of self-employment using data on intergenerational transfers of wealth, education, informal human capital, and a range of demographic variables.

They also find evidence of the importance played by the family in the decision to enter self-employment. Intergenerational transfers of wealth, familial transfers of human capital, and the

[67] This emerges from British data, the National Child Development Study; a birth cohort of children born in March 1958 who have been followed for the whole of their lives.

structure of the family, were found to be determining factors in the decision to move from wage work into entrepreneurship. Broussard, et al. (2003) found that the self-employed have between 0.2 and 0.4 more children compared to the non-self-employed. The authors argue that having more children can increase the likelihood that an inside family member will be a good match at running the business. One might also think that the existence of family businesses, which are particularly prevalent in construction and in agriculture, is a further way to overcome the existence of capital constraints. Transfers of firms within families will help to preserve the status quo and will work against the interests of African Americans, in particular, who do not have as strong a history of business ownership as indigenous non-minorities. Analogously, Hout and Rosen (2000) and Fairlie and Robb (2007a) found that the offspring of self-employed parents are more likely than others to become self-employed and argued that the historically low rates of self-employment among African Americans and Latinos may contribute to their low contemporary rates. Fairlie and Robb (2007b), using data from the U.S. *Characteristics of Business Owners Survey*, and Dunn and Holtz-Eakin (2000), using data from the U.S. *National Longitudinal Surveys*, show that the transmission of positive effects of family on self-employment operates through two channels, intergenerational transmission of entrepreneurial preferences and wealth, and the acquisition of general and specific human capital.

A continuing puzzle in the literature has been why, nationally, the self-employment rate of African American males is one-third of that of nonminority males and has remained roughly constant since 1910. Fairlie and Meyer (2000) rule out a number of explanations for the difference. They found that trends in demographic factors, including the Great Migration and the racial convergence in education levels, "did not have large effects on the trend in the racial gap in self-employment" (p. 662). They also found that an initial lack of business experience "cannot explain the current low levels of black self-employment." Further, they found that "the lack of traditions in business enterprise among blacks that resulted from slavery cannot explain a substantial part of the current racial gap in self-employment" (p. 664).

Fairlie (1999) and Wainwright (2000) have shown that a considerable part of the explanation of the differences between the African American and nonminority self-employment rate can be attributed to discrimination. Using the 5 percent Public Use Microdata Sample data ("PUMS") from the 1990 Census, Wainwright (2000) demonstrated that these disparities tend to persist even when factors such as geography, industry, occupation, age, education and assets are held constant.[68]

[68] In Wainwright (2000), the author conducted a series of regression analyses, similar to those reported in Chapter IV, that examined racial differences among males in business formation rates and business owner earnings while holding a large set of control factors constant. Separate regressions were conducted for each of the nine Census geographic divisions. In addition to race, the following factors were controlled for: educational attainment, age, marital status, non-mover status, number of workers in the family, number of children, immigrant status, years in the U.S., English language proficiency, work-limiting disability, veteran status, years of military services, interest and dividend income, usual weeks worked per year, and usual hours worked per week, industry, and occupation. Additionally, a set of local labor market variables was included for each Census division, including the unemployment rate, population size, population growth rate, the government employment rate, and per capita income. The results, in general, showed large and statistically significant disparities in both sets of regressions for all minority groups examined. The findings were strongest for African Americans, followed by Native Americans and Hispanics. Large disparities were documented for Asians as well in many instances.

Bates (1989) finds strong supporting evidence that racial differences in levels of financial capital have significant effects upon racial patterns in business failure rates. Fairlie (1999, 2006) demonstrates, for example, that the African American exit rate from self-employment is twice as high as that of non-minorities. An example will help to make the point. Two baths are being filled with water. In the first scenario, both have the plug in. Water flows into bath A at the same rate as it does into bath B—that is, the inflow rate is the same. When we return after ten minutes the amount of water (the stock) will be the same in the two baths as the inflow rates were the same. In the second scenario, we take out the plugs and allow for the possibility that the outflow rates from the two baths are different. Bath A (the African American firms) has a much larger drain and hence the water flows out more quickly than it does from bath B (the nonminority firms). When we return after 10 minutes, even though the inflow rates are the same there is much less water in bath A than there is in bath B. A lower exit rate for nonminority-owned firms than is found for minority-owned firms is perfectly consistent with the observed fact that minority-owned firms are younger and smaller than nonminority-owned firms. The extent to which that will be true is a function of the relative sizes of the inflow and the outflow rates.

B. Race and Gender Disparities in Earnings

In this section, we examine earnings to determine whether minority and female entrepreneurs earn less from their businesses than do their nonminority male counterparts. Other things equal, if minority and female business owners as a group cannot achieve comparable earnings from their businesses as similarly situated nonminorities because of discrimination, then failure rates for M/WBEs will be higher and M/WBE formation rates will be lower than would be observed in a race- and gender-neutral market area. Both phenomena would contribute directly to lower levels of minority and female business ownership.

Below, we first examine earnings disparities among wage and salary employees, that is, non-business owners. It is helpful to examine this segment of the labor force since a key source of new entrepreneurs in any given industry is the pool of experienced wage and salary workers in similar or related industries (Blanchflower 2000). Therefore, employment discrimination that adversely impacts the ability of minorities or women to succeed in the labor force directly shrinks the available pool of potential M/WBEs. In almost every instance examined, a statistically significant adverse impact on wage and salary earnings is observed—in both the economy at large, in the construction and construction-related professional services sector, and in the goods and services sector.[69]

We then turn to an examination of differences in earnings among the self-employed, that is, among business owners. Here too, among the pool of minorities and women who have formed businesses despite discrimination in both employment opportunities and business opportunities, statistically significant adverse impacts are observed in the vast majority of cases in construction

[69] There is a substantial body of evidence that discriminatory constraints in the capital market prevent minority-owned businesses from obtaining business loans. Furthermore, even when they are able to obtain them, there is evidence that these loans are not obtained on equal terms: minority-owned firms have to pay higher interest rates, other things being equal. This is another form of discrimination with an obvious and direct impact on the ability of racial minorities to form businesses and to expand or grow previously formed businesses. *See* Chapter V, *infra*.

and construction-related professional services (hereafter, "construction"), and other sectors of the economy.

In the remainder of this chapter, we discuss the methods and data we employed and present the specific findings.

1. Methods

We used the statistical technique of linear regression analysis to estimate the effect of each of a set of observable characteristics, such as education and age, on an outcome variable of interest. In this case, the outcome variable of interest is earnings and we used regression to compare earnings among individuals in similar geographic and product markets at similar points in time and with similar years of education and potential labor market experience and see if any adverse race or gender differences remain. In a discrimination free market area, one would not expect to observe significant differences in earnings by race or gender among such similarly situated observations.

Regression also allows us to narrowly tailor our statistical tests to the City of San Antonio's relevant geographic market, and assess whether disparities in that market are statistically significantly different from those observed elsewhere in the nation. Starting from an economy-wide data set, we first estimated the basic model of earnings differences just described and also included an indicator variable for the City of San Antonio Market Area (COSAMA), which is comprised of the San Antonio-New Braunfels, TX Metropolitan Statistical Area. This variable estimates the differential effect of location in the COSAMA relevant to the rest of the country. This model appears as Specification 1 in Tables 4.1 through 4.6. Next, we estimated Specification 2, which is the same model as Specification 1 but with the addition of indicator variables that interact race and gender with the COSAMA indicator. These variables estimate the differential effect of location in the COSAMA *and* membership in the given race or gender group. Specification 3 represents our ultimate specification, which includes all of the variables from the basic model as well as any of the interaction terms from Specification 2 that were statistically significant.[70]

Any negative and statistically significant differences by race or gender that remain in Specification 3 after holding all of these other factors constant—time, age, education, geography, and industry—are consistent with what would be observed in a market suffering from business-related discrimination.[71]

[70] If none of these terms is significant, then Specification 3 reduces to Specification 1.

[71] Typically, a given test statistic is considered to be statistically significant if there is a reasonably low probability that the value of the statistic is due to random chance alone. Unless otherwise indicated, in this and subsequent chapters, we employ three levels of statistical significance, corresponding to 10 percent, 5 percent, and 1 percent probabilities that results were the result of random chance.

2. Data

The analyses undertaken in this Study require individual-level data (*i.e.,* "microdata") with relevant information on business ownership status and other key socioeconomic characteristics. The data source used is the American Community Survey (ACS) Public Use Microdata Sample (PUMS) for 2009–2013. The Census Bureau's ACS is an ongoing survey covering the same type of information collected in the decennial census. The ACS is sent to approximately 3 million addresses annually, including housing units in all counties in the 50 states and the District of Columbia. The PUMS file from the ACS contains records for a subsample of the full ACS. The data used here are the multi-year estimates combining the 2009 through 2013 ACS PUMS records. The combined file contains over six million person-level records. The 2009-2013 ACS PUMS provides the full range of population and housing information collected in the annual ACS and in the decennial census. Business ownership status is identified in the ACS PUMS through the "class of worker" variable, which distinguishes the unincorporated and incorporated self-employed from others in the labor force. The presence of the class of worker variable allows us to construct a detailed cross-sectional sample of individual business owners and their associated earnings.

3. Findings: Race and Gender Disparities in Wage and Salary Earnings

Tables 4.1, 4.2 and 4.3 report results from our regression analyses of annual earnings among wage and salary workers. Table 4.1 focuses on the economy as a whole, Table 4.2 on the construction sector, and Table 4.3 on the goods and services sector. The numbers shown in each table indicate the percentage difference in that sector between the average annual wages of a given race/gender group and comparable nonminority males.

a. Specification 1 - the Basic Model

For example, in Table 4.1 Specification 1, the estimated percentage difference in average annual wages between African Americans (both genders) and nonminority males in 2009–2013 was -38.2 percent. That is, average annual wages among African Americans were 38.2 percent lower than for nonminority males who were otherwise similar in terms of geographic location, industry, age, and education. The number in parentheses below each percentage difference is the t-statistic, which indicates whether the estimated percentage difference is statistically significant or not. In Tables 4.1 through 4.6, a t-statistic of 1.99 or larger indicates statistical significance at a 95 percent confidence level or better.[72] In the example just used, the t-statistic of 296.86 indicates that the result is statistically significant.

Specification 1 in Table 4.1 shows adverse and statistically significant wage disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting in multiple race categories, and nonminority women, consistent with the presence of discrimination in these markets. Observed disparities are large as well, ranging from -19.8 percent for Asians/Pacific Islanders to -38.2 percent for African Americans.

[72] From a two-tailed test.

Specification 1 in Table 4.2 shows similar results when the basic analysis is restricted to the construction sector. In this sector, large, adverse, and statistically significant wage disparities are once again observed for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting in multiple race categories and nonminority women, consistent with the presence of discrimination in these markets. Observed disparities in this sector are large as well, ranging from 13.9 percent for Asians/Pacific Islanders to -37.0 percent for African Americans.

Similarly, Specification 1 in Table 4.3 for the goods and services sector also shows large, adverse, and statistically significant wage disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting in multiple race categories and nonminority women, consistent with the presence of discrimination in these markets. Observed disparities are large in this sector also, ranging from -21.0 percent for Asians/Pacific Islanders to -43.2 percent for African Americans.

A comparison of Tables 4.1 and 4.2 shows that for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races, and nonminority females, the disparities in the construction sector are somewhat smaller than those observed in the economy as a whole. A comparison of Tables 4.1 and 4.3 shows that for each of these groups, the disparities in the goods and services sector are all larger than those observed in the economy as a whole.

b. Specifications 2 and 3 - the Full Model Including City of San Antonio-Specific Interaction Terms

Next, we turn to Specifications 2 and 3 in Tables 4.1 through 4.3. In each of these Tables, Specification 2 is the basic regression model with a set of interaction terms added, designed to test whether minorities and women in the COSAMA differ significantly from those elsewhere in the U.S. economy. Specification 2 in Table 4.1 shows a -38.2 percent wage difference which estimates the direct effect of being African American in 2009–2013, as well as a statistically significant 6.2 percent wage decrement that captures the indirect effect of residing in the COSAMA and being African American. That is, wages for African Americans in the COSAMA, on average, were 6.2 percent lower than for African Americans in the nation as a whole and 44.4 percent lower (-38.2 percent minus 6.2 percent) than for nonminority males in the COSAMA. For Hispanics, there is a 4.3 percent wage decrement associated with residing in the COSAMA. That is, wages for Hispanics in the COSAMA, on average, were 4.3 percent lower than for Hispanics in the nation as a whole and 32.7 percent lower (-28.4 percent minus 4.3 percent) than for nonminority males in the COSAMA. For Asians/Pacific Islanders, there is a 8.6 percent wage decrement associated with residing in the COSAMA. That is, wages for Asians/Pacific Islanders in the COSAMA, on average, were 8.6 percent lower than for Asians/Pacific Islanders in the nation as a whole and 28.4 percent lower (-19.8 percent minus 8.6 percent) than for nonminority males in the COSAMA.

Specification 3 simply repeats Specification 2, dropping any COSAMA interactions that are not statistically significant. In Table 4.1, for example, interaction terms were included in the final specification for African Americans, Hispanics, and Asians/Pacific Islanders. The net result of Specification 3 in Table 4.1 is evidence of large, adverse, and statistically significant wage

disparities for all minority groups and for nonminority women consistent with the presence of discrimination in these markets.

The same is true for the construction sector (Table 4.2) as well as for the goods and services sector (Table 4.3). In the construction sector, however, the only additional statistically significant wage decrement associated with living in the COSAMA is for Hispanics, at 10.0 percent. This result indicates that wages for Hispanics in construction in the COSAMA, on average, were 10.0 percent lower than for Hispanics in the nation as a whole and 33.3 percent lower (-23.3 percent minus 10.0 percent) than for nonminority males in the COSAMA.[73]

In the goods and services sector, however, the only additional statistically significant wage decrement associated with living in the COSAMA are for African Americans and Asians/Pacific Islanders. The result for African Americans in goods and services in the COSAMA indicate that, on average, wages were 5.8 percent lower than for African Americans in the nation as a whole and 49.0 percent lower (-43.2 percent minus 5.8 percent) than for nonminority males in the COSAMA. The result for Asians/Pacific Islanders in goods and services in the COSAMA indicate that, on average, wages were 9.8 percent lower than for Asians/Pacific Islanders in the nation as a whole and 30.8 percent lower (-21.0 percent minus 9.8 percent) than for nonminority males in the COSAMA.[74]

c. Conclusions

Tables 4.1 through 4.3 demonstrate that minorities and women earn substantially and significantly less from their labor than do their similarly situated nonminority male counterparts—in the nation as a whole and in the City of San Antonio Market Area in particular. Such disparities are consistent with the presence of discrimination in the labor force that, in addition to its direct effect on workers, reduces the future availability of M/WBEs by stifling opportunities for minorities and women to progress through precisely those internal labor markets and occupational hierarchies that are most likely to lead to acquiring the skills, experience and contacts necessary to take advantage of entrepreneurial opportunities.[75] They also demonstrate that discrimination results in less opportunity for minorities and women to accumulate and save business start-up capital through their work as employees. In the COSAMA, the disparities are particularly acute in the goods and services sector, and reflect more than just "societal discrimination" because they indicate a nexus between discrimination in the job market and reduced entrepreneurial opportunities for minorities and women. Other things equal, these reduced entrepreneurial opportunities, in turn, lead to lower M/WBE availability levels than would be expected if the market area were race- and gender-neutral.

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[73] Wage decrements in construction in the COSAMA were also observed for African Americans (-9.6%), Asians/Pacific Islanders (-7.0%), nonminority women (-10.5%), and persons reporting multiple races (-9.0%). However these differences were not statistically significant.

[74] A wage decrement in goods and services in the COSAMA was also observed for Hispanics (-0.9%), however this difference was not statistically significant.

[75] *See*, *e.g.*, Ruetschlin and Asante-Muhammad (2015), Hamilton, et al. (2011), Pitts (2007).

Table 4.1. Annual Wage Earnings Regressions, All Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.382 (296.86)	-0.382 (296.15)	-0.382 (296.19)
Hispanic	-0.285 (227.22)	-0.284 (225.22)	-0.284 (225.25)
Asian/Pacific Islander	-0.198 (110.15)	-0.198 (109.81)	-0.198 (109.81)
Native American	-0.360 (80.45)	-0.360 (80.36)	-0.360 (80.44)
Two or more races	-0.300 (106.61)	-0.300 (106.34)	-0.300 (106.62)
Nonminority Female	-0.327 (373.15)	-0.327 (372.57)	-0.327 (373.16)
Age	0.197 (812.73)	0.197 (812.72)	0.197 (812.72)
Age^2	-0.002 (701.22)	-0.002 (701.21)	-0.002 (701.21)
COSAMA	-0.061 (11.83)	-0.036 (3.30)	-0.033 (4.16)
COSAMA*African American		-0.062 (2.53)	-0.065 (2.80)
COSAMA*Hispanic		-0.043 (3.30)	-0.046 (4.39)
COSAMA*Asian/Pacific Islander		-0.086 (2.58)	-0.089 (2.74)
COSAMA*Native American		0.052 (0.46)	n/a
COSAMA*Two or more races		0.004 (0.09)	n/a
COSAMA*Nonminority female		0.007 (0.41)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	5362429	5362429	5362429
Adj. R^2	.3818	.3818	.3818

Source: NERA calculations from the 2009-2013 ACS Public Use Microdata Sample.

Notes: (1) See above, section B.3.(a)-(b) for a description of Specifications 1 through 3; (2) Universe is all private sector wage and salary workers between the ages of 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (3) Reported number is the percentage difference in annual wages between a given group and nonminority men; (4) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (5) Geography is defined based on place of residence; (6) "COSAMA" is shorthand for "City of San Antonio Market Area," which includes the San Antonio-New Braunfels Metropolitan Statistical Area; (7) "n/a" in Specification 3 means that the category was not included in the regression because it was not statistically significant in Specification 2, as described above in section B.3.b; (8) The "Yes" values next to the "Education," "Geography" and "Industry" rows indicate that control variables were included in the regression specification for these factors.

Table 4.2. Annual Wage Earnings Regressions, Construction and Related Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.370 (62.42)	-0.370 (62.27)	-0.370 (62.41)
Hispanic	-0.234 (57.77)	-0.232 (57.05)	-0.233 (57.07)
Asian/Pacific Islander	-0.139 (15.15)	-0.138 (15.08)	-0.139 (15.13)
Native American	-0.346 (25.62)	-0.346 (25.62)	-0.346 (25.61)
Two or more races	-0.234 (21.09)	-0.234 (21.02)	-0.234 (21.08)
Nonminority Female	-0.314 (76.81)	-0.313 (76.50)	-0.314 (76.83)
Age	0.144 (157.18)	0.144 (157.19)	0.144 (157.19)
Age^2	-0.001 (135.31)	-0.001 (135.30)	-0.001 (135.30)
COSAMA	-0.052 (3.04)	0.033 (1.08)	0.007 (0.25)
COSAMA*African American		-0.096 (0.74)	n/a
COSAMA*Hispanic		-0.123 (3.51)	-0.100 (3.09)
COSAMA*Asian/Pacific Islander		-0.070 (0.41)	n/a
COSAMA*Native American		0.465 (0.92)	n/a
COSAMA*Two or more races		-0.090 (0.41)	n/a
COSAMA*Nonminority female		-0.105 (1.68)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	410822	410822	410822
Adj. R^2	.2020	.2020	.2020

Source and Notes: See Table 4.1.

Table 4.3. Annual Wage Earnings Regressions, Goods and Services Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.432 (329.06)	-0.432 (328.27)	-0.432 (328.37)
Hispanic	-0.344 (260.91)	-0.344 (258.96)	-0.345 (260.91)
Asian/Pacific Islander	-0.210 (110.74)	-0.210 (110.41)	-0.210 (110.46)
Native American	-0.420 (88.17)	-0.420 (88.07)	-0.420 (88.17)
Two or more races	-0.345 (116.58)	-0.346 (116.31)	-0.345 (116.58)
Nonminority Female	-0.369 (428.71)	-0.369 (428.00)	-0.369 (428.71)
Age	0.236 (902.07)	0.236 (902.06)	0.236 (902.07)
Age^2	-0.002 (772.74)	-0.002 (772.73)	-0.002 (772.74)
COSAMA	-0.085 (15.10)	-0.080 (6.54)	-0.080 (13.57)
COSAMA*African American		-0.058 (2.18)	-0.058 (2.39)
COSAMA*Hispanic		-0.009 (0.63)	n/a
COSAMA*Asian/Pacific Islander		-0.098 (2.73)	-0.098 (2.85)
COSAMA*Native American		0.052 (0.43)	n/a
COSAMA*Two or more races		0.037 (0.75)	n/a
COSAMA*Nonminority female		0.020 (1.09)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	4951607	4951607	4951607
Adj. R^2	.3268	.3268	.3268

Source and Notes: See Table 4.1.

4. Findings: Race and Gender Disparities in Business Owner Earnings

The patterns of discrimination that affect minority and female wage earners affect minority and female entrepreneurs as well. We turn next to the analysis of race and gender disparities in business owner earnings. Table 4.4 focuses on the economy as a whole, Table 4.5 on the construction sector and Table 4.6 on the goods and services sector. The numbers shown in each table indicate the percentage difference in that sector between the average annual self-employment earnings of a given race/gender group and comparable nonminority males.

a. Specification 1 - the Basic Model[76]

Specification 1 in Table 4.4 shows large, adverse, and statistically significant business owner earnings disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races and nonminority women, consistent with the presence of discrimination in these markets. Business earnings for African Americans are 40.5 percent lower than for comparable nonminority males; for Hispanics, they are 23.4 percent lower; for Asians/Pacific Islanders, they are 10.0 percent lower; for Native Americans, they are 42.5 percent lower; for persons reporting two or more races, they are 35.6 percent lower; and for nonminority women, they are 39.6 percent lower.

Turning to the construction sector, Specification 1 in Table 4.5 shows large, adverse, and statistically significant business owner earnings disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races and nonminority women, consistent with the presence of discrimination in these markets. Business earnings for African Americans are 41.3 percent lower than for comparable nonminority males; for Hispanics, they are 15.2 percent lower; for Asians/Pacific Islanders, they are 19.3 percent lower; for Native Americans, they are 32.8 percent lower; for persons reporting two or more races, they are 26.1 percent lower; and for nonminority women, they are 40.1 percent lower.

For the Goods and Services sector, Specification 1 in Table 4.6 shows large, adverse, and statistically significant business owner earnings disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races and nonminority women, consistent with the presence of discrimination in these markets. Business earnings for African Americans are 45.4 percent lower than for comparable nonminority males; for Hispanics, they are 33.6 percent lower; for Asians/Pacific Islanders, they are 13.0 percent lower; for Native Americans, they are 49.2 percent lower; for persons reporting two or more races, they are 41.8 percent lower; and for nonminority women, they are 44.2 percent lower.

b. Specifications 2 and 3 - the Full Model Including City of San Antonio-Specific Interaction Terms[77]

Next, we turn to Specifications 2 and 3 in Tables 4.4 through 4.6. Specification 2 is the basic regression model enhanced by a set of interaction terms to test whether minorities and women in

[76] See above, section B.3.a., for a detailed description of Specification 1.

[77] See above, section B.3.b., for a detailed description of Specifications 2 and 3.

the COSAMA differ significantly from those elsewhere in the U.S. economy. Specification 3 drops any COSAMA interaction terms that are not statistically significant.

For the economy as a whole in 2009-2013, Table 4.4 shows that none of the COSAMA interaction terms is statistically significant, indicating that disparities are, on average, no better or worse in the COSAMA than what is observed for the nation as a whole.

For the construction sector as well, Table 4.5 shows that none of the COSAMA interaction terms is statistically significant, indicating that disparities are, on average, no better or worse in the COSAMA than what is observed for the nation as a whole.

For the goods and services sector also, Table 4.6 shows that none of the COSAMA interaction terms is statistically significant, indicating that disparities are, on average, no better or worse in the COSAMA than what is observed for the nation as a whole.

c. Conclusions

As was the case for wage and salary earners, minority and female entrepreneurs earn substantially and significantly less from their efforts than similarly situated nonminority male entrepreneurs. The situation, in general, differs little in the City of San Antonio Market Area from that which is observed for the nation as a whole. These disparities are consistent with the presence of discrimination in commercial markets that adversely affects M/WBEs. Other things equal, if minorities and women are prevented by discrimination from earning remuneration from their entrepreneurial efforts comparable to that of similarly situated nonminority males, then capital reinvestment and growth rates may slow, business failure rates may increase and, as demonstrated in the next section, business formation rates may decrease. Combined, these phenomena result in lower M/WBE availability levels than would be observed in a race- and gender-neutral market area, since discrimination depresses business owner earnings for minority and female entrepreneurs. Business owner earnings, however, are often directly related to whether an owner has the capital to reinvest (firm size), how long a firm survives (firm age), and how much money a firm takes in (individual firm revenues). These observations illustrate why employment size, years in business, and individual firm revenues are especially inappropriate factors to consider when attempting to determine if discrimination has diminished opportunities for M/WBEs.[78]

[78] For more on this topic, see "Understanding Capacity," in Chapter III, section B.5, *supra*.

Table 4.4. Annual Business Owner Earnings Regressions, All Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.405 (47.91)	-0.405 (47.84)	-0.405 (47.91)
Hispanic	-0.234 (31.63)	-0.234 (31.29)	-0.234 (31.63)
Asian/Pacific Islander	-0.100 (9.25)	-0.101 (9.33)	-0.100 (9.25)
Native American	-0.425 (18.01)	-0.425 (17.96)	-0.425 (18.01)
Two or more races	-0.356 (24.20)	-0.356 (24.09)	-0.356 (24.20)
Nonminority Female	-0.396 (86.21)	-0.396 (86.07)	-0.396 (86.21)
Age	0.176 (119.16)	0.176 (119.16)	0.176 (119.16)
Age^2	-0.002 (103.96)	-0.002 (103.96)	-0.002 (103.96)
COSAMA	-0.055 (1.98)	-0.050 (1.00)	-0.055 (1.98)
COSAMA*African American		0.040 (0.22)	n/a
COSAMA*Hispanic		-0.031 (0.48)	n/a
COSAMA*Asian/Pacific Islander		0.356 (1.74)	n/a
COSAMA*Native American		-0.352 (0.65)	n/a
COSAMA*Two or more races		-0.132 (0.58)	n/a
COSAMA*Nonminority female		0.013 (0.16)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	556931	556931	556931
Adj. R^2	.1362	.1362	.1362

Source: NERA calculations from the 2009-2013 ACS Public Use Microdata Sample.

Notes: (1) See above, section B.4.(a)-(b) for a description of specifications 1 through 3; (2) Universe is all persons in the private sector with positive business earnings between the ages of 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (3) Reported number is the percentage difference in annual business earnings between a given group and nonminority men; (4) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (5) Geography is defined based on place of residence; (6) "COSAMA" is shorthand for "City of San Antonio Market Area," which includes the San Antonio-New Braunfels Metropolitan Statistical Area; (7) "n/a" in Specification 3 means that the category was not included in the regression because it was not statistically significant in Specification 2, as described above in section B.4.b.

Table 4.5. Business Owner Earnings Regressions, Construction and Related Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.413 (19.72)	-0.414 (19.73)	-0.413 (19.72)
Hispanic	-0.152 (10.08)	-0.151 (9.91)	-0.152 (10.08)
Asian/Pacific Islander	-0.193 (5.67)	-0.193 (5.68)	-0.193 (5.67)
Native American	-0.328 (6.47)	-0.328 (6.45)	-0.328 (6.47)
Two or more races	-0.261 (7.17)	-0.259 (7.10)	-0.261 (7.17)
Nonminority female	-0.401 (23.04)	-0.401 (22.98)	-0.401 (23.04)
Age	0.130 (37.31)	0.130 (37.32)	0.130 (37.31)
Age^2	-0.001 (33.98)	-0.001 (33.99)	-0.001 (33.98)
COSAMA	-0.085 (1.59)	-0.047 (0.53)	-0.085 (1.59)
COSAMA*African American		0.494 (0.73)	n/a
COSAMA*Hispanic		-0.071 (0.64)	n/a
COSAMA*Asian/Pacific Islander		0.563 (0.53)	n/a
COSAMA*Native American		0.035 (0.04)	n/a
COSAMA*Two or more races		-0.609 (1.12)	n/a
COSAMA*Nonminority Female		-0.031 (0.10)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	89538	89538	89538
Adj. R^2	.0432	.0432	.0432

Source and Notes: See Table 4.4.

Table 4.6. Business Owner Earnings Regressions, Goods and Services Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.454 (50.5)	-0.454 (50.46)	-0.454 (50.5)
Hispanic	-0.336 (42.19)	-0.336 (41.83)	-0.336 (42.19)
Asian/Pacific Islander	-0.130 (11.34)	-0.131 (11.40)	-0.130 (11.34)
Native American	-0.492 (18.76)	-0.491 (18.70)	-0.492 (18.76)
Two or more races	-0.418 (26.17)	-0.418 (26.07)	-0.418 (26.17)
Nonminority female	-0.442 (99.82)	-0.443 (99.63)	-0.442 (99.82)
Age	0.198 (117.80)	0.198 (117.80)	0.198 (117.80)
Age^2	-0.002 (101.06)	-0.002 (101.06)	-0.002 (101.06)
COSAMA	-0.055 (1.67)	-0.070 (1.15)	-0.055 (1.67)
COSAMA*African American		0.185 (0.84)	n/a
COSAMA*Hispanic		-0.002 (0.03)	n/a
COSAMA*Asian/Pacific Islander		0.304 (1.40)	n/a
COSAMA*Native American		-0.716 (1.25)	n/a
COSAMA*Two or more races		-0.054 (0.21)	n/a
COSAMA*Nonminority Female		0.024 (0.26)	n/a
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	467393	467393	467393
Adj. R^2	.0891	.0891	.0891

Source and Notes: See Table 4.4.

C. Race and Gender Disparities in Business Formation

As discussed in the two previous sections, discrimination that affects the wages and entrepreneurial earnings of minorities and women will ultimately affect the number of businesses formed by these groups as well. In this section, we turn to an analysis of race and gender disparities in business formation.[79] We compare self-employment rates by race and gender to determine whether minorities or women are as likely to become entrepreneurs as are similarly situated nonminority males. We find that in most cases they are not as likely to do so, and that minority and female business formation rates would be substantially and significantly higher if markets operated in a race- and gender-neutral manner.

Discrimination in the labor market, symptoms of which are evidenced in Section B.3 above, might cause wage and salary workers to turn to self-employment in hopes of encountering less discrimination from customers and suppliers than from employers and co-workers. Other things equal, and assuming minority and female workers did not believe that discrimination pervaded commercial markets as well, this would lead minority and female business formation rates to be higher than would otherwise be expected.

On the other hand, discrimination in the labor market prevents minorities and women from acquiring the very skills, experience, and positions that are often observed among those who leave the ranks of the wage and salary earners to start their own businesses. Many construction contracting concerns have been formed by individuals who were once employed as foremen or in related positions for other contractors, fewer by those who were employed instead as laborers. Moreover, discrimination in wages and salaries earned in labor markets inhibits the accumulation of capital necessary for business formation. Similarly, discrimination in commercial capital and credit markets, as well as asset and wealth distribution, prevents minorities and women from acquiring the financial credit and capital that are so often prerequisites to starting or expanding a business. Other things being equal, these phenomena would lead minority and female business formation rates to be lower than otherwise would be expected.

Further, discrimination by commercial customers and suppliers against M/WBEs, symptoms of which are evidenced in Section B.4 above and elsewhere, operates to increase input prices and lower output prices for M/WBEs. This discrimination leads to higher rates of failure for some minority- and women-owned firms, lower rates of profitability and growth for others, and prevents some minorities and women from ever starting businesses at all.[80] All of these phenomena, other things equal, would contribute directly to relatively lower observed rates of minority and female self-employment.

1. Methods and Data

To see if minorities or nonminority women are as likely to be business owners as are comparable nonminority males, we use a statistical technique known as Probit regression. Probit regression is used to determine the relationship between a categorical variable—one that can be characterized

[79] We use the phrases "business formation rates" and "self-employment rates" interchangeably in this Study.

[80] See also the materials cited at fn. 61 *supra*.

in terms of a "yes" or a "no" response as opposed to a continuous number—and a set of characteristics that are related to the outcome of the categorical variable. Probit regression produces estimates of the extent to which each characteristic is positively or negatively related to the likelihood that the categorical variable will be a yes or no. For example, Probit regression is used by statisticians to estimate the likelihood that an individual participates in the labor force, retires this year, or contracts a particular disease—these are all variables that can be categorized by a response of "yes" (for example, she is in the labor force) or "no" (for example, she is not in the labor force)—and the extent to which certain factors are positively or negatively related to the likelihood (for example, the more education she has, the more likely that she is in the labor force). Probit regression is one of several techniques that can be used to examine qualitative outcomes. Generally, other techniques such as Logit regression yield similar results.[81] In the present case, Probit regression is used to examine the relationship between the choice to own a business (yes or no) and the other demographic and socioeconomic characteristics in our basic model. The underlying data for this section is once again the 2009-2013 ACS PUMS.

2. Findings: Race and Gender Disparities in Business Formation

As a reference point, Tables 4.7 and 4.8 summarize rates of business ownership during 2009-2013 by race and gender. A noticeable feature of both tables is how much higher, on average, rates are for nonminority males than for all other groups. Table 4.7, for example, shows a 9.84 percentage point difference between the overall self-employment rate of African Americans and nonminority males in the COSAMA (14.43 – 4.59 = 9.84). As shown in the rightmost column of Table 4.7, this 9.84 percentage point gap translates into an African American business formation rate in the COSAMA that is 68.2 percent lower than the nonminority male business formation rate (*i.e.,* 4.59 – 14.43 ÷ 14.43 ≈ -68.2%). For Hispanics, the business formation rate is 41.3 percent lower. For Asians/Pacific Islanders, it is 5.1 percent lower. For Native Americans, it is 58.4 percent lower. For persons reporting multiple races, it is 46.6 percent lower. For minorities as a group, it is 42.5 percent lower. For nonminority women, it is 34.7 percent lower; and for M/WBEs overall, it is 40.9 percent lower.

Table 4.8 provides similar information for the construction sector and the goods and services sector. With the sole exception of Native Americans, large deficits are observed in the construction sector for all groups. Large deficits are observed in the goods and services sector as well for all groups.

There is little doubt that a portion of the group differences documented in Tables 4.7 and 4.8 are associated with differences in the distribution of individual productivity characteristics and preferences between minorities, women and nonminority males. It is well known, for example, that earnings tend to increase with labor market experience (*i.e.,* age). It is also true that the propensity toward self-employment increases with labor market experience.[82] Since most minority populations in the United States have a lower median age than the nonminority population, it is important to test whether the disparities in business ownership evidenced in

[81] For a detailed discussion, see G.S. Maddala (1983). Probit analysis is performed here using the "dprobit" command in the statistical program STATA.

[82] Wainwright (2000), p. 86.

Tables 4.7 and 4.8 can be explained by differences in the age distribution or in other factors such as education, geographic location or the industry preferences of minorities and nonminority women compared to nonminority males.

Table 4.7. Self-Employment Rates in 2009-2013 for Selected Race and Gender Groups: United States and the City of San Antonio Market Area, All Industries

Race/Gender	U.S. (%)	City of San Antonio Market Area (%)	Percent Difference from Nonminority Male in Column (2)
	(1)	(2)	(3)
African American	5.72	4.59	-68.2
Hispanic	8.89	8.47	-41.3
Asian/Pacific Islander	10.66	13.70	-5.1
Native American	8.88	6.01	-58.4
Two or more races	9.26	7.71	-46.6
Minority	8.20	8.30	-42.5
Nonminority female	8.67	9.42	-34.7
M/WBE	8.42	8.53	-40.9
Nonminority male	14.01	14.43	

Source: NERA calculations from the 2009-2013 ACS Public Use Microdata Sample.

Table 4.8. Self-Employment Rates in 2009-2013 for Selected Race and Gender Groups: United States and the City of San Antonio Market Area, Construction Sector and Goods and Services Sector

Race/Gender	U.S. (%)	City of San Antonio Market Area (%)	Percent Difference from Nonminority Male in Column (2)
	(1)	(2)	(3)
Construction Sector			
African American	18.51	9.20	-65.1
Hispanic	17.34	22.06	-16.3
Asian/Pacific Islander	18.54	4.91	-81.4
Native American	17.73	28.45	7.9
Two or more races	21.32	21.33	-19.1
Minority	17.79	21.54	-18.3
Nonminority female	15.24	10.81	-59.0
M/WBE	17.27	20.65	-21.7
Nonminority male	27.07	26.37	
Goods and Services Sector			
African American	5.15	5.15	-56.3
Hispanic	7.72	7.72	-34.5
Asian/Pacific Islander	10.35	10.35	-12.1
Native American	7.79	7.79	-33.9
Two or more races	8.35	8.35	-29.1
Minority	7.35	7.35	-37.6
Nonminority female	8.51	8.51	-27.8
M/WBE	7.90	7.90	-32.9
Nonminority male	11.78	11.78	

Source: NERA calculations from the 2009-2013 ACS Public Use Microdata Sample.

Note: Figures are rounded. Rounding was performed subsequent to any mathematical calculations.

To do this, the remainder of this section presents a series of regression analyses that test whether large, adverse and statistically significant race and gender disparities for minorities and women remain when such other factors are held constant. Table 4.9 focuses on the economy as a whole and Tables 4.10 and 4.11 focus on the construction sector and the goods and services sector, respectively. The numbers shown in each of these tables indicate the percentage point difference between the probability of business ownership for a given race/gender group compared to similarly situated nonminority males.

a. Specification 1 - the Basic Model[83]

Specification 1 in Table 4.9 shows large, adverse, and statistically significant business formation disparities for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races and nonminority women consistent with the presence of discrimination in these markets. Specification 1 in Tables 4.10 and 4.11 shows large, negative,

[83] See above, section C.2.a., for a detailed description of Specification 1.

and statistically significant business formation disparities for each of these groups in the construction sectors as well as in the goods and services sector.

b. Specifications 2 and 3 - the Full Model Including City of San Antonio-Specific Interaction Terms[84]

Several of the COSAMA interaction terms included in Specification 2 were significant. The final results are shown in Specification 3 for Tables 4.9 through 4.11.

To summarize for the economy-wide results (Table 4.9):

- For African Americans, business formation rates are 3.9 percentage points lower than what would be expected in a race- and gender-neutral market area.
- For Hispanics, business formation rates are 2.1 percentage points lower than what would be expected in a race- and gender-neutral market area.[85]
- For Asians/Pacific Islanders, business formation rates are 1.4 percentage points higher than what would be expected in a race- and gender-neutral market area.
- For Native Americans, business formation rates are 3.0 percentage points lower than what would be expected in a race- and gender-neutral market area.
- For persons reporting multiple races, business formation rates are 1.5 percentage points lower than what would be expected in a race- and gender-neutral market area.
- For nonminority women, business formation rates are 1.8 percentage points lower than what would be expected in a race- and gender-neutral market area.

To summarize for the Construction sector results (Table 4.10):

- For African Americans, business formation rates are 8.6 percentage points lower than what would be expected in a race- and gender-neutral market area.
- For Hispanics, business formation rates are 1.8 percentage points lower than what would be expected in a race- and gender-neutral market area.
- For Asians/Pacific Islanders, business formation rates are 5.0 percentage points lower than what would be expected in a race- and gender-neutral market area.

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[84] See above, section C.2.b., for a detailed description of Specifications 2 and 3.

[85] Recall that the net business formation rate is equal to the value direct coefficient (on the Hispanic indicator variable in this case) plus the value of the statistically significant coefficient on the COSAMA*Hispanic interaction term. In this example, the 2.1 percent figure is the net result of the direct coefficient for Hispanics, with a value of -3.2 percent, and the coefficient for Hispanics interacted with the COSAMA indicator, which is positive 1.1 percent.

- For Native Americans, business formation rates are 9.4 percentage points lower than what would be expected in a race- and gender-neutral market area.

- For persons reporting multiple races, business formation rates are 2.5 percentage points lower than what would be expected in a race- and gender-neutral market area.

- For nonminority women, business formation rates are 18.5 percentage points lower than what would be expected in a race- and gender-neutral market area.

To summarize for the Goods and Services sector results (Table 4.11):

- For African Americans, business formation rates are 5.3 percentage points lower than what would be expected in a race- and gender-neutral market area.

- For Hispanics, business formation rates are 3.4 percentage points lower than what would be expected in a race- and gender-neutral market area.

- For Asians/Pacific Islanders, business formation rates are 3.5 percentage points higher than what would be expected in a race- and gender-neutral market area.

- For Native Americans, business formation rates are 3.5 percentage points lower than what would be expected in a race- and gender-neutral market area.

- For persons reporting multiple races, business formation rates are 1.9 percentage points higher than what would be expected in a race- and gender-neutral market area.

- For nonminority women, business formation rates are 1.7 percentage points lower than what would be expected in a race- and gender-neutral market area.

Table 4.9. Business Formation Regressions, All Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.039 (122.80)	-0.039 (122.55)	-0.039 (122.81)
Hispanic	-0.032 (112.53)	-0.032 (112.06)	-0.032 (112.08)
Asian/Pacific Islander	-0.013 (32.07)	-0.013 (32.21)	-0.013 (32.22)
Native American	-0.030 (29.69)	-0.030 (29.68)	-0.030 (29.70)
Two or more races	-0.015 (21.69)	-0.015 (21.63)	-0.015 (21.69)
Nonminority Female	-0.027 (119.61)	-0.027 (119.52)	-0.027 (119.54)
Age	0.009 (154.16)	0.009 (154.16)	0.009 (154.16)
Age^2	-0.000 (101.69)	-0.000 (101.69)	-0.000 (101.69)
COSAMA	-0.002 (2.04)	-0.008 (3.86)	-0.009 (4.48)
COSAMA*African American		-0.007 (0.99)	n/a
COSAMA*Hispanic		0.010 (3.42)	0.011 (3.84)
COSAMA*Asian/Pacific Islander		0.026 (3.09)	0.027 (3.21)
COSAMA*Native American		0.011 (0.40)	n/a
COSAMA*Two or more races		-0.001 (0.14)	n/a
COSAMA*Nonminority Female		0.008 (2.13)	0.009 (2.39)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	5894981	5894981	5894981
Pseudo R^2	.2089	.2089	.2089

Source: NERA calculations from the 2009-2013 ACS Public Use Microdata Sample.

Notes: (1) See above, section C.2.(a)-(b) for a description of specifications 1 through 3; (2) Universe is all private sector labor force participants between the ages of 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (3) Reported number represents the percentage point probability difference in business ownership rates between a given group and nonminority men, evaluated at the mean business ownership rate for the estimation sample; (4) Number in parentheses is the absolute value of the associated z-statistic. Using a two-tailed test, z-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (5) Geography is defined based on place of residence; (6) "COSAMA" is shorthand for "City of San Antonio Market Area," which includes the San Antonio-New Braunfels Metropolitan Statistical Area; (7) "n/a" in Specification 3 indicates that the category was not included in the regression because it was not statistically significant in Specification 2, as described above in section C.2.b.

Table 4.10. Business Formation Regressions, Construction and Related Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.086 (30.90)	-0.086 (30.83)	-0.086 (30.91)
Hispanic	-0.063 (33.97)	-0.064 (34.05)	-0.064 (34.07)
Asian/Pacific Islander	-0.050 (11.92)	-0.050 (11.87)	-0.050 (11.94)
Native American	-0.093 (14.91)	-0.094 (15.02)	-0.094 (15.02)
Two or more races	-0.025 (4.88)	-0.025 (4.89)	-0.025 (4.89)
Nonminority Female	-0.099 (49.16)	-0.099 (48.98)	-0.099 (49.15)
Age	0.020 (50.79)	0.020 (50.78)	0.020 (50.78)
Age^2	-0.000 (31.46)	-0.000 (31.46)	-0.000 (31.46)
COSAMA	0.024 (3.20)	0.003 (0.21)	-0.003 (0.23)
COSAMA*African American		-0.050 (0.83)	n/a
COSAMA*Hispanic		0.040 (2.54)	0.046 (3.07)
COSAMA*Asian/Pacific Islander		-0.084 (1.02)	n/a
COSAMA*Native American		0.402 (2.44)	n/a
COSAMA*Two or more races		0.010 (0.10)	n/a
COSAMA*Nonminority female		-0.015 (0.50)	-0.086 (30.91)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	504928	504928	504928
Pseudo R^2	.0708	.0708	.0708

Source and Notes: See Table 4.9.

Table 4.11. Business Formation Regressions, Goods and Services Industries, 2009-2013

Independent Variables	Specification		
	(1)	(2)	(3)
African American	-0.053 (130.75)	-0.053 (130.45)	-0.053 (130.75)
Hispanic	-0.034 (85.62)	-0.034 (84.80)	-0.034 (85.34)
Asian/Pacific Islander	-0.021 (40.94)	-0.021 (41.12)	-0.021 (41.14)
Native American	-0.035 (24.17)	-0.034 (24.10)	-0.035 (24.17)
Two or more races	-0.019 (20.30)	-0.019 (20.24)	-0.019 (20.29)
Nonminority Female	-0.029 (106.95)	-0.029 (106.88)	-0.029 (106.96)
Age	0.009 (133.80)	0.009 (133.79)	0.009 (133.79)
Age^2	-0.000 (87.61)	-0.000 (87.61)	-0.000 (87.61)
COSAMA	-0.006 (3.60)	-0.008 (2.61)	-0.009 (5.23)
COSAMA*African American		-0.009 (1.03)	n/a
COSAMA*Hispanic		-0.002 (0.44)	n/a
COSAMA*Asian/Pacific Islander		0.054 (5.00)	0.056 (5.39)
COSAMA*Native American		-0.030 (0.90)	n/a
COSAMA*Two or more races		-0.001 (0.05)	n/a
COSAMA*Nonminority female		0.010 (2.11)	0.012 (2.94)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	5436958	5436958	5436958
Pseudo R^2	.0534	.0534	.0534

Source and Notes: See Table 4.9.

c. Conclusions

This section has demonstrated that, for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races, minorities as a group, nonminority women and minorities and women as a group, observed business formation rates in the overall economy of the City of San Antonio Market Area are substantially and statistically significantly lower than those that would be expected to be observed if commercial markets operated in a race- and gender-neutral manner. The same is true in the goods and services sector and, with the exception of Native Americans, the same is true in the construction sector. Minorities and women in general are substantially and significantly less likely to own their own businesses than would be expected based upon their observable demographic characteristics including age, education, geographic location, industry and trends over time. Moreover, as demonstrated in previous sections, these groups also suffer substantial and significant earnings disadvantages relative to comparable nonminority males whether they work as wage and salary employees or as entrepreneurs. These findings are consistent with results that would be observed in a discriminatory market area.

D. Expected Business Formation Rates—Implications for Current M/WBE Availability[86]

In Table 4.12, the Probit regression results for the City of San Antonio Market Area from Tables 4.9, 4.10 and 4.11 for the overall economy, the construction sector, and the goods and services sector, respectively, are combined with weighted average self-employment rates by race and gender from the 2009-2013 ACS PUMS (Tables 4.7 and 4.8) to determine the disparity between baseline availability and expected availability in a race- and gender-neutral market area. These figures appear in column (3) of each panel in Table 4.12.

The business formation rate in the COSAMA for African Americans in the construction sector, for example, is 9.20 percent (see middle panel of Table 4.12, top row). According to the regression specification underlying Table 4.10, however, that rate would be 17.80 percent, or 93.5 percent higher, in a race- and gender-neutral market area. Put differently, the disparity ratio of the actual business formation rate to the expected business formation rate for African Americans in construction in the COSAMA is 51.69. Disparity indices are adverse and statistically significant in construction for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, persons reporting multiple races, minorities as a group, nonminority women, and minorities and women combined.

In the construction sector, the largest disparities observed are for nonminority women (36.88), followed in descending order by Asians/Pacific Islanders (49.55), African Americans (51.69), Native Americans (75.17), M/WBEs as a group (84.11), minorities as a group (88.61), persons reporting multiple races (89.51), and Hispanics (92.46).

[86] In addition to quantifying how discrimination may have depressed current measured levels of M/WBE availability, this exercise also addresses the requirements of 49 C.F.R. 26.45 ("Step 2") for the United States Department of Transportation Disadvantaged Business Enterprise Program.

In the goods and services sector, the largest disparities observed are for African Americans (49.28), followed in descending order by Native Americans (69.00), Hispanics (69.42), minorities as a group (70.88), M/WBEs as a group (71.69), persons reporting multiple races (81.46), and nonminority women (83.35).

In the economy as a whole, the largest disparities observed are for African Americans (54.06), followed in descending order by Native Americans (66.70), M/WBEs as a group (75.22), minorities as a group (76.92), Hispanics (80.13), persons reporting multiple races (83.71), and nonminority women (83.96).

Given the substantial disparities observed in all sectors of the economy for most presumptive groups, goal-setters might consider adjusting baseline estimates of M/WBE availability upward to partly account for the depressing effects of discrimination on current measured levels of availability. The business formation rate disparities documented in Table 4.12 can be combined with the estimates of current M/WBE availability documented in Table 3.13 and elsewhere to provide estimates of expected availability. Such estimates appear in Table 6.7, below. Expected M/WBE availability exceeds actual current M/WBE availability overall and in each major procurement category.[87]

[87] Only eight exceptions were observed out of 70 measurements. *See* Table 6.7 and fn. 153.

Table 4.12. Actual and Potential Business Formation Rates in the City of San Antonio Market Area

Race/Gender	Business Formation Rate (%)	Expected Business Formation Rate (%)	Disparity Ratio
All Industries	(1)	(2)	(3)
African American	4.59	8.49	54.06
Hispanic	8.47	10.57	80.13
Asian/Pacific Islander	13.70	12.30	
Native American	6.01	9.01	66.70
Two or more races	7.71	9.21	83.71
Minority	8.30	10.79	76.92
Nonminority female	9.42	11.22	83.96
M/WBE	8.53	11.34	75.22
Construction Sector	(1)	(2)	(3)
African American	9.20	17.80	51.69
Hispanic	22.06	23.86	92.46
Asian/Pacific Islander	4.91	9.91	49.55
Native American	28.45	37.85	75.17
Two or more races	21.33	23.83	89.51
Minority	21.54	24.31	88.61
Nonminority female	10.81	29.31	36.88
M/WBE	20.65	24.55	84.11
Goods and Services Sector	(1)	(2)	(3)
African American	5.15	10.45	49.28
Hispanic	7.72	11.12	69.42
Asian/Pacific Islander	10.35	6.85	
Native American	7.79	11.29	69.00
Two or more races	8.35	10.25	81.46
Minority	7.35	10.37	70.88
Nonminority female	8.51	10.21	83.35
M/WBE	7.90	11.02	71.69

Source: 2009-2013 ACS Public Use Microdata Sample. *See* Tables 4.7 through 4.11.

Notes: (A) Figures are rounded. Rounding was performed subsequent to any mathematical calculations. (B) Figures in column (1) are average self-employment rates weighted using ACS population-based person weights, as also shown in Tables 4.7 and 4.8. (C) Figures in column (2), top, middle, and bottom panels, are derived by combining the figure in column (1) with the corresponding result from the regression reported in Table 4.9, 4.10 or 4.11, respectively. Minority and M/WBE figures were derived from similar regression analyses, not reported separately. (D) Column (3) is the figure in column (1) divided by the figure in column (2), with the result multiplied by 100. (E) An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

E. Evidence from the Survey of Business Owners

As a final check on the statistical findings in this chapter, we present evidence from a Census Bureau data collection effort dedicated to M/WBEs. The Census Bureau's *Survey of Business Owners and Self-Employed Persons* (SBO), formerly known as the *Survey of Minority- and Women-Owned Business Enterprises* (SMWOBE), collects and disseminates data on the number, sales, employment, and payrolls of businesses owned by women and members of racial and ethnic minority groups. This survey has been conducted every five years since 1972 as part of the *Economic Census* program. Data from the 2007 SBO, the most recent, were released in 2011.[88]

The SBO estimates are created by matching data collected from income tax returns by the Internal Revenue Service with Social Security Administration data on race and ethnicity, and supplementing this information using statistical sampling methods. The unique field for conducting this matching is the Social Security Number (SSN) or the Employer Identification Number (EIN), as reported on the tax return.[89]

The SBO covers women and five groups of minorities: (1) African Americans, (2) Hispanics, (3) Asians, (4) Native Hawaiians and Pacific Islanders, and (5) American Indians and Alaskan Natives. The 2007 SBO also includes comparative information for nonminority male-owned firms.[90]

The SBO provides aggregate estimates of the number of minority-owned and women-owned firms and their annual sales and receipts. The SBO distinguishes employer firms (*i.e.,* firms with one or more paid employees) from nonemployer firms, and for the former also includes estimates of aggregate annual employment and payroll.

Compared to the ACS PUMS, the SBO is more limited in the scope of industrial and geographic detail it provides. Nonetheless, it contains a wealth of information on the character of minority and female business enterprise in the U.S as a whole as well as in the State of Texas.[91] In the remainder of this section, we present SBO statistics for the United States as a whole and in Texas and calculate disparity indices from them. We find that results in the SBO regarding disparities are consistent with our findings above using the ACS PUMS.

Tables 4.13 and 4.14 contain data for all industries combined. Table 4.13 is for the U.S. as a whole, Table 4.14 is for the State of Texas. Panel A in these two tables summarizes the SBO

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[88] Complete data from the 2012 SBO is not scheduled for release until December 2015.

[89] Prior to 2002, "C" corporations were not included in the SMWOBE universe due to technical difficulties. This has been rectified in the 2002 SBO. For more information, consult the discussion of SBO survey methodology at http://www.census.gov/econ/sbo/.

[90] In the ACS PUMS data, discussed above, the unit of analysis is the business owner, or self-employed person. In the SBO data, the unit of analysis is the business rather than the business owner. Furthermore, unlike most other business statistics, including the other components of the *Economic Census*, the unit of analysis in the SBO is the firm, rather than the establishment.

[91] It is, in general, not possible with the SBO dataset to examine geographic divisions below the state level.

results for each race and/or gender grouping. For example, Panel A of Table 4.13 shows a total of 26.29 million firms in the U.S. in 2007 (column 1) with overall sales and receipts of $10.949 trillion (column 2). Of these 26.29 million firms, 5.19 million had one or more employees (column 3) and these 5.19 million firms had overall sales and receipts of $10.015 trillion (column 4). Column (5) shows a total of 56.63 million employees on the payroll of these 5.19 million firms and a total annual payroll expense of $1.941 trillion (column 6).

The remaining rows in Panel A provide comparable statistics for nonminority male-owned, women-owned, and minority-owned firms. For example, Table 4.13 shows that there were 1.9 million African American-owned firms counted in the SBO, and that these 1.9 million firms registered $135.7 billion in sales and receipts. It also shows that 106,566 of these African American-owned firms had one or more employees, and that they employed a total of 909,552 workers with an annual payroll total of $23.33 billion.

Panel A of Table 4.14 provides comparable information for Texas. The SBO counted 2,111,601 firms in Texas, of which 609,947 were female-owned; 154,283 were African American-owned; 447,589 were Hispanic-owned; 114,297 were Asian-owned; 18,997 were Native American-owned; and 1,196 were Native Hawaiian- or Pacific Islander-owned.

Panel B in each Table converts the figures in Panel A to percentage distributions within each column. For example, Column (1) in Panel B of Table 4.14 shows that African American-owned firms were 7.31 percent of all firms in Texas and female-owned firms were 28.89 percent. Additionally, 21.20 percent of firms were Hispanic-owned, 5.41 percent were Asian-owned, 0.90 percent were Native American-owned, and 0.06 percent were Native Hawaiian- or Pacific Islander-owned.

Column (2) in Panel B provides the same percentage distribution for overall sales and receipts. Table 4.14, for example, shows that although African American-owned firms were 7.31 percent of all firms in Texas, they accounted for only 1.08 percent of all sales and receipts. Similar results are obtained when the sample is restricted to firms with one or more paid employees. Column (3) in Table 4.14 shows that African American-owned employer firms accounted for 2.13 percent of all employer firms but only 0.79 percent of all sales and receipts.

Similar results are obtained when the survey results are restricted to firms with one or more paid employees. Column (3) in Table 4.14, for example, shows that although nonminority male-owned firms were 44.69 percent of all employer firms, they accounted for 68.65 percent of all employer firm sales and receipts. African American-owned firms, in contrast, were 2.13 percent of all employer firms, but they accounted for only 0.79 percent of all employer firm sales and receipts. Hispanic-owned firms were 12.20 percent of all employer firms, but they accounted for only 5.89 percent of all employer firm sales and receipts. Asian-owned firms were 8.62 percent of all employer firms, but they accounted for only 4.67 percent of all employer firm sales and receipts. Native American-owned firms were 0.44 percent of all employer firms and accounted for 0.38 percent of all employer firm sales and receipts. Native Hawaiian- and Pacific Islander-owned firms were 0.05 percent of all employer firms and accounted for 0.04 percent of all employer firm sales and receipts. Finally, women accounted for 18.18 percent of all employer firms, but earned only 10.58 percent of all employer firm sales and receipts.

Table 4.13. Disparity Ratios from the 2007 Survey of Business Owners, United States, All Industries

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	26,294,860	10,949,461,874	5,189,968	10,015,142,962	56,626,554	1,940,572,944
Nonminority Male	10,943,636	7,725,275,376	2,753,871	7,255,760,511	37,138,139	1,386,782,737
Female	7,792,115	1,196,608,004	909,661	1,014,366,348	7,520,121	214,673,400
African American	1,921,864	135,739,834	106,566	97,144,898	909,552	23,334,792
Hispanic	2,260,269	350,661,243	248,852	279,920,707	1,908,161	54,295,508
Asian	1,549,559	506,047,751	397,426	453,574,194	2,807,771	79,230,459
Native Hawaiian/Pac. Islander	37,687	6,319,357	4,151	5,250,301	37,801	1,217,138
Am. Indian & Alaska Native	236,691	34,353,842	23,662	27,494,075	185,037	5,930,247
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	41.62%	70.55%	53.06%	72.45%	65.58%	71.46%
Female	29.63%	10.93%	17.53%	10.13%	13.28%	11.06%
African American	7.31%	1.24%	2.05%	0.97%	1.61%	1.20%
Hispanic	8.60%	3.20%	4.79%	2.79%	3.37%	2.80%
Asian	5.89%	4.62%	7.66%	4.53%	4.96%	4.08%
Native Hawaiian/Pac. Islander	0.14%	0.06%	0.08%	0.05%	0.07%	0.06%
Am. Indian & Alaska Native	0.90%	0.31%	0.46%	0.27%	0.33%	0.31%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		169.52		136.54	123.60	134.68
Female		36.88		57.79	75.77	63.12
African American		16.96		47.24	78.23	58.56
Hispanic		37.26		58.29	70.28	58.35
Asian		78.43		59.14	64.75	53.32
Native Hawaiian/Pac. Islander		40.27		65.54	83.46	78.42
Am. Indian & Alaska Native		34.86		60.21	71.67	67.03

Source: NERA calculations using 2007 SBO. Notes: (A) Figures are rounded. Rounding was performed subsequent to any mathematical calculations. (B) Excludes publicly-owned, foreign-owned, and not-for-profit firms. (C) "n/a" indicates that data were not disclosed due to confidentiality or other publication restrictions.

Disparities between the fraction of firms that are minority- or women-owned and their fraction of sales and receipts in Texas are observed for African Americans, Hispanics, Asians, Native Americans, Native Hawaiians and Pacific Islanders and women, both for employer firms and nonemployer firms. The disparity indices are presented in Panel C of each table. Disparity indices of approximately 80 percent or less indicate disparate impact consistent with business discrimination (0 percent being complete disparity and 100 percent being full parity). In Texas (Table 4.14), the sales and receipts disparity indices (in columns 2 and 4) fall at or below the 80 percent threshold in 9 out of 12 cases. All of these disparity indices are statistically significant within a 95 percent confidence interval.

Table 4.14. Disparity Ratios from the 2007 Survey of Business Owners, State of Texas, All Industries

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	2,111,601	858,627,169	338,463	775,650,085	4,159,621	138,975,158
Nonminority Male	701,799	566,436,396	151,273	532,507,640	2,471,982	92,019,512
Female	609,947	96,803,111	61,546	82,099,584	588,474	16,826,122
African American	154,283	9,280,648	7,205	6,147,658	72,652	1,646,570
Hispanic	447,589	61,895,886	41,283	45,672,015	395,673	9,929,303
Asian	114,297	40,209,344	29,162	36,222,156	206,545	5,311,859
Native Hawaiian/Pac. Islander	1,196	376,969	161	333,851	1,106	41,064
Am. Indian & Alaska Native	18,997	3,683,877	1,478	2,984,437	13,168	494,351
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	33.24%	65.97%	44.69%	68.65%	59.43%	66.21%
Female	28.89%	11.27%	18.18%	10.58%	14.15%	12.11%
African American	7.31%	1.08%	2.13%	0.79%	1.75%	1.18%
Hispanic	21.20%	7.21%	12.20%	5.89%	9.51%	7.14%
Asian	5.41%	4.68%	8.62%	4.67%	4.97%	3.82%
Native Hawaiian/Pac. Islander	0.06%	0.04%	0.05%	0.04%	0.03%	0.03%
Am. Indian & Alaska Native	0.90%	0.43%	0.44%	0.38%	0.32%	0.36%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		198.49%		153.61%	132.97%	148.15%
Female		39.03%		58.21%	77.80%	66.58%
African American		14.79%		37.23%	82.05%	55.66%
Hispanic		34.01%		48.28%	77.99%	58.58%
Asian		86.52%		54.20%	57.63%	44.36%
Native Hawaiian/Pac. Islander		77.51%		90.48%	55.90%	62.12%
Am. Indian & Alaska Native		47.69%		88.11%	72.49%	81.46%

Source and Notes: See Table 4.13.

Table 4.15 shows comparable SBO data for the Construction and Construction-related Professional Services ("AE-CRS") sector in the U.S. as a whole. Here, adverse disparities are evident for African Americans, Hispanics, Asians, Native Americans, Native Hawaiians and Pacific Islanders, and women.[92] For example, although African Americans account for 4.10 percent of all firms in the Construction and AE-CRS sector, they earn only 1.15 percent of all sales and receipts in that sector. Hispanics account for 7.44 percent of firms but only 3.52 percent of sales and receipts. For Asians, the figures are 4.02 percent and 2.71 percent, respectively. For Native Americans, the figures are 0.87 percent and 0.49 percent, respectively. For Native Hawaiians and Pacific Islanders, the figures are 0.12 percent and 0.10 percent, respectively. Finally, women account for 19.31 percent of all Construction and AE-CRS firms but earned only 9.08 percent of all sales and receipts.

[92] The sole exception being Native Hawaiian and Pacific Islander-owned firms with paid employees.

Among firms with paid employees, adverse disparities are observed for African Americans, Hispanics, Asians, Native Americans, and women. Overall, disparities in this category are slightly less acute than among firms as a whole. However, they remain far larger than the comparable figure for nonminority male-owned firms. This is evident in that the fraction of employer firms compared to the fraction of all firms is far higher among nonminority males than among other race and gender groups. In Table 4.15, for example, nonminority males represent 54.37 percent of all firms but 62.74 percent of employer firms. For all other groups, the direction of this ratio is reversed. That is, each group's fraction among employer firms is substantially smaller than its fraction among firms as a whole, whereas for nonminority males it is larger.

Table 4.15. Disparity Ratios from the 2007 Survey of Business Owners, United States, Construction and AE-CRS

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	7,069,005	2,247,219,546	1,473,633	1,968,365,597	10,803,954	515,161,851
Nonminority Male	3,843,180	1,649,355,770	924,548	1,483,625,570	7,664,496	381,436,430
Female	1,365,249	203,964,647	196,614	165,319,338	1,124,710	49,343,438
African American	289,579	25,787,994	22,521	18,937,276	135,685	5,647,555
Hispanic	526,190	79,164,324	63,055	58,649,224	390,113	15,224,090
Asian	284,427	61,003,128	48,732	51,923,279	303,058	17,195,039
Native Hawaiian/Pac. Islander	8,610	2,161,094	1,311	1,853,781	9,923	509,611
Am. Indian & Alaska Native	61,579	11,032,792	8,047	8,831,344	51,974	2,228,594
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	54.37%	73.40%	62.74%	75.37%	70.94%	74.04%
Female	19.31%	9.08%	13.34%	8.40%	10.41%	9.58%
African American	4.10%	1.15%	1.53%	0.96%	1.26%	1.10%
Hispanic	7.44%	3.52%	4.28%	2.98%	3.61%	2.96%
Asian	4.02%	2.71%	3.31%	2.64%	2.81%	3.34%
Native Hawaiian/Pac. Islander	0.12%	0.10%	0.09%	0.09%	0.09%	0.10%
Am. Indian & Alaska Native	0.87%	0.49%	0.55%	0.45%	0.48%	0.43%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		135.00		120.14	113.07	118.02
Female		47.00		62.95	78.02	71.79
African American		28.01		62.95	82.18	71.73
Hispanic		47.33		69.63	84.39	69.06
Asian		67.47		79.77	84.82	100.93
Native Hawaiian/Pac. Islander		78.96		105.86	103.24	111.19
Am. Indian & Alaska Native		56.36		82.16	88.10	79.22

Source and Notes: See Table 4.13.

Table 4.16 shows results for the Construction and AE-CRS sector in Texas. Among all firms in Construction and AE-CRS, large disparities are observed for African Americans, Hispanics, Asians, Native Americans and women. Among firms with paid employees, large disparities are observed for African Americans, Hispanics, Asians and women.[93] As in Table 4.15, nonminority males have a much higher ratio of employer firms to firms as a whole than do minorities or women.

Table 4.16. Disparity Ratios from the 2007 Survey of Business Owners, State of Texas, Construction and AE-CRS

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	577,727	168,582,260	88,239	141,837,348	759,356	36,688,005
Nonminority Male	244,007	112,868,557	46,981	100,673,944	496,040	25,676,048
Female	105,085	16,582,726	13,023	13,368,143	89,104	3,925,256
African American	22,603	1,476,877	1,331	941,172	7,876	298,790
Hispanic	127,054	15,096,003	9,712	8,856,325	62,700	2,255,684
Asian	17,759	3,338,580	2,539	1,850,978	12,044	747,165
Native Hawaiian/Pac. Islander	n/a	n/a	n/a	n/a	n/a	n/a
Am. Indian & Alaska Native	6,819	1,147,833	539	832,574	5,233	222,373
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	42.24%	66.95%	53.24%	70.98%	65.32%	69.98%
Female	18.19%	9.84%	14.76%	9.42%	11.73%	10.70%
African American	3.91%	0.88%	1.51%	0.66%	1.04%	0.81%
Hispanic	21.99%	8.95%	11.01%	6.24%	8.26%	6.15%
Asian	3.07%	1.98%	2.88%	1.31%	1.59%	2.04%
Native Hawaiian/Pac. Islander	n/a	n/a	n/a	n/a	n/a	n/a
Am. Indian & Alaska Native	1.18%	0.68%	0.61%	0.59%	0.69%	0.61%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		158.52%		133.31%	122.69%	131.44%
Female		54.08%		63.86%	79.51%	72.49%
African American		22.39%		43.99%	68.76%	53.99%
Hispanic		40.72%		56.73%	75.02%	55.86%
Asian		64.42%		45.35%	55.12%	70.78%
Native Hawaiian/Pac. Islander		n/a		n/a	n/a	n/a
Am. Indian & Alaska Native		57.69%		96.10%	112.82%	99.23%

Source and Notes: See Table 4.13.

Table 4.17 shows comparable SBO data for the Goods and Services sector in the U.S. as a whole. Here, adverse disparities are evident for African Americans, Hispanics, Asians, Native Americans, Native Hawaiians and Pacific Islanders, and women. African Americans, for example, account for 8.49 percent of all firms in the Goods and Services sector, they earned only

[93] Results for Native Hawaiians & Pacific Islanders were suppressed by the Census to avoid compromising confidentiality restrictions.

1.26 percent of all sales and receipts in that sector. Hispanics account for 9.02 percent of firms but only 3.12 percent of sales and receipts. For Asians, the figures are 6.58 percent and 5.11 percent, respectively. For Native Americans, the figures are 0.91 percent and 0.27 percent, respectively. For Native Hawaiians and Pacific Islanders, the figures are 0.15 percent and 0.05 percent, respectively. Finally, women account for 33.43 percent of all Goods and Services firms but earned only 11.41 percent of all sales and receipts. Comparable, though slightly smaller, disparities are observed as well among firms with paid employees in the Goods and Services sector.

Table 4.17. Disparity Ratios from the 2007 Survey of Business Owners, United States, Goods and Services

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	19,225,855	8,702,242,328	3,716,335	8,046,777,365	45,822,600	1,425,411,093
Nonminority Male	7,100,456	6,075,919,606	1,829,323	5,772,134,941	29,473,643	1,005,346,307
Female	6,426,866	992,643,357	713,047	849,047,010	6,395,411	165,329,962
African American	1,632,285	109,951,840	84,045	78,207,622	773,867	17,687,237
Hispanic	1,734,079	271,496,919	185,797	221,271,483	1,518,048	39,071,418
Asian	1,265,132	445,044,623	348,694	401,650,915	2,504,713	62,035,420
Native Hawaiian/Pac. Islander	29,077	4,158,263	2,840	3,396,520	27,878	707,527
Am. Indian & Alaska Native	175,112	23,321,050	15,615	18,662,731	133,063	3,701,653
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	36.93%	69.82%	49.22%	71.73%	64.32%	70.53%
Female	33.43%	11.41%	19.19%	10.55%	13.96%	11.60%
African American	8.49%	1.26%	2.26%	0.97%	1.69%	1.24%
Hispanic	9.02%	3.12%	5.00%	2.75%	3.31%	2.74%
Asian	6.58%	5.11%	9.38%	4.99%	5.47%	4.35%
Native Hawaiian/Pac. Islander	0.15%	0.05%	0.08%	0.04%	0.06%	0.05%
Am. Indian & Alaska Native	0.91%	0.27%	0.42%	0.23%	0.29%	0.26%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		189.05		145.73	130.67	143.28
Female		34.12		54.99	72.74	60.45
African American		14.88		42.98	74.68	54.87
Hispanic		34.59		55.00	66.26	54.83
Asian		77.72		53.20	58.26	46.38
Native Hawaiian/Pac. Islander		31.59		55.23	79.61	64.95
Am. Indian & Alaska Native		29.42		55.20	69.11	61.81

Source and Notes: See Table 4.13.

Finally, Table 4.18 shows comparable results for the Goods and Services sector in Texas. Among all firms in Goods and Services, adverse disparities are observed for African Americans, Hispanics, Asians, Native Americans and women. Among firms with paid employees, adverse disparities are observed for African Americans, Hispanics, Asians, Native Americans and women. As in Table 4.17, nonminority males have a much higher ratio of employer firms to firms as a whole than do minorities or women. In the Texas Goods and Services sector, the sales and receipts disparity indices fall at or below the 80 percent threshold in 8 out of 10 cases. All of these disparity indices are statistically significant within a 95 percent confidence interval.

Table 4.18. Disparity Ratios from the 2007 Survey of Business Owners, State of Texas, Goods and Services

	Number of Firms	Sales and Receipts ($000s)	Employer Firms	Sales and Receipts ($000s)	Employees	Payroll ($000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
All Firms	1,533,874	690,044,909	250,224	633,812,737	3,400,265	102,287,153
Nonminority Male	457,792	453,567,839	104,292	431,833,696	1,975,942	66,343,464
Female	504,862	80,220,385	48,523	68,731,441	499,370	12,900,866
African American	131,680	7,803,771	5,874	5,206,486	64,776	1,347,780
Hispanic	320,535	46,799,883	31,571	36,815,690	332,973	7,673,619
Asian	96,538	36,870,764	26,623	34,371,178	194,501	4,564,694
Native Hawaiian/Pac. Islander	n/a	n/a	n/a	n/a	n/a	n/a
Am. Indian & Alaska Native	12,178	2,536,044	939	2,151,863	7,935	271,978
Panel B. Column Percentages						
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Nonminority Male	29.85%	65.73%	41.68%	68.13%	58.11%	64.86%
Female	32.91%	11.63%	19.39%	10.84%	14.69%	12.61%
African American	8.58%	1.13%	2.35%	0.82%	1.91%	1.32%
Hispanic	20.90%	6.78%	12.62%	5.81%	9.79%	7.50%
Asian	6.29%	5.34%	10.64%	5.42%	5.72%	4.46%
Native Hawaiian/Pac. Islander	n/a	n/a	n/a	n/a	n/a	n/a
Am. Indian & Alaska Native	0.79%	0.37%	0.38%	0.34%	0.23%	0.27%
Panel C. Disparity Ratios		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Nonminority Male		220.24%		163.47%	139.42%	155.62%
Female		35.32%		55.92%	75.73%	65.04%
African American		13.17%		34.99%	81.15%	56.13%
Hispanic		32.46%		46.04%	77.61%	59.46%
Asian		84.90%		50.97%	53.76%	41.94%
Native Hawaiian/Pac. Islander		n/a		n/a	n/a	n/a
Am. Indian & Alaska Native		46.29%		90.47%	62.19%	70.86%

Source and Notes: See Table 4.13.

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V. Statistical Disparities in Capital Markets

A. Introduction

Discrimination occurs whenever the terms of a transaction are affected by personal characteristics of the participants that are not relevant to the transaction. Among such characteristics, the most commonly considered are race, ethnicity and gender. In labor markets, this might translate into equally productive workers in similar jobs being paid different salaries because of their race, ethnicity or gender. In credit markets, it might translate into loan approvals differing across racial or gender groups with otherwise similar financial backgrounds.

In this chapter, we examine whether there is evidence consistent with the presence of discrimination in the small business credit market against minority-owned or women-owned small businesses. Discrimination in the credit market against such businesses can have an important effect on the likelihood that they will succeed. Moreover, discrimination in the credit market might even prevent businesses from opening in the first place, might negatively impact the size a firm could obtain, and/or shorten its longevity in the market.[94]

In our analysis, we use data from the Federal Reserve Board to examine the existence or otherwise of discrimination in the small business credit market for 1993, 1998 and 2003. These surveys are based on a large representative sample of firms with fewer than 500 employees and are administered by the Federal Reserve Board and the U.S. Small Business Administration. The 1993 and 1998 surveys deliberately oversampled minority-owned firms but the 2003 survey did not.[95]

We also present in this Chapter analyses of data covering 2003 through 2010 using two additional datasets. However, as discussed in more detail below, the availability of relevant data after 2003 is severely restricted due to the Federal Reserve Board's unfortunate decision to cancel the *Survey of Small Business Finances*; which was the principal source of information on the access of small M/WBEs to commercial credit and capital.

The analyses presented in this Chapter provide qualitative and quantitative evidence consistent with the presence of discrimination against minorities in the credit market for small businesses. For example, we find that African American-owned firms are much more likely to report being seriously concerned with credit market problems and report being less likely to apply for credit because they fear the loan would be denied. Moreover, after controlling for a large number of characteristics of the firms, we find that African American-owned firms, Hispanic-owned firms, and to a lesser extent other minority-owned firms, are substantially and statistically significantly

[94] Again, as noted in Chapter IV, these factors also illustrate why, in a disparity study intended to answer the question of whether discrimination is present in business enterprise, adjusting availability for "capacity" factors such as firm age, firm size or firm revenues, is not a legitimate practice when there is evidence that suggests that these factors themselves are tainted by discrimination. To do so would be to inappropriately introduce one or more endogenous variables into the analysis.

[95] The 2003 survey took other steps, however, to increase the likelihood that minority-owned and women-owned firms were captured in the sampling frame. For more details, see National Opinion Research Center (2005), p. 11.

more likely to be denied credit than are nonminority-owned firms. We find some evidence that women are discriminated against in this market as well. The principal results are as follows:

- Minority-owned firms were more likely to report that they did not apply for a loan over the preceding three years because they feared the loan would be denied (see Tables 5.15, 5.22, 5.29).

- When minority-owned firms applied for a loan, their loan requests were substantially more likely to be denied than non-minorities, even after accounting for differences like firm size and credit history (see Tables 5.8, 5.9, 5.18, 5.19, 5.25, 5.26).

- When minority-owned firms *did* receive a loan, they were obligated to pay higher interest rates on the loans than comparable nonminority-owned firms (see Tables 5.13, 5.14, 5.21, 5.27).

- A larger proportion of minority-owned firms than nonminority-owned firms report that credit market conditions are a serious concern (see Tables 5.3, 5.4, 5.5, 5.6, 5.7, 5.17, 5.24).

- A larger share of minority-owned firms than nonminority-owned firms believes that the availability of credit is the most important issue likely to confront them in the upcoming year (see Tables 5.5, 5.6).

- There is no evidence that discrimination in the market for credit is significantly different in the West South Central census region or in the construction and construction-related professional services industries than it is in the nation or the economy as a whole (various tables).

- There is no evidence that the level of discrimination in the market for credit has diminished between 1993 and 2003 (various tables).

The structure of this chapter is as follows. First, we outline the main theories of discrimination and discuss how they might be tested. Second, we examine the evidence on the existence of capital/liquidity constraints facing individuals in the mortgage market, households in the non-mortgage loan market, and for small businesses in the commercial credit market. Third, we describe the data files used in the remainder of the chapter and then examine in more detail problems faced by minority-owned firms in obtaining credit. Fourth, we provide a series of answers to criticisms. Finally, we present our conclusions.

We begin with the 1993 dataset and continue chronologically through the 2003 dataset and then to evidence from NERA's own comparable surveys conducted in various geographies between 1999 and 2007. This chronological progression allows the reader to see the consistency of the main findings over time. This approach serves as well to demonstrate the value of over-sampling minority and female small business owners, as was the case in the 1993 and 1998 surveys, but

not the 2003 survey. Unfortunately, the much anticipated 2008 survey results never materialized because the Federal Reserve cancelled this important survey effort.[96]

B. Theoretical Framework and Review of the Literature

Most recent economic studies of discrimination draw on the analyses contained in Gary Becker's (1957) *The Economics of Discrimination*. Becker's main contribution was to translate the notion of discrimination into financial terms. Discrimination, in this view, results from the desire of owners, workers, or customers to avoid contact with certain groups. This being the case, transactions with the undesired groups would require more favorable terms than those that occur with a desired group. Assume that the primary objective of a financial institution is to maximize their expected profits. The expected return on a loan will depend on the interest rate charged and the likelihood that a borrower defaults. The financial institution would approve any loan for which the expected return on the loan exceeded the cost of the funds to the institution. Discrimination would then result in either (a) higher interest rates being charged to undesired groups having otherwise similar characteristics to the desired group, or (b) requiring better characteristics (*i.e.*, a lower expected default rate) from the undesired group at any given interest rate. In other words, applicants from the disadvantaged group might either be appraised more rigorously or be given less favorable terms on the loan.

A similar connection between the likelihood of loan approval and the race, ethnicity or gender of the applicant might also be found if lenders employ statistical discrimination—meaning that lenders use personal characteristics such as race, ethnicity or gender to infer the likelihood of default on the loan. If experience has suggested that certain groups of individuals are on average more or less likely to default, then the lender may use this information to economize on the costs of gathering more directly relevant information. Hence, discrimination would not reflect the preferences of the owner but would rather reflect an attempt to minimize costs. Empirically, the racial, ethnic or gender characteristics of the applicant could proxy for unobserved characteristics of their creditworthiness.

There has been an active debate about whether banks discriminate against minority applicants for mortgages. In particular, banks were often accused of "redlining"—that is, not granting loans for properties located in certain areas. To analyze that issue, the Home Mortgage Disclosure Act was passed to require lenders to disclose information on the geographic location of their home mortgage loans. These data, however, were not sufficient to assess whether or not there was discrimination in the market for mortgage loans.

In 1992, researchers at the Federal Reserve Bank of Boston collected additional information from mortgage lenders (Munnell, et al., 1996). In particular, they tried to collect any information that might be deemed economically relevant to whether a loan would be approved. In the raw data, non-minorities had 10 percent of their loans rejected whereas rejection rates were 28 percent for both African Americans and Hispanics. Even after the creditworthiness of the borrowers (including the amount of the debt, debt-to-income ratio, credit history, loan characteristics, *etc*.) were controlled for, African Americans were still found to be 7 percentage

[96] For more on this, see fn. 145 below.

points less likely to be granted the loan. A variety of criticisms have been launched at this study (see, for example, Horne, 1994; Day and Liebowitz, 1998; Harrison, 1998). Responses to these criticisms are found in Browne and Tootell (1995).

In addition to the type of statistical analysis done in the Munnell, et al. (1996) study, two other approaches have been used to measure discrimination in mortgage markets. First, Federal Reserve regulators can examine a lending institution's files to try to identify any cases where a loan rejection looks suspicious. Second, audit studies have been used with paired "identical" applicants. Such studies have also found evidence of discrimination (*c.f.* Cloud and Galster, 1993) although the audit approach is not without its critics (Heckman, 1998).

Another relevant subset of the literature is concerned with the severity of liquidity constraints affecting consumers in non-mortgage credit markets. A consumer is said to be liquidity-constrained when lenders refuse to make the household a loan or offer the household less than they wished to borrow (Ferri and Simon, 1997). Many studies have suggested that roughly twenty percent of U.S. families are liquidity-constrained (*c.f.* Hall and Mishkin, 1982; and Jappelli, 1990). As might be expected, liquidity-constrained households are typically younger, with less wealth and accumulated savings (Hayashi, 1985; and Jappelli, 1990). The research shows minority households to be substantially more likely to be liquidity-constrained even when a variety of financial characteristics of households are controlled for (Jappelli, 1990; and Ferri and Simon, 1997).

We now turn to the more directly relevant evidence on liquidity constraints facing small businesses. Just like individuals and households, businesses can also face liquidity constraints.[97] Liquidity constraints can be a problem in starting a business as well as in running it. Discrimination in the credit market against minority-owned small businesses can have a devastating effect on the success of such businesses, and even prevent them from opening in the first place. Evidence of the latter effect is provided in the economics literature on self-employment.[98]

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[97] Evans and Leighton (1989) and Evans and Jovanovic (1989) have argued formally that entrepreneurs face difficulties borrowing money. As in the discussion above, such individuals are labeled liquidity constrained by economists. Using data from the National Longitudinal Survey of Youth from 1966-1981 and the Current Population Surveys from 1968-1987, these authors found that, all else equal, people with greater family assets are more likely to switch to self-employment from employment. Blanchflower and Oswald (1998) studied the probability that an individual reports him or herself as self-employed. Consistent with the existence of capital constraints on potential entrepreneurs, their econometric estimates imply that the probability of being self-employed depends positively upon whether the individual ever received an inheritance or gift. Additionally, when directly questioned in interview surveys, potential entrepreneurs say that raising capital is their principal problem. Holtz-Eakin, et al. (1994a, 1994b) examine flows in and out of self-employment and find that inheritances both raise entry and slow exit. Black, de Meza and Jeffreys (1996) find that housing equity plays an important role in shaping the supply of entrepreneurs. Lindh and Ohlsson (1996) suggest that the probability of being self-employed increases when people receive windfall gains in the form of lottery winnings and inheritances.

[98] *See* Chapter IV, above.

In his 2003 report for *Builders Association of Greater Chicago v. the City of Chicago*,[99] Bates argued that "from its origins, the black-business community has been constrained by limited access to credit, limited opportunities for education and training, and nonminority stereotypes about suitable roles for minorities in society" (Bates, 1989; Bates, 1993; Bates, 1973). Indeed, as Bates points out, Gunner Myrdal observed,

> The Negro businessman … encounters greater difficulties than whites in securing credit. This is partly due to the marginal position of Negro business. It is also partly due to prejudicial opinions among whites concerning business ability and personal reliability of Negroes. In either case a vicious circle is in operation keeping Negro business down."[100]

Bates goes on to argue that commercial banks lend most easily to nonminority males who possess significant amounts of equity capital to invest in their businesses (Bates, 1991a). Apart from banks, an important source of debt capital for small business is likely to be family and friends, but the low wealth of African American households reduces the availability of debt capital that family and friends could invest in small business operations (Bates, 1993; Bates, 1991b).

Additional evidence indicates that capital constraints for African American-owned businesses are particularly large. For instance, Bates (1989) finds that racial differences in levels of financial capital do have a significant effect upon racial patterns in business failure rates. Fairlie and Meyer (1996) find that racial groups with higher levels of unearned income have higher levels of self-employment. In an important paper, Fairlie (1999) uses data from the 1968-1989 Panel Study of Income Dynamics to examine why African American men are one-third as likely to be self-employed as nonminority men. The author finds that the large discrepancy is due to an African American transition rate into self-employment that is approximately one half the nonminority rate and an African American transition rate out of self-employment that is twice the nonminority rate. He finds that capital constraints—measured by interest income and lump-sum cash payments—significantly reduce the flow into self-employment from wage/salary work, with this effect being nearly seven times larger for self-employed African Americans than for nonminority self-employed persons. Fairlie then attempts to decompose the racial gap in the transition rate into self-employment into a part due to differences in the distributions of individual characteristics and a part due to differences in the processes generating the transitions. He finds that differences in the distributions of characteristics between African Americans and non-minorities explain only a part of the racial gap in the transition rate into self-employment. In addition, racial differences in specific variables, such as levels of assets and the likelihood of having a self-employed father provide important contributions to the gap. He concludes, however, that "the remaining part of the gap is large and is due to racial differences in the coefficients. Unfortunately, we know much less about the causes of these differences. They may be partly caused by lending or consumer discrimination against blacks" (1999, p. 14).

There is also research into racial differences in access to credit among small businesses. Cavalluzzo and Cavalluzzo (1998) use data from the 1988-1989 National Survey of Small

[99] 298 F.Supp.2d 725 (N.D. Ill. 2003).

[100] G. Myrdal (1944, p. 308).

Business Finances (NSSBF), conducted by the Board of Governors of the Federal Reserve System, to analyze differences in application rates, denial rates, and other outcomes by race, ethnicity and gender in a manner similar to the econometric models reported in this Study. This paper documents that a large discrepancy exists in credit access between non-minorities and minority-owned firms that cannot be explained by a handful of firm characteristics. Unfortunately, the earlier NSSBF data did not over-sample minority-owned firms and included limited information on a firm's credit history and that of its owner, reducing the ability to provide a powerful test of the causal impact of race, ethnicity or gender on loan decisions. In an unpublished paper, Cole (1998) uses the 1993 NSSBF and estimates models of loan denials similar in nature to those discussed in this Study.

The present analysis takes advantage of the 1993 NSSBF data, the 1998 Survey of Small Business Finances (SSBF) data, and the 2003 SSBF data. All three datasets have better information on creditworthiness than did the earlier NSSBF data, and the 1993 and 1998 surveys have a larger sample of minority-owned firms than did the earlier NSSBF data. These datasets are also used to conduct an extensive set of specification checks designed to weigh the possibility that our results are subject to alternative interpretations.

C. Empirical Framework and Description of the Data

1. Introduction

Disputes about discrimination typically originate in differences in the average outcomes for two groups. To determine whether a difference in the loan denial rate for African American-owned firms compared to nonminority-owned firms is consistent with discrimination, it is necessary to compare African American- and nonminority-owned firms that have similar risks of default; that is, the fraction of the African American firms' loans that would be approved if they had the same creditworthiness as the nonminority-owned firms. A standard approach to this problem is to statistically control for firms' characteristics relevant to the loan decision. If African American-owned firms with the same likelihood of default as nonminority-owned firms are less likely to be approved, then it is appropriate to attribute such a difference to discrimination.

Following Munnell, et al. (1996) we estimated the following loan denial equation:

$$\text{(1)} \qquad \text{Prob}(D_i = 1) = \Phi(\beta_0 + \beta_1 CW_i + \beta_2 X_i + \beta_3 R_i),$$

where D_i represents an indicator variable for loan denial for firm *i* (that is, 1 if the loan is denied and 0 if accepted), CW represents measures of creditworthiness, X represents other firm characteristics, R represents the race, ethnicity or gender of the firm's ownership, and Φ is the cumulative normal probability distribution.[101] This econometric model can be thought of as a reduced form version of a structural model that incorporates firms' demand for and financial institutions' supply of loan funds as a function of the interest rate and other factors.[102] Within the

[101] Additional discussion of Probit regression appears in Chapter IV, Section C.1.

[102] Maddala and Trost (1994) describe two variants of such a model, one in which the interest rate is exogenous and another in which the interest rate is endogenously determined, but is capped so that some firms' loan applications are approved and others are rejected. If the interest rate is exogenous, they show that a reduced form

framework of this model, a positive estimate of β_3 is consistent with the presence of discrimination.[103]

2. 1993 NSSBF Data

The 1993 NSSBF data contain substantial information regarding credit availability on a nationally representative target sample of for-profit, non-farm, non-financial business enterprises with fewer than 500 employees. The survey was conducted during 1994 and 1995 for the Board of Governors of the Federal Reserve System and the U.S. Small Business Administration; the data relate to the years 1992 and 1993. The data file used here contains 4,637 firms.[104] In this NSSBF file, minority-owned firms were over-sampled, but sampling weights are provided to generate nationally representative estimates. Of the firms surveyed, 9.5 percent were owned by African Americans, 6.4 percent were owned by Hispanics, and 7.4 percent were owned by individuals of other races (*i.e.*, Asians/Pacific Islanders, Native Americans).[105]

Table 5.1 presents population-weighted sample means from these data for all firms in the sample that applied for credit. The estimates indicate that African American-owned firms are almost 2.5 times more likely to have a loan application rejected as are non-Hispanic White-owned firms (hereafter "nonminority") (65.9 percent versus 26.9 percent).[106] Other minority groups are denied at rates higher than nonminorities as well, but the magnitude of the African American-to-nonminority differential is particularly large.

Minority-owned firms, however, do have characteristics that are different from those of nonminority-owned firms, and such differences may contribute to the gap in loan denial rates. For instance, minority-owned firms were younger, smaller (whether measured in terms of sales or employment), more likely to be located in urban areas, and more likely to have an owner with fewer years of experience than their nonminority counterparts. Minority firms were also less

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model which controls for the loan amount, such as we report below, uniquely identifies supply-side differences in the treatment of African American-owned firms. If the interest rate is endogenous, a reduced form approach requires an assumption that the determinants of demand for non-minority and African American-owned firms are identical, other things being equal. The main alternative empirical strategy is to estimate a structural supply and demand model, in which proper identification generally is not feasible. Any characteristic of the borrower that affects his/her expected rate of return on the investment will affect his/her ability to repay and should be taken into consideration by the lender as well. For instance, in their structural model of mortgage decisions, Maddala and Trost (1994) impose questionable exclusion restrictions, like omitting marital status from the loan supply equation.

[103] The Equal Credit Opportunity Act prohibits discrimination in access to credit by race and would apply to both Becker-type and statistical discrimination.

[104] The median size of firms in the sample was 5.5 and mean size was 31.6 full-time equivalent employees; 440 firms out of 4,637 had 100 or more full-time equivalent employees.

[105] There were also two firms in the "Other race" category in 1993 that reported multiple or mixed race.

[106] Cavalluzzo and Cavalluzzo (1998) examined these outcomes using the 1987 NSSBF and similarly found that denial rates (weighted) are considerably higher for minorities. Nonminority-owned firms had a denial rate for loans of 22 percent compared with 56 percent for African Americans, 36 percent for Hispanics, and 24 percent for other races, which are broadly similar to the differences reported here. These estimates for minority groups are estimated with less precision, however, because of the smaller number of minority-owned firms in the 1987 sample.

creditworthy, on average, than their nonminority counterparts, as measured by whether (a) the owner had legal judgments against him or her over the previous three years, (b) the firm had been delinquent for more than 60 days on business obligations over the preceding three years, or (c) the owner had been delinquent for more than 60 days on personal obligations over the prior three years. Additionally, compared to nonminority-owned firms, African American-owned firms were also more likely, on average, to have owners who had declared bankruptcy over the preceding seven years.

Minority-owned firms also sought smaller amounts of credit than nonminority-owned firms. This was particularly true for African American-owned firms, who requested loans that were, on average, about 60 percent smaller than those requested by nonminority-owned firms, and Hispanic-owned firms, who requested loans about 42 percent smaller than those requested by nonminority-owned firms.

The NSSBF database does not identify the specific city or state where the firm is located; instead, data are reported for four census regions, nine census divisions, and urban or rural location. Table 5.2 presents evidence for the West South Central (WSC) division, which includes the City of San Antonio Market Area, the balance of the State of Texas and three surrounding states.[107] This WSC sample includes 515 firms, of which the owners of 223 firms reported that they had applied for a loan over the preceding three-year period.

The overall denial rate in the WSC is slightly higher than the national rate reported in Table 5.1, but this difference is not statistically significant. The difference in the denial rates between African American-owned firms and nonminority-owned firms is also slightly larger in the WSC (39.0 percentage points nationally and 43.3 percentage points in the WSC), but again this difference is not statistically significant. On balance, however, the weighted sample means are not statistically significantly different in the WSC than in the nation as a whole—either overall or by race, ethnicity or gender.

[107] The West South Central division includes Arkansas, Louisiana, Oklahoma and Texas.

Table 5.1. Selected Population-Weighted Sample Means of Loan Applicants from 1993 NSSBF Data

	All	Non-minority	African American	Hispanic	Other Races
% of Firms Denied in the Last Three Years	28.8	26.9	65.9	35.9	39.9
Credit History of Firm/Owners					
% Owners with Judgments Against Them	4.8	4.1	16.9	5.2	15.2
% Firms Delinquent in Business Obligations	24.2	23.1	49.0	25.1	31.6
% Owners Delinquent on Personal Obligations	14.0	12.6	43.4	14.8	24.5
% Owners Declared Bankruptcy in Past 7yrs	2.4	2.4	5.3	2.0	0.8
Other Firm Characteristics					
% Female-Owned	17.9	18.1	18.2	9.7	23.1
Sales (in 1,000s of 1992 $)	1795.0	1870.6	588.6	1361.3	1309.1
Profits (in 1,000s of 1992 $)	86.7	84.5	59.9	189.5	54.0
Assets (in 1,000s of 1992 $)	889.4	922.5	230.3	745.6	747.3
Liabilities (in 1,000s of 1992 $)	547.4	572.8	146.2	308.6	486.0
Owner's Years of Experience	18.3	18.7	15.3	15.9	14.9
Owner's Share of Business	77.1	76.5	86.4	83.9	77.1
% <= 8th Grade Education	0.8	0.7	0.0	3.4	1.0
% 9th-11th Grade Education	2.2	2.2	3.7	1.8	1.2
% High School Graduate	19.6	19.7	12.8	27.7	14.9
% Some College	28.0	28.3	36.0	20.6	19.8
% College Graduate	29.2	29.2	28.0	24.1	36.5
% Postgraduate Education	20.2	19.9	19.5	22.3	26.6
% Line of credit	48.7	49.1	35.8	52.8	43.7
Total Full-time Employment in 1990	11.4	11.8	6.8	9.3	8.8
Total Full-time Employment in 1992	13.6	13.9	8.3	10.8	12.3
Firm age, in years	13.4	13.6	11.5	13.3	9.3
% New Firm Since 1990	9.4	9.4	13.0	6.4	9.5
% Firms Located in MSA	76.5	75.1	91.2	90.7	85.7
% Sole Proprietorship	32.8	32.3	48.6	38.2	24.2
% Partnership	7.8	7.8	7.7	6.7	7.9
% S Corporation	26.1	27.1	11.7	13.7	27.1
% C Corporation	33.4	32.8	32.1	41.4	40.8
% Existing Relationship with Lender	24.6	24.7	12.8	29.6	25.7
% Firms with Local Sales Market	54.1	54.7	42.9	55.0	47.4
Characteristics of Loan Application					
Amount Requested (in 1,000s of 1992 $)	300.4	310.8	126.5	179.1	310.5
% Loans to be Used for Working Capital	8.4	8.8	4.9	4.6	5.5
% Loans to be Used for Equipment/Machinery	2.3	2.4	1.7	0.2	0.6
% Loans to be Used for Land/Buildings	0.4	0.4	0.9	0.0	0.0
% Loans to be Backed by Real Estate	28.3	28.6	24.7	26.2	24.7
Sample Size (unweighted)	2,007	1,648	170	96	93

Source: NERA calculations from 1993 NSSBF.

Notes: (1) Sample weights are used to provide statistics that are nationally representative of all small businesses. (2) Sample restricted to firms that applied for a loan over the preceding three years.

Table 5.2. Selected Sample Means of Loan Applicants—WSC

	All	Non-Minority	African American	Hispanic	Other Races
% of Firms Denied in the Last Three Years	30.3	28.1	71.4	18.6	49.5
Credit History of Firm/Owners					
% Owners with Judgments Against Them	5.9	3.6	32.9	4.9	20.1
% Firms Delinquent in Business Obligations	25.3	22.9	56.6	11.2	57.6
% Owners Delinquent on Personal Obligations	12.6	9.0	62.4	7.0	35.6
% Owners Declared Bankruptcy in Past 7yrs	3.1	3.0	5.7	4.7	0.0
Other Firm Characteristics					
% Female-Owned	22.3	22.7	22.2	14.7	29.3
Sales (in 1,000s of 1992 $)	1556.0	1715.7	279.3	1072.8	1044.6
Profits (in 1,000s of 1992 $)	109.6	127.4	44.1	73.6	-20.8
Assets (in 1,000s of 1992 $)	759.2	848.0	173.6	316.2	657.7
Liabilities (in 1,000s of 1992 $)	402.8	446.9	55.4	117.7	482.4
Owner's Years of Experience	17.9	18.9	12.9	15.4	12.4
Owner's Share of Business	78.8	77.1	92.9	91.6	71.6
% <= 8th Grade Education	1.8	0.8	0.0	12.5	0.0
% 9th-11th Grade Education	2.6	3.0	0.0	0.0	3.1
% High School Graduate	13.7	11.5	0.0	23.7	33.7
% Some College	25.7	26.3	59.6	20.8	3.6
% College Graduate	31.9	33.6	31.6	25.6	19.2
% Postgraduate Education	24.4	24.7	8.8	17.4	40.5
% Line of credit	45.7	44.4	16.8	66.6	49.6
Total Full-time Employment in 1990	9.5	10.5	4.5	5.5	6.7
Total Full-time Employment in 1992	12.6	13.8	5.9	7.7	8.4
Firm age, in years	12.4	13.0	10.4	12.1	6.4
% New Firm Since 1990	10.1	11.2	18.6	2.0	3.1
% Firms Located in MSA	75.1	71.7	92.0	89.3	86.7
% Sole Proprietorship	38.1	35.7	75.0	53.9	23.0
% Partnership	7.1	7.6	9.4	7.0	0.0
% S Corporation	27.1	28.6	8.0	9.8	45.7
% C Corporation	27.7	28.2	7.7	29.3	31.3
% Existing Relationship with Lender	27.4	26.5	6.3	45.1	25.5
% Firms with Local Sales Market	55.1	57.4	64.4	48.1	30.6
Characteristics of Loan Application					
Amount Requested (in 1,000s of 1992 $)	230.5	251.1	51.2	69.4	319.2
% Loans to be Used for Working Capital	11.3	12.5	0.0	2.6	16.1
% Loans to be Used for Equipment/Machinery	3.6	4.2	0.0	0.0	3.1
% Loans to be Used for Land/Buildings	0.1	0.1	0.0	0.0	0.0
% Loans to be Backed by Real Estate	19.6	20.3	7.4	21.5	16.1
Total Sample Size (unweighted)	515	343	43	82	47

Source: See Table 5.1.

Notes: (1) Sample weights are used to provide statistics that are nationally representative of all small businesses. (2) Some variable means are computed from slightly smaller samples because of missing values. (3) "Other Races" are not reported separately due to small sample size.

D. Qualitative Evidence

Before moving on to the results of our multivariate analysis, we first report on what business owners themselves say are their main problems. While this evidence is not conclusive in determining whether discrimination exists, it highlights firms' perceptions regarding discrimination in obtaining credit. That African American-owned firms and other minorities report greater difficulty in obtaining commercial than do nonminority-owned firms, but report other types of problems no more frequently, suggests either that discrimination takes place or that perceptions of discrimination exist that are unwarranted. It therefore complements the econometric analysis provided subsequently, which can distinguish between these two hypotheses.

Table 5.3 summarizes, for the U.S. as a whole, responses to specific questions about problems that firms confronted over the 12-month period before the date of response. In the top panel, respondents were asked to what extent credit market conditions had been a problem. African Americans and Hispanics were much more likely to say that it had been a "serious" problem (31.3 percent and 22.9 percent, respectively) than nonminorities (12.7 percent). The bottom panel of the table reports the results for eight other designated problem areas: (1) training costs; (2) worker's compensation costs; (3) health insurance costs; (4) IRS regulation or penalties; (5) environmental regulations; (6) The American with Disabilities Act; (7) the Occupational Safety and Health Act; and (8) The Family and Medical Leave Act. Differences between African American-owned firms and Hispanic-owned firms, on the one hand, and nonminority-owned firms, on the other, are much less pronounced in these eight areas than they are in relation to credit market conditions.[108] The finding that minority-owned firms are largely indistinguishable from nonminority-owned firms in reporting a variety of problems, except for the case of credit, indicates that these firms perceive credit availability to be a particular problem for them.

Results are broadly similar in Table 5.4 for the WSC division—with African American, Hispanic, and other minority-owned firms being more likely than nonminority-owned firms to say that credit market conditions had been a serious problem in the preceding 12 months.

[108] We also estimated a series of ordered Logit equations (not reported) to control for differences across firms in their creditworthiness, location, industry, size, and the like. It is apparent from these regressions that African American-owned firms were more likely to report that credit market conditions were especially serious.

Table 5.3. Problems Firms Experienced During Preceding 12 Months—USA

	All	Non-minority	African American	Hispanic	Other Races
Credit Market Conditions					
Percent reporting not a problem	66.2	67.3	43.1	58.9	65.8
Percent reporting somewhat of a problem	20.1	19.9	25.6	18.2	21.3
Percent reporting serious problem	13.7	12.7	31.3	22.9	12.9
Other Potential Problems (% reporting problem is serious)					
Training costs	6.5	6.6	7.2	6.3	4.3
Worker's compensation costs	21.7	21.0	19.3	30.6	28.7
Health insurance costs	32.5	31.6	38.1	44.3	35.0
IRS regulation or penalties	12.3	11.8	17.1	17.9	13.2
Environmental regulations	8.5	8.5	5.6	7.4	11.0
Americans with Disabilities Act	2.7	2.6	3.6	2.7	3.9
Occupational Safety and Health Act	4.5	4.5	3.9	3.6	6.2
Family and Medical Leave Act	2.7	2.5	4.5	3.1	4.8
Number of observations (unweighted)	2,007	1,648	170	96	93

Source: See Table 5.1.

Note: Figures are rounded. Rounding was performed subsequent to any mathematical calculations.

Table 5.4. Problems Firms Experienced During Preceding 12 Months—WSC

	All	Non-minority	African American	Hispanic	Other Races
Credit Market Conditions					
Percent reporting not a problem	65.6	67.6	39.8	51.3	74.8
Percent reporting somewhat of a problem	17.9	18.1	22.3	23.6	6.6
Percent reporting serious problem	16.5	14.4	37.9	25.1	18.5
Other Potential Problems (% reporting problem is serious)					
Training costs	8.5	9.0	10.4	2.4	10.8
Worker's compensation costs	24.6	24.1	23.9	22.7	33.1
Health insurance costs	32.6	29.4	33.7	44.9	49.2
IRS regulation or penalties	16.3	15.4	28.6	16.4	19.7
Environmental regulations	10.6	10.2	5.6	7.5	20.5
Americans with Disabilities Act	5.0	4.5	8.5	1.6	13.4
Occupational Safety and Health Act	6.7	6.1	7.5	4.5	16.0
Family and Medical Leave Act	4.8	4.7	2.8	4.2	6.6
Number of observations (unweighted)	515	343	43	82	47

Source: See Table 5.1.

Note: Figures are rounded. Rounding was performed subsequent to any mathematical calculations.

Tables 5.5 and 5.6 report the views of NSSBF respondents for the U.S. as a whole and the WSC division, respectively on the most important issues businesses expected to face over the following year. Nationally, credit availability and cash flow again appear to be more important issues for African American-owned firms than for nonminority-owned firms. Nonminority-owned firms were especially worried about health care costs. Hispanic and other minority-owned firms were especially worried about general business conditions.

In the WSC, credit availability and cash flow were far more important issues for African American-owned and Hispanic-owned firms than for nonminority-owned firms. Almost six times as many African American-owned firms than nonminority-owned firms reported credit availability as the most important issue. In contrast, health care costs were a large concern for all types of firms in the WSC.

Table 5.5. Percentage of Firms Reporting Most Important Issues Affecting Them Over the Next 12 Months—USA

	All	Non-minority	African American	Hispanic	Other Races
Credit availability	5.9	5.5	20.5	5.3	4.3
Health care, health insurance	21.1	22.1	12.3	13.7	14.8
Taxes, tax policy	5.7	5.7	2.6	8.7	3.3
General U.S. business conditions	11.8	11.5	8.9	14.4	17.4
High interest rates	5.4	5.7	1.8	3.5	3.4
Costs of conducting business	3.3	3.3	3.8	3.8	3.6
Labor force problems	3.5	3.3	3.9	5.5	3.6
Profits, cash flow, expansion, sales	10.3	9.9	20.3	9.8	11.9
Number of observations (unweighted)	4,388	3,383	424	262	319

Source: See Table 5.1.

Table 5.6. Percentage of Firms Reporting Most Important Issues Affecting Them Over the Next 12 Months—WSC

	All	Non-minority	African American	Hispanic	Other Races
Credit availability	3.9	2.8	16.0	9.8	2.4
Health care, health insurance	22.1	22.6	23.8	19.3	19.5
Taxes, tax policy	7.7	8.3	0.0	2.5	12.2
General U.S. business conditions	9.4	10.0	7.8	6.3	7.1
High interest rates	4.1	4.8	5.1	0.9	0.0
Costs of conducting business	2.0	1.9	2.3	4.1	0.0
Labor force problems	6.0	5.1	5.8	7.0	13.9
Profits, cash flow, expansion, sales	8.6	8.4	15.1	10.3	4.6
Number of observations (unweighted)	488	328	42	76	42

Source: See Table 5.1.

Acute credit availability problems for minorities have been reported in surveys other than the NSSBF. In the Census Bureau's 1992 Characteristics of Business Owners (CBO) Survey, conducted by the Census Bureau, for example, when owners were asked to identify the impact of various issues on their firm's profitability, 27.0 percent of African American-owned firms reporting an answer indicated that lack of financial capital had a strong negative impact—compared to only 17.3 percent among nonminority male-owned firms. Hispanic-owned firms

and other minority-owned firms also reported higher percentages than nonminority male-owned firms—21.3 percent and 19.7 percent, respectively. Further, owners who had recently discontinued their business because it was unsuccessful were asked in the CBO survey to identify the reasons why. African American-owned firms, and to a lesser degree Hispanic-owned firms, other minority-owned firms, and women-owned firms, were much more likely than nonminority male-owned firms to report that the reason was due to lack of access to business or personal loans or credit. For unsuccessful firms that were discontinued, 7.3 percent of firms owned by nonminority males reported it was due to lack of access to business loans or credit compared to 15.5 percent for firms owned by African Americans, 8.8 percent for Hispanics, 6.1 percent for Other minorities, and 9.3 percent for women. Another 2.7 percent of nonminority males said it was due to lack of personal loans or credit compared to 8.4 percent for firms owned by African Americans, 5.8 percent for Hispanics, 6.4 percent for Other minorities, and 3.3 percent for women.[109]

A later study published by the U.S. Chamber of Commerce (2005) is also consistent with these findings from the 1993 NSSBF and the 1992 CBO.[110] The Chamber of Commerce survey was conducted in March and April 2005 and detailed the financing problems experienced by small business owners, 95 percent of whom had less than 100 employees. Over 1,000 business owners were interviewed. This survey showed that minority-owned businesses rely heavily on credit cards to fund their businesses; often do not apply for credit, even though they need it, for fear of being denied; and were especially likely to need working capital. In particular, as shown in Table 5.7, minority-owned firms report that availability of credit is their top problem. The biggest difference in responses between minorities and nonminority men and women was availability of credit: 19 percent of nonminority males report credit as their top problem compared with 54 percent for minority males. There was a 15 percentage point difference between minority women and nonminority women. In no other category is there more than an 11 percentage point difference for men or women.

[109] Bureau of the Census (1997), Table 5a, p. 46, Table 1, p. 21.

[110] Although the CBO is part of the Economic Census, it was not published in 1997. In 2002, the name was changed to the Survey of Business Owners (SBO). Unfortunately, questions relating to the importance of access to financial loans and credit to business success were not included in the SBO.

Table 5.7. Types of Problems Facing Your Business, by Race and Gender

	Non-minority Male (%)	Non-minority Female (%)	Minority Male (%)	Minority Female (%)	African American (%)	Hispanic (%)	Asian/ Pacific Islander (%)
Availability of credit	19	23	54	38	46	52	34
Rising health care costs	60	49	50	41	31	42	66
Excessive tax burden	49	46	48	42	46	34	51
Lack of qualified workers	37	28	33	17	22	20	34
Rising energy costs	37	35	36	35	29	34	44
Rising costs of materials	44	47	36	47	53	42	32
Legal reform	21	15	15	12	11	10	17
Number of firms	415	356	80	81	55	50	41

Source: U.S. Chamber of Commerce (2005), p. 55.

Notes: (1) Percentages may total to more than 100% because respondents had the option to select multiple choices.
(2) "Minority" also includes 14 firms owned by Native Americans.

In summary, African American-owned and Hispanic-owned firms in particular reported that they had problems with the availability of credit in the past and expected that such difficulties would continue into the future. Whether or not these perceptions reflect actual discrimination can be tested in the econometric analyses to follow.

E. Differences in Loan Denial Rates by Race, Ethnicity or Gender

Evidence presented to this point indicates that minority-owned firms are more likely to be denied loans and report that their lack of access to credit significantly impairs their business. Can these differences be explained by such things as differences in size, creditworthiness, location, or other factors as some have suggested in the literature on discrimination in mortgage lending (Horne, 1994; Bauer and Cromwell, 1994; and Yezer, Phillips, and Trost, 1994)? To address this question, we turn to an econometric examination of whether the loan requests made by minority-owned firms are more likely to be denied, holding constant important differences among firms.

In Table 5.8 and Table 5.9, we report the results from a series of loan denial Probit regressions of the form specified in Equation (1) using data from the 1993 NSSBF for the U.S. and the WSC

division.[111] As indicated earlier, the 1993-2003 datasets have the particular advantage that they include information that can be used to proxy an applicant's creditworthiness. We report estimates from these models that can be interpreted as changes or differences in loan denial probabilities depending on the type of variables considered. For indicator variables, such as race, ethnicity, and gender indicators, estimates show differences in loan denial probabilities between the indicated group and the base group.[112] In Column (1) of Table 5.8 (in which the regression model contains only race and gender indicators), the estimated coefficient of 0.443 on the African American indicator can be interpreted as indicating that the denial rate for African American-owned businesses is 44.3 percentage points higher than that for nonminority male-owned firms.[113]

The remainder of Table 5.8 includes additional explanatory variables to hold constant differences in the characteristics of firms that may vary by race, ethnicity or gender.[114] In Column (2) a number of controls are included that distinguish the creditworthiness of the firm and the owner. Many are statistically significant on a two-tailed test at conventional levels of significance with the expected signs. For instance, having been bankrupt or had legal judgments against the firm or owner raises the probability of denial; stronger sales lower this probability. Even after controlling for these differences in creditworthiness, however, African American-owned firms remain 28.8 percentage points more likely than nonminority-owned firms to have their loan request denied.

The models reported in Columns (3) through (5) of Table 5.8 control for an array of additional characteristics of firms. Column (3) adds 39 additional characteristics of the firm and the loan application, including such factors as level of employment, change in employment, the size of the loan request, and the use of the loan. Column (4) includes variables to control for differences across regions of the country and major industry groups. Column (5) adds variables indicating

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[111] Firms owned 50-50 by minorities and non-minorities are excluded from this and all subsequent analyses, as are nonminority firms owned 50-50 by women and men.

[112] For "continuous" variables, such as profits and sales, estimates can be thought of as changes in loan denial probability when the continuous variable changes by one unit. For example, in Column (2) of Table 5.8, the estimated coefficient of -0.003 on owner's years of experience indicates that one additional year of owner's experience is related to -0.3 percentage point reduction in loan denial rate.

[113] This estimate largely replicates the raw difference in denial rates between African American-owned and nonminority-owned businesses reported in Table 5.1. The raw differential observed there (0.659 – 0.269 = 0.39) differs slightly from the 0.443 differential reported here because this specification also controls for whether the business is owned by a White Female and because the regressions are unweighted whereas the descriptive statistics are weighted using the sample weights. When a full set of explanatory control variables are included, the unweighted estimates are insignificantly different from the weighted estimates, hence in Table 5.8 and subsequent tables we report only unweighted estimates.

[114] In preliminary analyses, these models were also estimated separately, focusing specifically on the differences in coefficient estimates between nonminorities and African Americans. The F-Test conducted to determine whether parameter estimates were the same for African Americans and nonminorities rejected this null hypothesis. Next, the estimates obtained by estimating the model separately by race were used to conduct an Oaxaca (1973) decomposition. The results from this analysis were similar to those obtained by restricting the coefficients to be the same between African Americans and nonminorities and using the coefficient on the African American indicator variable to measure the gap between groups. In this chapter, all the results are reported in this simpler format for ease of exposition and interpretation.

the month and year in which the loan was requested and the type of financial institution to which the firm applied.[115] In total, these three columns add 176 variables to the more parsimonious specification reported in Column (2).[116] Nevertheless, the estimated disadvantage experienced by African American-owned firms in obtaining credit remains large and statistically significant. The estimate from each of the three additional columns indicates that African American-owned firms are 24 percentage points more likely than nonminority male-owned firms to have their loan application denied even after controlling for the multitude of factors we have taken into consideration.

The results also indicate that Asians/Pacific Islanders had significantly higher denial rates than nonminority males—12 percentage points. There is little evidence in the 1993 national data, however, that denial rates for firms owned by Native Americans or Hispanics were significantly different from the denial rates of firms owned by nonminorities; or that denial rates for firms owned by nonminority women were significantly different from those for firms owned by nonminority men.[117]

In Table 5.9, we see results for the WSC division similar to those reported in Table 5.8 for the nation as a whole. The table shows that the results of our loan denial model in the WSC, which includes the City of San Antonio Market Area, the balance of the State of Texas and a three-state surrounding area, are not substantially different from the nationwide results reported in Table 5.8. The indicator variable for the WSC division is insignificantly different from zero in all but one specification, and the interaction terms between race/ethnicity/gender and the WSC division are insignificantly different from zero in all cases.

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[115] Approximately four out of five (80.5%) of the firms who required a loan applied to a commercial bank. Overall, seventeen different types of financial institutions were tabulated, although only the following accounted for more than 1% of the (weighted) total: Finance Companies (4.9%); Savings Banks (2.5%); Savings & Loans (2.3%); Leasing Companies (2.1%); and Credit Unions (2.0%).

[116] One piece of information to which we did not have access in the 1993 NSSBF or the 1998 SSBF because of confidentiality concerns was each firm's credit rating. A working paper by Cavalluzzo, Cavalluzzo, and Wolken (2002) was able to incorporate Dun & Bradstreet credit ratings for each firm because the authors' connection to the Federal Reserve Board enabled them to access the confidential firm identifiers. They added these credit rating variables in a model comparable to that reported here and found the results insensitive to the inclusion. The 2003 SSBF includes Dun & Bradstreet credit ratings for each firm. Below, we discuss the impact of incorporating them into a model similar to that presented in Table 5.8 (see Tables 5.27 and 5.28).

[117] It would be a mistake to interpret a lack of statistical significance (as opposed to substantive significance) in any of the tables in Chapter V, or elsewhere in this Study, as a lack of adverse disparity. While tests for statistical significance are very useful for assessing whether chance can explain disparities that we observe, they do have important limitations. First, the fact that a disparity is not statistically significant does not mean that it *is* due to chance. It merely means that we cannot rule out chance. Second, there are circumstances under which tests for statistical significance are not helpful for distinguishing disparities due to chance from disparities due to other reasons (*e.g.*, discrimination). In the particular statistical application presented in this chapter, the chance that a test for statistical significance will incorrectly attribute to chance disparities that are due to discrimination becomes greater when relatively small sample sizes are present for an affected group.

Table 5.8. Determinants of Loan Denial Rates—USA

	(1)	(2)	(3)	(4)	(5)
African American	0.443 (11.21)	0.288 (6.84)	0.237 (5.57)	0.235 (5.22)	0.241 (5.13)
Asian/Pacific Islander	0.225 (4.21)	0.171 (3.18)	0.140 (2.56)	0.121 (2.15)	0.119 (2.07)
Native American	-0.016 (0.11)	-0.141 (1.06)	-0.097 (0.71)	-0.052 (0.35)	-0.083 (0.56)
Hispanic	0.129 (2.62)	0.070 (1.42)	0.067 (1.36)	0.035 (0.70)	0.031 (0.63)
Nonminority Female	0.088 (2.65)	0.048 (1.45)	0.047 (1.45)	0.036 (1.06)	0.033 (0.94)
Judgments		0.143 (2.84)	0.129 (2.56)	0.124 (2.40)	0.121 (2.29)
Firm delinquent		0.176 (6.50)	0.178 (6.43)	0.195 (6.77)	0.208 (7.00)
Personally delinquent		0.161 (4.45)	0.128 (3.56)	0.124 (3.38)	0.119 (3.17)
Bankrupt past 7 years		0.208 (3.11)	0.179 (2.68)	0.162 (2.37)	0.167 (2.33)
$1992 profits (*$10^8$)		-0.000 (0.89)	-0.000 (1.64)	-0.000 (1.78)	-0.000 (1.83)
$1992 sales (*$10^8$)		-0.000 (3.08)	-0.000 (3.38)	-0.000 (3.28)	-0.000 (3.38)
$1992 assets (*$10^8$)		0.000 (0.51)	0.000 (0.60)	0.000 (0.40)	0.000 (0.37)
$1992 liabilities (*$10^8$)		0.000 (0.61)	0.000 (1.11)	0.000 (1.04)	0.000 (1.17)
Owner years of experience		-0.003 (2.59)	-0.001 (1.30)	-0.002 (1.55)	-0.002 (1.72)
Owner share of business		0.001 (1.91)	0.000 (0.71)	0.000 (0.26)	0.000 (0.30)
Owner Education (5 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (13 variables)	No	No	Yes	Yes	Yes
Region (8 indicator variables)	No	No	No	Yes	Yes
Industry (60 indicator variables)	No	No	No	Yes	Yes
Month/Year of Application (51 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (16 indicator vars.)	No	No	No	No	Yes
N	2,007	2,007	2,006	1,985	1,973
Pseudo R^2	.0608	.1412	.2276	.2539	.2725
Chi^2	143.6	333.4	537.3	595.4	635.8
Log likelihood	-1108.8	-1013.8	-911.6	-874.8	-848.7

Source: See Table 5.1.

Notes: (1) Reported estimates are derivatives from Probit models, t-statistics are in parentheses. (2) "Other firm characteristics" include variables indicating whether the firm had a line of credit, 1990 employment, firm age, metropolitan area, a new firm since 1990, legal form of organization (sole proprietorship, partnership, S-corporation, or C-corporation), 1990-1992 employment change, existing long run relation with lender, geographic scope of market (local, regional, national or international), the value of the firm's inventory, the level of wages and salaries paid to workers, the firm's cash holdings, and the value of land held by the firm. (3) "Characteristics of the loan" include the size of the loan applied for, a variable indicating whether the loan was backed by real estate, and twelve variables indicating the intended use of the loan.

Table 5.9. Determinants of Loan Denial Rates—WSC division

	(1)	(2)	(3)	(4)	(5)
African American	0.434 (10.33)	0.289 (6.55)	0.236 (5.3)	0.238 (5.04)	0.242 (4.89)
Asian/Pacific Islander	0.206 (3.60)	0.157 (2.72)	0.115 (2.00)	0.091 (1.55)	0.094 (1.56)
Native American	-0.083 (0.47)	-0.132 (0.76)	-0.105 (0.59)	-0.059 (0.29)	-0.108 (0.53)
Hispanic	0.154 (2.64)	0.095 (1.64)	0.061 (1.06)	0.028 (0.49)	0.024 (0.42)
Nonminority Female	0.082 (2.33)	0.047 (1.33)	0.042 (1.20)	0.029 (0.82)	0.019 (0.52)
African American*WSC	0.071 (0.61)	-0.008 (0.07)	0.003 (0.03)	-0.011 (0.10)	0.007 (0.06)
Asian/Pacific Islander*WSC	0.128 (0.83)	0.071 (0.50)	0.167 (1.04)	0.213 (1.26)	0.188 (1.10)
Native American*WSC	0.243 (0.67)	-0.053 (0.17)	0.017 (0.05)	0.035 (0.11)	0.105 (0.27)
Hispanic*WSC	-0.068 (0.70)	-0.087 (0.91)	0.009 (0.09)	0.037 (0.33)	0.047 (0.40)
Nonminority female*WSC	0.045 (0.44)	0.002 (0.02)	0.047 (0.46)	0.062 (0.58)	0.143 (1.21)
WSC division	-0.003 (0.07)	0.027 (0.61)	0.013 (0.30)	0.126 (2.42)	0.033 (0.63)
Creditworthiness Controls (4 variables)	No	Yes	Yes	Yes	Yes
Owner Education (5 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (13 variables)	No	No	Yes	Yes	Yes
Geographic Division (7 indicator variables)	No	No	No	Yes	Yes
Industry (60 indicator variables)	No	No	No	Yes	Yes
Month/Year of Application (51 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (16 indicator vars.)	No	No	No	No	Yes
N	2007	2,007	2,006	1,985	1,973
Pseudo R^2	.0618	.1419	.2285	.2547	.2736
Chi^2	145.8	334.95	539.3	597.3	638.3
Log likelihood	-1107.5	-1013.1	-910.6	-873.8	-847.5

Source: See Table 5.8.

Note: Creditworthiness controls are those used in Table 5.8 above.

Although the results provided so far strongly indicate that financial institutions treat African American-owned and nonminority male-owned small businesses differently in lending, other considerations may limit our ability to interpret this finding as discrimination. Of perhaps greatest concern is the possibility that we may not have adequately controlled for differences in the creditworthiness of firms. If African American-owned firms are less creditworthy and we have failed to sufficiently capture those differences, then we would be inadvertently attributing the racial difference in loan denial rates to discrimination. On the other hand, if financial institutions discriminate against African American-owned firms, then the greater likelihood of denial for African Americans in earlier years is likely to hurt the performance of these firms and appear to make them look less creditworthy. Therefore, controlling for creditworthiness will likely understate the presence of discrimination.

As a check on the foregoing results, therefore, our first approach was to identify the types of information that financial institutions collect in order to evaluate a loan application and compare that with the information available to us in the NSSBF. First, a selection of small business loan applications was collected from various banks. An Internet search of web sites that provide general business advice to small firms was also conducted. Such sites typically include descriptions of the loan application process and list the kinds of information typically requested of applicants.[118]

Bank loan applications typically request detailed information about both the firm and its owner(s). Regarding the firm, banks typically request information on: (a) type of business, (b) years in business, (c) number of full-time employees, (d) annual sales, (e) organization type (corporation or proprietorship), (f) owner share(s), (g) assets and liabilities, (h) whether the business is a party to any lawsuit, and (i) whether any back taxes are owed. Regarding the owner's personal finances, banks typically ask for: (a) assets and liabilities, (b) sources and levels of income, and (c) whether the owner has any contingent liabilities. Some applications ask explicitly if the firm qualifies as a minority-owned enterprise for the purposes of certain government loan guarantee programs. The race of the applicant, however, would be readily identifiable even in the absence of such a question since most of these loans would be originated through face-to-face contact with a representative of the financial institution.

These criteria seem to match quite closely the information available in the 1993 NSSBF. The particular strength of the NSSBF is the detail available on the firm, which covers much of the information typically requested on loan application forms. The only shortcoming that we have identified in the 1993 NSSBF data is that less detail is available on the finances of the owner of the firm, as opposed to the firm itself.[119] Although our creditworthiness measures enable us to identify those owners who have had serious financial problems (like being delinquent on personal obligations), we have no direct information regarding the owner's assets, liabilities, and income (as opposed to those of the firm). These factors would be necessary to identify whether the business owner has sufficient personal resources to draw upon should the business encounter

[118] An example of a typical application form is presented as Appendix B in Blanchflower, Levine, and Zimmerman (2003).

[119] This is remedied in the 1998 SSBF and the 2003 SSBF, discussed below, both of which contain information on the owner's home equity, and personal net worth excluding home equity and business equity.

difficulties and to determine the personal collateral available should the firm default on its obligation. We do have measures of the owner's human capital in the form of education and experience, which likely capture at least some of the differential in available personal wealth across firm owners. Nevertheless, our potentially incomplete characterization of the business owner's personal financial condition in the 1993 NSSBF dataset may introduce a bias into our analysis if African American business owners have fewer resources than nonminority business owners. As we will see below, however, and as noted in the previous footnote, this deficiency is rectified in the 1998 and 2003 SSBF datasets, with little change in the main findings.

To assess the potential impact of this problem on our results, we separately examined groups of firms who differ in the degree to which personal finances should influence the loan decision and compare the estimated disadvantage experienced by African American-owned firms in different groups. First, we examine proprietorships and partnerships separately from corporations since owners of incorporated businesses are at least somewhat shielded from incurring the costs of a failed business. Second, we divide firms according to size.[120] Both larger small businesses and those that have been in existence for some time are more likely to rely on the business's funds, rather than the owner's, to repay its obligations. Third, we consider firms that have applied for loans to obtain working capital separately from those firms that seek funds for other purposes (mainly to purchase vehicles, machinery and equipment, and buildings or land). Loans made for one of these other purposes are at least partially collateralized because the financial institution could sell them, albeit at a potentially somewhat reduced rate, should the small business default.[121]

In order to determine whether the findings for the WSC division were different from those for the nation as a whole, in the second column of Table 5.10 we also report the coefficient and t-statistics on an interaction term between the WSC division and African American ownership. In no case was the estimated coefficient on this interaction significant, implying that the national results also apply to the WSC, hence we do not discuss it further below, as the national results are also representative for the WSC.

Results from these analyses provide no indication that omitting the owner's personal wealth significantly biases the results presented above in Tables 5.8 and 5.9. Estimates presented in row numbers 1 through 8 of Table 5.10 indicate that African American-owned small businesses are significantly more likely to have their loan applications rejected regardless of the category of firm considered. In particular, when samples are restricted to corporations, larger firms, and

[120] As reported earlier, the mean and median size of firms is 5.5 and 31.6 full-time equivalent workers, respectively. Fourteen percent of firms have one or fewer employees and 27 percent have two or fewer employees. In the WSC, the mean and median size of firms is 5.0 and 30.2 full-time equivalent workers, respectively. Ten percent of firms have one or fewer employees and 30 percent have two or fewer employees.

[121] As indicated earlier, greater personal wealth may improve a small business's chances of obtaining credit because it provides collateral should the loan go bad and because wealthy owners can use their own resources to weather bad times, improving the likelihood of repayment. Our separate analysis of corporations and proprietorships and of large and small firms does not account for this second reason because corporations and large businesses may still need to draw on the owner's personal wealth to help it survive short-term shocks. Businesses that have been in existence for several years, however, are less likely to experience these shocks, making them less likely to require infusions from the owner's personal wealth. A loan used to purchase equipment that can be sold if the firm defaults similarly insulates the bank from the need to seek repayment directly from the owner.

firms seeking credit for uses other than working capital, African American-owned firms are 21, 24, and 18 percentage points more likely, respectively, to have their loan application rejected even though personal resources should be less important in these categories. Moreover, in each group where there are two types of firms (large and small, etc.), the estimates for the two types of firms are not significantly different from each other.

Another issue is whether the racial differences in loan denial rates among firms with similar characteristics can be attributable to differences in the geographic location of African American- and nonminority-owned firms. If, for example, African American-owned firms are more likely to be located in the central city, and a central city location is negatively correlated with profitability and the ability to repay debt, then financial institutions may be acting optimally in rejecting the loan applications of African American-owned firms at a higher rate. As indicated earlier, this type of behavior is labeled "statistical discrimination." In the subsequent text and tables, we present a limited analysis to address whether or not this type of behavior takes place.[122]

To identify whether lenders' behavior is consistent with this hypothesis, we distinguish those firms that self-classified their sales market as being local rather than regional, national, or international. A central city location should have a greater impact on future profit expectations for those firms that operate on a local level. If minority-owned firms are more likely to locate in the central city, racial differences in loan approval rates should be greater in the firms that sell in the local market area. The results of this test, reported in row numbers 9 and 10 of Table 5.10, reject the hypothesis that differences in loan denial rates are attributable to different propensities to locate in the center of a city. Estimates indicate that African American-owned firms that sell to the local market are 13 percentage points more likely to have their loan applications denied compared to a 23 percent excess denial rate for firms selling primarily to regional, national, or international markets.

We also estimate models that address a potential weakness in the specific functional form with which we control for differences in credit history across firms. As shown in Tables 5.1 and 5.2, African American-owned firms are considerably more likely to have had troubles in the past in the form of judgments against them, late payments by the firm or its owner, or past bankruptcies. The model specifications reported in Tables 5.8 and 5.9 implicitly assume that these past problems are additive in their effect on loan denials and one might suspect the marginal impact would rise as past problems rise. Therefore, in the final three rows of Table 5.10, we separated firms by the number of past problems experienced. In Rows 11 through 13, we restricted the sample to those firms that have never had any past credit problems, those firms that reported one problem only, and those firms that reported more than one of these problems, respectively. The results indicate that even African American-owned firms with clean credit histories are at a significant disadvantage in getting their loans approved, holding constant their other characteristics. In fact, the estimated differential in loan approval rates between African American and nonminority-owned firms is statistically indistinguishable within each of these

[122] A strong test to distinguish between statistical discrimination and "Becker-Type" discrimination (referring to the standard economic model of discrimination first expounded by University of Chicago economist Gary Becker) would require a tremendous amount of detail about the specific location of the firm, characteristics of its surrounding area, characteristics of neighboring firms, and the like, which were unavailable to us. As indicated earlier, both forms of discrimination are illegal and this chapter applies a definition that incorporates both.

groups. Asian/Pacific Islander-owned firms and nonminority female-owned firms with clean credit histories, are also at a significant disadvantage relative to nonminority-male owned firms.

Table 5.10. Alternative Models of Loan Denials

Specification	African American	African American* WSC	Asian	Hispanic	Non-minority Female	Sample Size
All	0.236 (5.30)	0.003 (0.03)	0.115 (2.00)	0.061 (1.06)	0.042 (1.20)	2,006
Organization Type						
1) Proprietorships and Partnerships	0.266 (3.15)	0.038 (0.19)	0.240 (2.10)	-0.013 (0.13)	-0.013 (0.18)	536
2) Corporations	0.209 (3.95)	-0.009 (0.06)	0.071 (1.05)	0.095 (1.31)	0.062 (1.53)	1,457
Age of Firm						
3) 12 Years or Under	0.256 (4.22)	0.165 (0.25)	0.042 (2.12)	0.008 (0.10)	0.016 (0.32)	1,074
4) Over 12 Years	0.194 (2.92)	0.002 (0.23)	0.035 (0.03)	0.114 (1.41)	0.094 (1.86)	926
Firm Size						
5) Fewer than 10 Employees	0.226 (3.65)	0.107 (0.53)	0.093 (1.27)	-0.009 (0.12)	-0.019 (0.38)	868
6) 10 or More Employees	0.242 (3.44)	0.119 (0.73)	-0.105 (1.37)	0.141 (1.61)	0.108 (2.16)	1,132
Intended Use of Loan						
7) Working Capital	0.258 (4.65)	0.093 (0.48)	0.087 (1.17)	0.046 (0.6)	0.047 (0.97)	1,086
8) Other Use	0.176 (2.30)	-0.048 (0.35)	0.164 (1.79)	0.086 (0.99)	0.040 (0.83)	913
Scope of Sales Market						
9) Local	0.125 (1.79)	0.350 (1.72)	0.127 (1.63)	0.011 (0.15)	0.036 (0.72)	875
10) Regional, National, or International	0.229 (5.36)	-0.062 (0.97)	0.059 (1.09)	0.086 (1.41)	0.031 (1.07)	1,129
Creditworthiness						
11) No Past Problems	0.269 (4.64)	-0.123 (1.54)	0.150 (2.57)	0.046 (0.83)	0.079 (2.33)	1,386
12) One Past Problem	0.280 (2.69)	-0.089 (0.36)	-0.094 (0.54)	0.182 (1.10)	0.007 (0.07)	376
13) More Than One Problem	0.263 (2.39)	0.003 (0.03)	0.271 (1.74)	-0.022 (0.11)	-0.178 (1.15)	222

Source: See Table 5.1.

Notes: (1) Reported estimates are derivatives from Probit models, t-statistics are in parentheses. (2) Each line of this table represents a separate regression with the same control variables as Column 3 of Table 5.8. (3) The dependent variable in all specifications represents an indicator for whether or not a loan application was denied. (4) Control for WSC also included.

Finally, we considered whether African American-owned firms are treated differently from nonminority-owned firms when requesting credit from other sources. The source of credit we examined is credit cards. Such an analysis provides a unique advantage because credit card applications are more likely to be filled out and mailed in, so it is more likely that the race of the applicant is unknown to the financial institution, at least in the case of African American-owned firms and Native American-owned firms, where surname is unlikely to provide any signal about minority status. On the other hand, for Asian/Pacific Islander and Hispanic applicants, it is possible that surname does provide such a signal, albeit a somewhat noisy one. The 1993 NSSBF asked respondents whether they used either a business or personal credit card for business purposes. Although our analysis of use of credit cards does not condition on application, a finding that African American- and nonminority-owned small businesses are equally likely to use credit cards may still provide evidence supporting discrimination in small-business lending. In fact, if financial institutions discriminate against African Americans in providing small business loans, we may even expect to see African Americans use credit cards more often than nonminorities since they have fewer alternatives. Even though many institutions may offer both types of credit, they may only be aware of the race of the applicant in a small business loan.[123]

In Tables 5.11 and 5.12, we examine the probability that a firm uses either a business credit card (Row 1) or a personal credit card (Row 2) to finance business expenses holding constant other differences across firms.[124] There is no evidence, either for the U.S. as a whole or for the WSC, that African American-owned firms or Native American-owned firms are less likely to access either business or personal credit cards for business expenses. In fact, there is some evidence in the WSC that African Americans are *more* likely to access business credit cards. On the other hand, there is evidence both in the WSC and the nation as a whole that Asian/Pacific Islander-owned firms and Hispanic-owned firms are less likely to access business credit cards.[125]

[123] It appears that race may also rarely be known to those institutions that issue credit ratings. As we mentioned above, Cavalluzo, Cavalluzo, and Wolken (2002) show that Dun & Bradstreet Credit Ratings are not helpful in explaining racial disparities in loan denials. Although we are not privy to Dun & Bradstreet's methodology for establishing its credit ratings, we do know from long experience that indicators of ownership by race are incomplete in Dun & Bradstreet's master business identifier file. Indeed, this is the reason why NERA's availability estimation methodology requires us to create a master directory of disadvantaged, minority- and women-owned businesses for merging with the Dun & Bradstreet data.

[124] On average, 29 percent of all firms use business credit cards and 41 percent use personal credit cards for business use; these levels vary only modestly by race and ethnicity. In the WSC, the figures are 28 percent and 37 percent, respectively.

[125] We also had information available on the maximum amount that could be billed to these accounts and found no significant differences by race in a regression that modeled the amount that could be charged. Nor were any racial differences observed when we modeled the typical balance remaining on these cards at the end of a typical month.

Table 5.11. Models of Credit Card Use

Specification	African American	Asian/ Pacific Islander	Native American	Hispanic	Non-minority Female	Sample Size
1) Business Credit Card	0.035 (1.35)	-0.096 (3.23)	0.085 (1)	0.024 (0.79)	0.018 (0.83)	4,633
2) Personal Credit Card	0.019 (0.74)	-0.019 (0.63)	0.019 (0.23)	-0.042 (1.4)	0.028 (1.28)	4,633

Source: See Table 5.1.

Notes: (1) Reported estimates are derivatives from Probit models, t-statistics are in parentheses. (2) Each line of this table represents a separate regression with the same control variables as Column 3 of Table 5.8 but excluding the loan characteristics. (3) The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. (4) In all specifications, the sample size is all firms. (5) Other races are excluded due to sample size limitations.

Table 5.12. Models of Credit Card Use–WSC

Specification	African American	Asian/ Pacific Islander	Native American	Hispanic	Non-minority Female	Sample Size
1) Business Credit Card	0.210 (2.32)	-0.214 (2.74)	0.021 (0.31)	-0.028 (0.44)	0.018 (0.83)	514
2) Personal Credit Card	0.019 (0.22)	-0.043 (0.49)	-0.172 (2.65)	-0.085 (1.28)	0.028 (1.28)	514

Source: See Table 5.11.

Notes: See Table 5.11. Control for WSC included.

F. Differences in Interest Rates Charged on Approved Loans

Although most of our analysis has addressed whether minority- and nonminority-owned firms are treated equally in terms of their probability of loan denial, another way that differential treatment may emerge is through the interest rate charged for approved loans. Discrimination may be apparent if banks approve loans to equally creditworthy minority- and nonminority-owned firms, but charge the minority-owned firms a higher interest rate. Therefore, we estimated model specifications analogous to those reported previously for loan denials, but now the dependent variable represents the interest rate charged for firms whose loans were approved and the set of explanatory variables includes characteristics of the loan. More formally, the model we estimated takes the form:

(2) $$I_i = \beta_0 + \beta_1 CW_i + \beta_2 X_i + \beta_3 R_i + \beta_4 LC_i + \varepsilon_i,$$

where I represents the interest rate charged on the loan, LC represents characteristics of the loan (see the notes to Table 5.8 for a full list of the variables included in this set), ε_i is a term capturing random factors, and all other notations are the same as in equation (1).

An important consideration is whether the interest rate may be treated as exogenous, as our reduced form model assumes. In the context of small business loans, in which it is possible that the loan terms may be negotiated in the determination process, this assumption may not be valid. As such, a model that simultaneously estimates the interest rate and the loan decision might be appropriate, except that the interest rate that would be charged to firms whose loans were denied is not available in our data. Alternatively, one could estimate an interest rate model alone for those firms whose loan was approved, adjusting for the potential bias brought about by sample selection. To properly identify such a model, however, a variable is required that is linked to the loan denial decision, but unrelated to the level of interest charged on approved loans; no such variable exists in the data.

Nevertheless, one would expect these considerations to impose a downward bias on the estimated differential in interest rates charged on loans to African American-owned firms. Those firms whose loans were rejected would have been charged higher interest rates than those approved. Since African American-owned businesses were considerably more likely to be rejected holding constant differences in creditworthiness, one would expect any differential in interest rate to be even greater if those firms were included in the sample. We overlook this implication in the results reported below, but its impact should be kept in mind.

The results obtained from estimating equation (2) are reported in Row 1 of Table 5.13, which includes the complete set of control variables comparable to those in Column 5 of Table 5.8. Estimates indicated that African American-owned firms pay rates of interest that are roughly one percent higher than similarly situated nonminority-owned firms. Row 2 shows that even African American-owned firms with good credit histories are charged higher interest rates relative to nonminority-owned firms.[126]

The remainder of the table presents similar specification checks to those reported in Table 5.10. Recall that most of these models identify firms for which the firm's own history is likely to be a more important contributor to its creditworthiness. The specifications by sales market are designed to distinguish the impact of central city location. Unfortunately, sample sizes are smaller in these specifications and reduce the power of the analysis. Nevertheless, we still find that regardless of organization type and firm age, African American-owned firms face statistically significantly higher interest rates. Overall, the evidence presented indicates that African Americans, and to a lesser extent Hispanics and Asian/Pacific Islanders, do face disadvantages in the market for small business credit that does not appear to be attributable to differences in geography or creditworthiness.

Table 5.14 shows results for the WSC. Findings are comparable to those for the nation as a whole.

[126] Estimates from firms that have had past credit problems are not presented since the higher likelihood of their being denied credit restricts the size of the sample and limits the ability to provide a powerful test of the interest rates charged if they are approved.

Table 5.13. Models of Interest Rate Charged —USA

Specification	African American	Asian/ Pacific Islander	Native American	Hispanic	Non-minority Female	Sample Size
1) All loans (controls as in Column 5, Table 5.8)	1.034 (3.72)	0.413 (1.37)	-0.427 (0.63)	0.517 (1.97)	0.025 (0.14)	1,454
Creditworthiness						
2) No credit problems	1.187 (3.27)	0.485 (1.33)	0.910 (1.07)	0.435 (1.48)	0.129 (0.66)	1,137
Organization Type						
3) Proprietorships and Partnerships	1.735 (2.57)	0.826 (1.03)	2.589 (0.90)	1.008 (1.74)	-0.239 (0.53)	364
4) Corporations	0.660 (2.04)	0.359 (1.07)	-0.585 (0.86)	0.491 (1.53)	0.127 (0.66)	1,090
1993 Firm Size						
5) Fewer than 10 Employees	1.200 (2.58)	-0.247 (0.41)	-0.010 (0.01)	0.783 (1.75)	-0.311 (1.02)	574
6) 10 or More Employees	0.450 (1.15)	0.446 (1.21)	-0.197 (0.25)	0.515 (1.37)	0.164 (0.77)	880
Scope of Sales Market						
7) Local	0.751 (1.55)	-0.073 (0.13)	1.773 (1.12)	0.805 (2.05)	0.324 (1.08)	633
8) Regional, National, or International	1.544 (4.26)	1.185 (2.93)	-1.368 (1.85)	0.392 (0.96)	-0.163 (0.73)	821

Source: See Table 5.1.

Notes: (1) Reported estimates are Ordinary Least Squares (OLS) coefficients, t-statistics in parentheses. (2) Each line of this table represents a separate regression with all of the control variables as Column 5 of Table 5.8 (except where specified) as well as: an indicator variable for whether the loan request was for a fixed interest rate loan, the length of the loan, the size of the loan, whether the loan was guaranteed, whether the loan was secured by collateral, and 7 variables identifying the type of collateral used if the loan was secured. (3) The sample consists of firms that had applied for a loan and had their application approved. (4) "No credit problems" means that neither the firm nor the owner had been delinquent on payments over 60 days, no judgments against the owner for the preceding 3 years, and the owner had not been bankrupt in the preceding 7 years.

Table 5.14. Models of Interest Rate Charged—WSC

Specification	African American	African American * WSC	Asian/ Pacific Islander	Native American	Hispanic	Non-minority Female	Sample Size
1) All loans (controls as in column 5, Table 5.8)	0.853 (2.92)	1.467 (1.73)	0.372 (1.18)	0.570 (0.73)	0.507 (1.61)	-0.027 (0.15)	1,454
Creditworthiness							
2) No credit problems	0.970 (2.51)	1.812 (1.72)	0.508 (1.36)	0.922 (1.08)	0.431 (1.22)	0.109 (0.53)	1,137
Organization Type							
3) Proprietorships and Partnerships	1.572 (2.05)	0.706 (0.46)	0.653 (0.77)	2.730 (0.94)	0.747 (1.00)	-0.441 (0.93)	364
4) Corporations	0.549 (1.65)	1.409 (1.07)	0.436 (1.23)	0.573 (0.71)	0.634 (1.73)	0.091 (0.46)	1,090
Firm Size							
5) Fewer than 10 Employees	0.994 (2.03)	1.345 (0.97)	-0.302 (0.49)	3.199 (1.74)	0.906 (1.65)	-0.345 (1.09)	574
6) 10 or More Employees	0.238 (0.58)	1.858 (1.57)	0.547 (1.37)	-0.100 (0.13)	0.638 (1.52)	0.070 (0.31)	880
Scope of Sales Market							
7) Local	0.502 (0.98)	2.208 (1.54)	-0.165 (0.28)	1.650 (1.04)	0.540 (1.14)	0.279 (0.88)	633
8) Regional, National, or International	1.442 (3.77)	0.776 (0.69)	1.162 (2.73)	-0.567 (0.63)	0.701 (1.42)	-0.232 (0.99)	821

Source: See Table 5.1

Notes: See Table 5.13.

G. Loan Approval Rates and Access to Credit

The results presented so far may be biased toward finding too small a disparity between nonminority- and African American-owned firms because those minority-owned firms that actually apply for credit may represent a selected sample of the most creditworthy. More marginal minority-owned firms whose loans may have been accepted had they been owned by nonminorities may not even be among the pool of loan applicants. First, these firms may have gone out of business or may not have had the opportunity to commence operations because of their inability to obtain capital. Second, some existing firms may have chosen not to apply for credit because they were afraid their application would be rejected due to prejudice.

Although we have no direct evidence regarding the first proposition, data from the 1993 NSSBF provide some evidence for the second: African American- and Hispanic-owned firms are much more likely to report that they did not apply for a loan, even though they needed credit, because they thought they would be rejected. Table 5.15 reports estimates from Probit models in which the dependent variable is an indicator variable representing failure to apply for a loan fearing denial for all firms. The first row presents racial differences without controlling for any other

characteristics of firms, and the results indicate that African American- and Hispanic-owned firms are 40 and 23 percentage points more likely than nonminority-owned firms to withhold an application fearing denial.

Of course, some of this difference may be attributable to differences in creditworthiness across firms since firms that are bad credit risks should be afraid that their loan would be denied. To adjust for this, the second row of Table 5.15 reports comparable models that control for differences in creditworthiness and other characteristics of firms. The results from this specification show that the greater fear of rejection among African American-owned and Hispanic-owned firms can partially be explained by these differences. Nevertheless, a gap of 26, 5, and 16 percentage points still exists for African American-owned, Asian/Pacific Islander-owned, and Hispanic-owned firms, respectively, relative to nonminority-owned firms with similar characteristics. In fact, when asked directly why they were afraid to apply for loans, African American-owned firms and Hispanic-owned were far more likely to report prejudice as the reason (19 percent and 8 percent, respectively, compared to less than 3 percent for nonminority-owned firms).[127] Results obtained in section (b) of Table 5.15 for the WSC division are very similar to those found for the nation as a whole. As section (c) of Table 5.15 shows, African American-owned firms in construction also appear to be fearful of applying because of the possibility of their application being turned down.[128]

If these minority-owned firms had applied for credit and were rejected because of discrimination, estimates of racial disparities based only upon loan applicants (as in Tables 5.8 and 5.9) would be understated. The perception of prejudice among these firms, however, does not necessarily imply that selection bias is present. Those firms that failed to apply because they feared rejection may have had similar loan denial rates as other minority-owned firms with comparable levels of creditworthiness that did apply. If those firms chose to apply for a loan, differences by race in the combined denial rate of the actual and potential applicants would be the same as what we have estimated for the observed sample of applicants.

More formally, suppose that loan denial rates for equally creditworthy nonminority- and minority-owned firms that applied for credit are θ^w and θ^m, respectively; the measure of discrimination employed in the previous analysis is $\theta^m - \theta^w$. Now suppose that firms that are equally creditworthy, but chose not to apply for a loan because they feared rejection, would have been denied at the rates θ^w and ψ^m for nonminority- and minority-owned firms, respectively. Among the nonminority-owned firms, the denial rate is identical regardless of whether the firm chose to apply or not, conditional upon creditworthiness. Among minority-owned firms, however, those who were afraid to apply may have been denied at a higher rate (perhaps because of their greater propensity to locate in the central city or other factors that are related to their race, but unrelated to creditworthiness) compared with other minority-owned firms.

[127] Other reasons given, including "too little collateral," "poor credit history," and "poor balance sheet," are comparable across groups. Firms could report more than one reason.

[128] It was not possible to report separate construction results in earlier tables because of small sample sizes.

Then, the correct representation of the disadvantage faced by minority-owned firms is $[\eta\theta^m + (1-\eta)\ \psi^m] - \theta^w$, where η represents the share of minority-owned firms desiring credit that submitted an application. Our earlier findings are biased if θ^m is not equal to ψ^m.

Table 5.15. Racial Differences in Failing to Apply for Loans Fearing Denial

Specification	African American	Asian/ Pacific Islander	Native American	Hispanic	Non-minority Female
a) USA No Other Control Variables (n=4,637)	0.405 (16.65)	0.099 (3.61)	0.134 (1.72)	0.235 (8.28)	0.031 (1.54)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=4,633)	0.257 (10.02)	0.054 (1.98)	0.019 (0.27)	0.164 (5.69)	-0.008 (0.38)
b) WSC					
No Other Control Variables, except for WSC dummy and race*WSC interactions (n=4,637)	0.404 (15.80)	0.098 (3.34)	0.218 (2.24)	0.247 (7.47)	0.049 (2.26)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=4,633)	0.261 (9.78)	0.053 (1.83)	0.088 (0.97)	0.164 (4.96)	0.009 (0.45)
c) Construction					
No Other Control Variables (n=781)	0.350 (6.74)	0.109 (1.27)	-0.087 (0.54)	0.150 (2.22)	-0.007 (0.12)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=781)	0.181 (3.67)	0.064 (0.78)	-0.132 (1.00)	0.040 (0.65)	-0.063 (1.32)

Source: See Table 5.1.

Notes: (1) Reported estimates are Probit derivatives, t-statistics in parentheses. (2) Sample consists of all firms. (3) Dependent variable equals one if the firm said they did not apply for a loan fearing denial, zero otherwise.

One approach that is frequently employed to address such a problem is to estimate a "Heckman-correction" that would formally model the application process in conjunction with the loan outcome for those who applied. The difficulty with this methodology in the present context is that it is only correctly implemented when some variable is present that is correlated with a firm's decision to apply for a loan, but is independent of the financial institution's decision to approve or deny the request. Unfortunately, the NSSBF data do not appear to contain any variables that would satisfy these conditions, so we are unable to implement this methodology.[129]

[129] The only variable that potentially could meet these conditions in the NSSBF data is the distance between a firm and the nearest financial institution. If greater distance reduced a firm's information regarding the availability of funds, it might be related to the decision to apply for a loan. On the other hand, the creditworthiness of the firm should be independent of its location and should be unlikely to enter into the approval process. Unfortunately, we did not find a direct relationship between distance to the nearest financial institution and the probability of applying for a loan. This may be due to the fact that few firms are located more than a very short distance from the nearest financial institution.

As an alternative that answers a different, but related, question, we consider the ability of firms to get credit among those who desired it, regardless of whether or not they applied. This amounts to analyzing access to credit rather than loan approval and includes in the denominator those firms that needed credit but did not apply because they feared rejection. If differences by race in this rate among all firms who needed credit are greater than differences by race in the rate of denial among loan applicants, then this would indicate that African American-owned firms and other minority-owned firms have even less access to credit than an analysis of loan applicants would indicate.

To test this proposition, we estimate a regression model comparable to the one reported in Table 5.10 for the sample of firms that applied for a loan, except that this analysis considers all firms seeking credit and treats those who did not apply for fear of rejection as denials. The sample excludes firms that did not need additional credit in the preceding three years. The results, reported in Table 5.16, are consistent with the previous analysis; we find that selection is not much of an issue for African American-owned firms nationally, or in the construction sector sub-sample, or for Asian-owned firms nationally or in the WSC division. Regardless of whether we consider denial rates among applicants or denial rates among firms that desired additional credit, African American-owned firms are 20-30 percentage points less likely to obtain credit once control variables are included and even higher than that when they are not. For Hispanic-owned firms, however, some selection bias is evident. Among the pool of loan applicants, Hispanic-owned firms are not statistically significantly more likely to be denied than other firms with the same characteristics (see, *e.g.,* Table 5.8, Column 5). Among the pool of firms seeking additional credit, however, Hispanic-owned firms are 17 percentage points more likely to be denied access to credit, and 17 percentage points more likely in the WSC, and these differences are statistically significant.

Table 5.16. Models of Failure to Obtain Credit Among Firms that Desired Additional Credit

Specification	African American	Asian	Native American	Hispanic	Non-minority female
a) USA No Other Control Variables (n=2,646)	0.455 (14.84)	0.298 (6.82)	0.188 (1.57)	0.297 (7.76)	0.126 (4.01)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=2,643)	0.276 (6.93)	0.180 (3.42)	-0.008 (0.06)	0.165 (3.51)	0.049 (1.38)
b) WSC					
No Other Control Variables (n=2,646)	0.457 (14.16)	0.299 (6.45)	0.199 (1.45)	0.322 (7.25)	0.138 (4.18)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=2,643)	0.292 (7.02)	0.172 (3.09)	0.041 (0.24)	0.166 (3.07)	0.054 (1.44)
c) Construction					
No Other Control Variables (n=463)	0.413 (6.12)	0.196 (1.46)	0.128 (0.36)	0.255 (2.71)	0.043 (0.51)
Full Set of Control Variables (same as Table 5.8, Column 3 except for loan characteristics) (n=463)	0.257 (2.85)	0.102 (0.53)	-0.180 (0.41)	0.121 (1.00)	-0.094 (1.04)

Source: NERA calculations from 1993 NSSBF.

Notes: (1) Reported estimates are Probit derivatives, t-statistics in parentheses. (2) The sample consists of all firms that applied for loans along with those who needed credit, but did not apply for fear of refusal. (3) Failure to obtain credit includes those firms that were denied and those that did not apply for fear of refusal. (4) Dependent variable is set to one if the firm failed to obtain credit and to zero if the firm applied for credit and had their loan application approved.

H. Analysis of Credit Market Discrimination in the U.S. in 1998

We turn next to an examination of the extent to which discrimination in the credit market changed between 1993 and 1998 using data from the 1998 SSBF conducted by the Board of Governors of the Federal Reserve System.[130] This section revises the estimates obtained above using the earlier NSSBF. Compared to the earlier NSSBF, the overall sample size in the 1998 survey was somewhat smaller and several of the questions were altered. However, the results are

[130] The target population of the survey was for-profit businesses with fewer than 500 employees that were either a single establishment or the headquarters of a multiple establishment company, and were not agricultural firms, financial institutions, or government entities. These firms also had to be in business during December 1998. Data were collected for fiscal year-end 1998. Like its 1993 counterpart, the purpose of this survey was to gather information about small business financial behavior and the use of financial services and financial service providers by these firms. The objectives of the survey were to collect information that can inform researchers and policy makers on the availability of credit to small businesses; the location of the sources of financial services; the types of financial services used, including checking accounts, savings accounts, various types of credit, credit cards, trade credit, and equity injections; as well as the firm's recent credit acquisition experiences. The survey also investigated the level of debt held by these firms and their accessibility to credit. Additionally, the survey collected information on firm and owner demographics, as well as the firm's recent income statement and balance sheet.

still clear—African American-owned firms faced discrimination in the credit market. In addition, there is evidence of credit market discrimination against other types of minority-owned firms as well. Below, we present four sections of findings, all of which are consistent with those from the earlier NSSBF survey.

1. Qualitative Evidence

Consistent with the earlier survey, African American-owned firms in 1998 reported that the biggest problem their firm currently faced was "financing and interest rates" (Table 5.17). In the earlier survey, respondents were asked to report problems in the preceding 12 months (Tables 5.3 and 5.4) and over the next 12 months (Tables 5.5 and 5.6). Interestingly, even though credit availability was by far the most important category for African Americans (21 percent in Table 5.5), interest rates were relatively unimportant (2 percent). The 1998 survey, however, did not report separate categories.

Table 5.17. What is the Most Important Problem Facing Your Business Today?

	Non-minority Male	African American	Other	Hispanic	Non-minority Female	Total
Financing and interest rates	5.8%	18.2%	10.6%	8.1%	6.2%	6.8%
Taxes	7.7%	1.9%	5.3%	3.1%	6.6%	6.9%
Inflation	0.4%	0.6%	0.0%	1.0%	0.4%	0.4%
Poor sales	7.0%	5.9%	11.6%	7.0%	8.3%	7.5%
Cost/availability of labor	3.9%	3.3%	2.4%	3.5%	4.5%	3.9%
Government regulations/red tape	7.1%	3.0%	4.8%	8.1%	6.5%	6.8%
Competition (from larger firms)	11.1%	10.7%	10.6%	18.4%	10.2%	11.3%
Quality of labor	14.4%	11.0%	9.4%	8.7%	9.1%	12.6%
Cost and availability of insurance	2.6%	1.0%	0.8%	0.0%	2.3%	2.2%
Other	11.4%	10.0%	8.3%	16.0%	12.7%	11.7%
Cash flow	4.6%	10.9%	6.3%	3.5%	3.3%	4.6%
Capital other than working capital	1.1%	1.7%	4.1%	0.8%	1.3%	1.3%
Acquiring and retaining new customers	3.1%	3.9%	5.0%	1.8%	3.3%	3.2%
Growth of firm/industry	0.9%	1.0%	1.2%	0.1%	0.4%	0.8%
Overcapacity of firm/industry	0.1%	0.0%	0.0%	0.3%	0.0%	0.1%
Marketing/advertising	2.1%	3.9%	2.5%	2.8%	3.6%	2.5%
Technology	1.4%	1.2%	1.6%	2.6%	1.3%	1.5%
Costs, other than labor	2.7%	1.8%	2.5%	3.6%	3.8%	2.9%
Seasonal/cyclical issues	1.3%	1.2%	0.7%	0.4%	0.7%	1.1%
Bill collection	2.8%	2.2%	2.4%	2.6%	2.8%	2.8%
Too much work/not enough time	3.6%	2.2%	4.3%	1.4%	5.7%	3.9%
No problems	4.6%	4.3%	5.6%	5.8%	6.4%	5.1%
Not ascertainable	0.4%	0.0%	0.0%	0.0%	0.7%	0.4%

Source: NERA calculations from the 1998 SSBF (n=3,561).

Note: Results are weighted.

2. Differences in Loan Denial Rates by Race/Ethnicity

In 1998, as in the earlier survey, in comparison with firms owned by nonminority males, minority- and female-owned firms were less creditworthy, more likely to have their loan applications turned down, more likely not to apply for a loan for fear of being denied, and consistently smaller and younger. Moreover, their owners had lower amounts of both home and non-home equity. Minority-owned firms in general, and African American-owned firms in particular, were much less likely to be classified as having a "low risk" credit rating by Dun & Bradstreet.[131]

In the earlier survey, respondents were asked "During the last three years has the firm applied for credit or asked for the renewal of terms on an existing loan?" In 1998, a narrower question limited to new loans was asked—"Did the firm apply for new loans in the last three years?" In 1993, 43 percent answered the question in the affirmative compared with 27 percent in 1998. Despite the fact that in 1993 the question was broader, the pattern of denials by race and gender is similar across the years. As can be seen below, minority-owned firms were especially likely to have their loan applications denied.

Percentage of Loan Applications Denied

	1993	1998
Nonminority Males	26.2%	24.4%
African Americans	65.9%	62.3%
Asians/Pacific Islanders, Native Americans, *etc.*	39.9%	47.0%
Hispanics	35.9%	49.9%
Nonminority Females	30.1%	23.5%
Overall	28.8%	28.6%

Similarly, the proportion of firms reporting that they did not apply for fear of being denied is similar by race, ethnicity, and gender across the two survey years. More than half of African American owners did not apply for a loan for fear of being denied compared with only one out of five nonminority males.

Percentage Not Applying for Fear of Denial

	1993	1998
Nonminority Males	22.5%	20.2%
African Americans	60.7%	53.9%
Asians/Pacific Islanders, Native Americans, *etc.*	27.5%	23.1%
Hispanics	41.5%	34.3%
Nonminority Females	22.7%	24.2%
Overall	24.7%	23.3%

In the 1998 SSBF survey, respondents who were denied loans were asked if they believed there were reasons other than the official ones provided by their financial institution as to why their loan applications were turned down. Among numerous options provided were the following:

[131] Information on home and non-home equity or on the Dun & Bradstreet credit rating was not available in the 1993 survey.

a) Prejudice on a racial/ethnic basis.

b) Prejudice against women.

c) Prejudice against the business location.

d) Prejudice against the business type.

e) Prejudice or discrimination (not-specified or other).

Among firm owners who had applied for credit within the last three years and were denied, 34.1 percent believed there were reasons for their denial beyond the official explanation provided by the financial institution. Among nonminorities, 7.7 percent suspected some sort of prejudice. By contrast, the figure among minorities was 25.8 percent. Among owners who needed credit but did not apply for fear of denial, a similar pattern was observed. Only 1.7 percent of nonminorities stated prejudice was the reason, whereas among minorities the figure was 6.8 percent.

In Tables 5.8 and 5.9, the determinants of loan denial rates were estimated using data from the 1993 NSSBF. It was found that African American-owned firms were almost twice as likely to have their loans denied than nonminority male-owned firms, even after controlling for a host of variables included primarily to control for the possibility that minority-owned firms are smaller and less creditworthy than those owned by nonminority men.

A similar exercise is performed below in Tables 5.18 and 5.19 using data from the 1998 SSBF. Column 1 in Table 5.18 shows that African American-owned firms in 1998 had a 42.2 percentage point higher probability of denial than nonminority male-owned firms before taking account of creditworthiness of the firm or any other characteristics. For 1993, the comparable figure was 44.3 percentage points. The addition of a large number of controls reduces the percentage point differential for African Americans to 21.8 in Column 5 as the full set of controls is added. For 1993, the comparable figure was 24.1 percentage points.

The main difference between 1993 and 1998 is that now we find evidence that the probability of denial is significantly higher for Hispanic-owned firms as well as for African American-owned firms. In Table 5.18, Column 5, Hispanic-owned firms have a 17.1 percentage point higher probability of being denied than nonminority male-owned firms. In Table 5.8, by contrast, denial probabilities for Hispanic-owned firms were *not* significantly different from those of nonminority male-owned firms. If anything, discrimination in the small business credit market appears to have worsened during the late 1990s.

Table 5.18. Determinants of Loan Denial Rates—USA

	(1)	(2)	(3)	(4)	(5)
African American	0.422 (7.94)	0.254 (5.36)	0.217 (5.05)	0.192 (4.52)	0.218 (4.74)
Asian/Pacific Islander	0.148 (2.54)	0.129 (2.52)	0.049 (1.25)	0.023 (0.65)	0.028 (0.77)
Hispanic	0.353 (6.44)	0.269 (5.37)	0.211 (4.69)	0.183 (4.21)	0.171 (4.00)
Nonminority Female	0.087 (2.22)	0.049 (1.55)	0.024 (0.96)	0.016 (0.66)	0.011 (0.44)
Judgments		0.272 (4.28)	0.249 (4.32)	0.272 (4.47)	0.262 (4.20)
Firm delinquent		0.081 (2.88)	0.115 (4.20)	0.103 (3.88)	0.111 (4.01)
Personally delinquent		0.092 (2.85)	0.039 (1.59)	0.042 (1.69)	0.045 (1.76)
Bankrupt past 7 years		0.504 (4.48)	0.406 (3.83)	0.392 (3.67)	0.395 (3.64)
\$1998 sales (*10^8)		-0.000 (2.47)	-0.000 (0.26)	0.000 (0.02)	0.000 (0.03)
\$1998 firm equity (*10^8)		0.000 (1.40)	0.000 (0.46)	0.000 (0.20)	0.000 (0.06)
Owner home equity (*10^8)		0.000 (0.52)	0.000 (1.47)	0.000 (0.96)	0.000 (0.90)
Owner net worth (*10^8)		-0.000 (1.25)	-0.000 (1.28)	-0.000 (1.19)	-0.000 (1.24)
Owner years of experience		-0.002 (1.42)	-0.001 (0.49)	-0.000 (0.34)	-0.000 (0.21)
Owner share of business		0.000 (0.75)	-0.000 (0.12)	0.000 (0.03)	-0.000 (0.33)
Dun & Bradstreet credit ratings (4 variables)	No	Yes	Yes	Yes	Yes
Owner Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Geographic Division (8 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	924	924	924	924	905
Pseudo R^2	.1061	.2842	.3714	.3910	.4015
Chi^2	90.0	241.1	315.1	331.8	337.8
Log likelihood	-379.3	-303.7	-266.7	-258.3	-251.7

Source: See Table 5.17.

Notes: (1) Reported estimates are derivatives from Probit models, t-statistics are in parentheses. (2) "Other firm characteristics" include variables indicating whether the firm had a line of credit, 1998 full time equivalent employment, firm age, metropolitan area, legal form of organization (sole proprietorship, partnership, LLP, S-corporation, C-corporation, or LLC), existing long run relation with lender, geographic scope of market (regional, national, foreign or international), the value of the firm's inventory, the firm's cash holdings, and the value of land held by the firm. (3) "Characteristics of the loan" includes the size of the loan applied for.

Table 5.19. Determinants of Loan Denial Rates—WSC

	(1)	(2)	(3)	(4)	(5)
African American	0.395 (6.70)	0.205 (4.10)	0.185 (4.09)	0.164 (3.65)	0.187 (3.86)
Asian/Pacific Islander	0.155 (2.51)	0.149 (2.68)	0.066 (1.52)	0.040 (0.99)	0.043 (1.05)
Hispanic	0.331 (5.27)	0.259 (4.66)	0.213 (4.26)	0.182 (3.74)	0.168 (3.55)
Nonminority Female	0.094 (2.25)	0.057 (1.68)	0.033 (1.21)	0.027 (1.00)	0.023 (0.85)
African American*WSC	0.089 (0.78)	0.131 (1.22)	0.059 (0.72)	0.070 (0.82)	0.077 (0.87)
Asian/Pacific Islander*WSC	-0.044 (0.31)	-0.069 (0.88)	-0.055 (1.04)	-0.050 (0.95)	-0.047 (0.84)
Hispanic*WSC	0.054 (0.51)	-0.004 (0.06)	-0.022 (0.41)	-0.002 (0.04)	-0.001 (0.01)
Nonminority Female*WSC	0.094 (2.25)	0.057 (1.68)	0.033 (1.21)	0.027 (1.00)	0.023 (0.85)
WSC division	0.000 (0.00)	0.039 (0.81)	0.041 (0.99)	0.016 (0.29)	0.016 (0.30)
Creditworthiness Controls (8 variables)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (7 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	924	924	924	924	905
Pseudo R^2	.1080	.2907	.3764	.3950	.4059
Chi^2	91.7	246.6	319.35	335.2	341.5
Log likelihood	-378.4	-301.0	-264.6	-256.7	-249.9

Source: See Table 5.17.

Notes: (1) t-statistics in parentheses. (2) Other creditworthiness controls are the four other variables included in Column 2 of Table 5.18.

Table 5.19, focusing on the WSC division, yields similar results—showing significantly larger denial probabilities for African American-owned firms and Hispanic-owned firms (18.7 and 16.8 percent, respectively) than for nonminority male-owned firms. The WSC indicator was not significant in Table 5.19. None of the interaction terms between WSC and race, ethnicity or gender, were significant either, indicating that the loan denial results for the WSC are not significantly different than for the nation as a whole.

Although tempered by the smaller sample size available, the quality of the experiment is somewhat better using the 1998 data than it was using the 1993 data due to the availability of an improved set of controls for the creditworthiness of the firm and its owner. In 1998, three new variables are included regarding the financial viability of the firm:

a) The value of the equity, if any, in the owner's home.

b) The owner's net worth excluding home equity and equity in the firm.

c) The firm's Dun & Bradstreet credit rating in five categories (low, moderate, average, significant, and high) indicating the likelihood of loan default.[132]

Despite the fact that these new variables do help to predict loan denials,[133] the estimated race differences including these variables are unchanged from those reported above.[134] This suggests that the large estimated differences in the denial probabilities estimated in 1993 were not biased significantly upwards by the fact that these variables were unavailable.

3. Effect of 1998 Survey Design Changes on Differences in Loan Denial Rates

The question we used to examine the 1998 data was somewhat narrower than the question used in the 1993 survey because it was changed by the survey designers. The 1998 question asked about new loans over the preceding three years, whereas the 1993 question covered all loans including renewals. Responses in 1998 were as follows:

Applied for New Loans Last Three Years	Number	Percent
Did not apply	2,599	73.0%
Always approved	713	20.0%
Always denied	166	4.7%
Sometimes approved/sometimes denied	83	2.3%
Total	3,561	100.0%

The dependent variable used in Tables 5.18 and 5.19 was set to one if the loan application was always denied and was set to zero if the application was always approved or sometimes approved/sometimes denied. An alternative dependent variable–*denylast*–is set to one if the application is always denied, set to zero if always approved. Those responding "sometimes approved/sometimes denied" are excluded from the analysis. Column (1) of Table 5.20 replicates column 1 of Table 5.18 using *denylast* as the dependent variable with the smaller sub-sample. African Americans, Hispanics, Asians, and Nonminority females are all confirmed to face higher denial rates than nonminority males using this specification. For African Americans and Hispanics, the difference is 46 and 36 percentage points, respectively. For Asians, the difference is 19 percentage points, and for Nonminority females, 8 percentage points.

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[132] The D&B Commercial Credit Score Report predicts the likelihood of a company paying in a delinquent manner (90+ days past terms) during the next 12 months based on the information in D&B's file. The score is intended to help firms decide quickly whether to accept or reject accounts, adjust terms or credit limits, or conduct a more extensive review based on the report D&B provides. Firms can also determine the company's relative ranking among other businesses in the D&B database.

[133] The coefficients and t-statistics on the credit score variables when they were included alone in a U.S. loan denial model was as follows: moderate risk = .228 (2.45); average risk = .295 (3.25); significant risk =.319 (3.28); high risk = .391 (3.53); n =924 pseudo r^2 =.0253. Excluded category "low risk." Results were essentially the same when a control for WSC was also included.

[134] This confirms the findings of Cavalluzzo, Cavalluzzo and Wolken (2002) who performed a similar exercise with the 1993 data.

Results consistent with discrimination are confirmed for African Americans and Hispanics in Column (2) of Table 5.20 when a host of demographic and financial characteristics and geographic and industry indicators are included. When interaction terms for the WSC division are added to the model as in Columns (3) and (4), results for African Americans and Hispanics remain statistically significant. Neither the WSC indicator nor any of the interactions between WSC and race, ethnicity, or gender is significant.

Table 5.20. More Loan Denial Probabilities

	(1)	**(2)**	**(3)**	**(4)**
	Denylast	***Denylast***	***Denylast***	***Denylast***
African American	0.457 (8.00)	0.246 (4.76)	0.439 (6.82)	0.220 (3.91)
Asian	0.185 (2.81)	0.027 (0.65)	0.183 (2.67)	0.037 (0.81)
Hispanic	0.360 (6.28)	0.171 (3.67)	0.342 (5.15)	0.167 (3.21)
Nonminority female	0.083 (2.00)	0.005 (0.20)	0.087 (1.98)	0.015 (0.50)
African American* WSC			0.066 (0.57)	0.054 (0.61)
Asian* WSC			0.006 (0.03)	-0.041 (0.50)
Hispanic* WSC			0.056 (0.50)	0.005 (0.07)
Nonminority female* WSC			-0.032 (0.27)	-0.043 (0.81)
WSC			-0.015 (0.26)	0.021 (0.34)
Creditworthiness Controls	No	Yes	No	Yes
Owner's Education	No	Yes	No	Yes
Other Firm Characteristics	No	Yes	No	Yes
Characteristics of the loan	No	Yes	No	Yes
Region	No	Yes	No	Yes
Industry	No	Yes	No	Yes
N	846	846	846	846
Pseudo R^2	.1112	.4265	.1121	.4286
Chi^2	90.9	348.7	91.7	350.5
Log likelihood	-363.3	-234.5	-363.0	-233.6

Source: See Table 5.18.

4. Differences in Interest Rates, Credit Card Use, and Failure to Apply for Fear of Denial

Tables 5.21 through 5.23 provide confirmation from the 1998 survey of a number of other results from the 1993 survey reported above.

First, Table 5.21, which is similar to Tables 5.13 and 5.14, finds that conditional on obtaining a loan, African American-owned firms are charged a higher price for their credit—on average 1.06 percentage points nationally, and 1.32 percentage points in the WSC. These results are not significantly different in the construction sector either.[135]

In Table 5.22, which is similar to Table 5.15, shows that African American-owned firms are much more likely not to apply for a loan for fear that they will be denied. Based on all of the foregoing evidence, this is perhaps a sensible decision—if and when they do apply they are almost twice as likely as nonminority male-owned firms to have their application rejected. This is evident in the WSC as well as in the construction sector. There is some evidence of this phenomenon for Hispanic-owned firms nationally as well.

Finally, Table 5.23, which is comparable to Tables 5.11 and 5.12, suggests that when the financial institution does not know the race or ethnicity of the applicant—as is often the case in an application for a credit card—there are no differences by race or ethnicity in the usage for business purposes of either business or personal credit cards. There was also no evidence of any race effects in the use of business or personal credit cards in the WSC division (rows 3 and 4) or in construction (rows 5 and 6).

Our confidence in the strength of our findings from the earlier NSSBF survey is elevated by these findings from the 1998 SSBF survey, which strongly confirm the original results. Unfortunately, African Americans continued to be discriminated against in the market for small business credit. By 1998, this discrimination appears to have been on the increase for African Americans and to be expanding to impact other minority groups, such as Hispanics and Asians/Pacific Islanders, as well. This is an important market failure, and one which government agencies such as the City of San Antonio cannot ignore if they are to avoid passive participation in a discriminatory market area.

[135] There is some indication that White females nationally pay slightly less for their loans, but this difference is not quite statistically significant. Blacks in the WSC appear to pay less for their loans than Blacks nationally, but again this difference is not quite statistically significant.

Table 5.21. Models of Interest Rate Charged

Specification	African American	African American * WSC	African American * Construc-tion	Asian/ Pacific Islander	Hispanic	Non-minority Female
1a) All Loans (as in column 5 of Table 5.18) n=765	1.064 (2.66)	-	-	0.559 (1.49)	-0.088 (0.23)	-0.501 (1.93)
1b) All Loans (as in column 5 of Table 5.19) n=765	1.319 (2.86)	-1.875 (1.84)	0.635 (0.63)	0.337 (0.78)	0.167 (0.35)	-0.419 (1.47)

Source: See Table 5.18.

Notes: (1) Each line of this table represents a separate regression with all of the control variables. (2) The sample consists of firms who had applied for a loan and had their application approved.

Table 5.22. Racial Differences in Failing to Apply for Loans Fearing Denial

Specification	African American	Asian/Pacific Islander	Hispanic	Nonminority Female
a) U.S.				
No Other Control Variables (n=3,448)	0.353 (11.90)	0.046 (1.48)	0.173 (5.77)	0.051 (2.55)
Full Set of Control Variables (n=3,448)	0.208 (7.04)	-0.012 (0.43)	0.052 (1.87)	0.011 (0.59)
b) WSC division				
No Other Control Variables (n=371)	0.407 (4.78)	-0.026 (0.25)	0.075 (1.13)	0.018 (0.28)
Full Set of Control Variables (n=367)	0.178 (2.67)	-0.053 (1.15)	-0.039 (1.15)	-0.012 (0.36)
c) Construction				
No Other Control Variables (n=613)	0.371 (5.06)	0.117 (1.43)	0.020 (0.26)	0.122 (2.08)
Full Set of Control Variables (n=609)	0.273 (3.69)	0.099 (1.32)	-0.062 (1.13)	0.038 (0.74)

Source: See Table 5.18.

Notes: (1) Reported estimates are Probit derivatives with t-statistics in parentheses. (2) Full set of control variables as in Column 5 of Table 5.18, except for loan amount, year of application, and type of lender.

Table 5.23. Models of Credit Card Use

Specification	African American	Asian/Pacific Islander	Hispanic	Nonminority Female	Sample Size
1) Business Credit Card	-0.001 (0.02)	-0.038 (1)	-0.014 (0.38)	-0.018 (0.72)	3,561
2) Personal Credit Card	-0.018 (0.54)	0.016 (0.44)	-0.050 (1.42)	0.012 (0.52)	3,561
3) Business Credit Card WSC	-0.002 (0.02)	-0.196 (1.55)	-0.041 (0.46)	0.082 (1.01)	382
4) Personal Credit Card WSC	-0.078 (0.80)	0.197 (1.49)	-0.003 (0.03)	0.079 (0.98)	382
5) Business Credit Card Construction & related	0.056 (0.62)	-0.074 (0.7)	0.087 (0.86)	-0.025 (0.35)	624
6) Personal Credit Card Construction & related	0.003 (0.04)	0.047 (0.46)	-0.092 (1.01)	-0.073 (0.99)	624

Source: See Table 5.18.

Notes: (1) Each line of this table represents a separate regression with the same control variables as Column 5 of Table 5.18, except for loan amount, year of application, and type of lender. (2) The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. (3) In all specifications, the sample size includes all firms. (4) Reported estimates are Probit derivatives with t-statistics in parentheses.

I. Analysis of Credit Market Discrimination in the U.S. in 2003

The most recent wave of the Survey of Small Business Finances was made available by the Board of Governors of the Federal Reserve System in 2007.[136] This is the fourth and final survey of U.S. small businesses conducted by the Board of Governors since 1987.[137] The survey gathered data from 4,072 firms selected to be representative of small businesses operating in the U.S. at the end of 2003. The survey covered a nationally representative sample of U.S. for profit, non-financial, non-subsidiary, nonagricultural, and nongovernmental businesses with fewer than 500 employees that were in operation at year end 2003 and at the time of interview. Most interviews took place between June 2004 and January 2005. The sample was drawn from the Dun & Bradstreet Market Identifier file. The number of employees varied from zero to 486 with a weighted median of 3.0 and weighted mean of 8.6.

[136] *See* www.federalreserve.gov/pubs/oss/oss3/ssbf03/ssbf03home.html.

[137] The Federal Reserve Board cancelled the SSBF subsequent to the completion of the 2003 wave, ostensibly for financial reasons. *See* Robb (2010).

Unfortunately, the 2003 SSBF did not over-sample minority-owned firms, as in the first three survey waves. According to survey staff, this was due to concerns that doing so would delay the survey timeline and reduce the overall response rate.[138]

In 1998, almost 8 percent of survey respondents were African American, compared to slightly more than 3 percent in 2003. Hispanics were almost 7 percent in 1998 but less than 4 percent in 2003. Other minorities were 6.5 percent in 1998 but only 5.4 percent in 2003.[139] Although the population weights were adjusted to accommodate these changes, even these weighted percentages are significantly smaller for minorities in 2003 than in 1998.[140]

Mach and Wolken (2006) reported using these data that 13.1 percent of firms were owned by nonminority or Hispanic individuals; the share is statistically lower than in 1998 (14.6 percent). The shares for African Americans and Asians/Pacific Islanders each held roughly constant at 46 percent; the share of American Indians and Alaska natives held at roughly 16 percent. However, the share of Hispanics fell a statistically significant amount from 5.66 percent to 4.26 percent, which is somewhat surprising given the evidence that Hispanics are a growing share of the U.S. population—up from 12.56 percent in 2000 to 14.56 percent in 2005 (Table 4). The percentage of firms owned by females also declined from 72.06 percent to 64.86 percent. Despite these drawbacks, our analysis of the 2003 SSBF yields results that are strongly consistent with those obtained from the 1993 and 1998 survey waves. The remainder of this section presents our findings from this analysis.[141]

1. Qualitative Evidence

Table 5.24 reports the results of asking business owners for the most important problem currently facing their firm. Consistent with the 1993 and 1998 surveys, firms owned by minority and women-owned firms were more likely to say that their most important problem was "financing and interest rates." Once again, the African American-nonminority difference was most pronounced—only slightly more than 5 percent of nonminority male business owners reported this as their major problem compared to almost 21 percent of African American business owners.

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[138] *See* fn. 95, above.

[139] The impact on women was not as pronounced. Females were 23.3 percent in 1998 and 20.9 percent in 2003. For nonminority females, the figures are 17.8 percent in 1998 and 18.2 percent in 2003.

[140] Mach and Wolken (2006, Table 2) report that weighted figures for Blacks were 4.1 percent in 1998 and 3.7 percent in 2003. Hispanics were 5.6 and 4.2 percent, respectively; Asians and Pacific Islanders were 4.4 and 4.2 percent, respectively; Native Americans were 0.8 and 1.3 percent, respectively; and women were 24.3 and 22.4 percent, respectively.

[141] The data file provided by the Board of Governors includes five separate observations per firm. That is to say, there are 4240*5=21,200 observations. These so-called multiple imputations are done via a randomized regression model, and are included because where there are missing observations several alternative estimates are provided. Where values are not missing, the values for each of the five imputations are identical. We make use of the data from the first imputation: the results presented here are essentially identical whichever imputation is used. Overall, only 1.8 percent of observations in the data file were missing.

Table 5.24. What is the Most Important Problem Facing Your Business Today?

	Non-minority Male	African American	Other	Hispanic	Non-minority Female	Total
Financing and interest rates	5.4%	20.7%	9.1%	5.7%	5.8%	6.3%
Taxes	6.3%	2.4%	4.9%	7.7%	4.3%	5.7%
Inflation	2.7%	1.0%	2.3%	0.5%	1.4%	2.3%
Poor sales or profitability	17.8%	38.5%	28.9%	30.0%	22.5%	20.6%
Cost/availability of labor	1.5%	0.0%	0.6%	1.5%	1.5%	1.4%
Government regulations/red tape	4.7%	1.0%	5.4%	9.6%	2.5%	4.5%
Competition from larger firms	4.0%	2.7%	2.7%	3.6%	3.6%	3.8%
Quality of labor	7.9%	6.9%	5.0%	3.8%	6.5%	7.2%
Cost and availability of insurances	10.3%	1.8%	3.1%	5.2%	6.4%	8.6%
Other	2.6%	1.9%	4.0%	2.8%	1.6%	2.5%
None	5.3%	3.4%	9.4%	4.1%	8.6%	6.0%
Cash flow	6.2%	5.1%	4.6%	7.1%	6.8%	6.3%
Growth	0.9%	2.7%	0.4%	1.1%	0.8%	1.0%
Foreign competition	1.3%	0.0%	1.0%	0.1%	0.7%	1.0%
Competition - other	1.6%	0.8%	1.8%	0.1%	1.1%	1.4%
Availability of materials/resources	0.8%	0.8%	0.6%	1.6%	1.2%	0.9%
Labor problems other than cost or quality	1.2%	2.2%	0.2%	0.0%	1.3%	1.1%
Internal management/administrative problems	4.2%	2.5%	4.3%	1.0%	6.1%	4.4%
Environmental constraints	1.4%	0.7%	1.6%	2.3%	2.0%	1.6%
Advertising and public awareness	2.2%	1.8%	2.4%	1.8%	3.3%	2.4%
Market/economic/industry factors	4.9%	1.9%	4.0%	2.3%	6.2%	4.8%
Health care cost and availability	1.5%	0.0%	0.7%	0.8%	1.4%	1.4%
Energy costs	1.5%	0.0%	0.7%	3.7%	1.2%	1.4%
Costs other than health care and energy	2.2%	1.0%	0.1%	3.6%	1.0%	1.9%
Owner's personal problems	0.3%	0.0%	0.0%	0.0%	0.8%	0.4%
Technology	0.4%	0.0%	0.7%	0.0%	0.5%	0.4%
Dealing with insurance companies	0.3%	0.4%	0.0%	0.0%	0.4%	0.3%
War and September 11th	0.2%	0.0%	1.3%	0.0%	0.5%	0.3%

Source: NERA calculations from the 2003 SSBF (n=4,072).

Note: Results are weighted.

2. Differences in Loan Denial Rates by Race/Ethnicity

Tables 5.25 and 5.26 present estimates of loan denial probabilities for the nation as a whole and for the WSC division using a regression model comparable to that used with the 1993 and 1998 survey waves.[142]

Column (1) in Table 5.25 (comparable to Table 5.8 for 1993 and 5.18 for 1998) shows that African American-owned firms in 2003 had a 45.9 percentage point higher probability of denial than nonminority male-owned firms before taking into account the creditworthiness of the firm or any other characteristics. The addition of a large number of controls reduces the percentage point differential for African Americans to 9.4 in Column (5) as the full set of controls is added. The coefficients in Column (5) for nonminority females and for Native American and other minority groups are not significant, however.

Table 5.26 (comparable to Table 5.9 for 1993 and 5.19 for 1998) focuses on the WSC division and yields similar results—showing significantly larger denial probabilities for African American-owned firms than for nonminority male-owned firms, persisting even after the addition of all of the control variables. The WSC indicator was not significant in Table 5.26, and with one exception, neither were the interaction terms between WSC and race, ethnicity or gender, indicating that the loan denial results for the WSC are not significantly different than for the nation as a whole. The exception was Asian/Pacific Islander-owned firms, which shows a significantly higher denial probability in the WSC than in the nation as a whole.

[142] In 2003, the credit application question was changed from 1998 to once again include requests for renewals as well as new loans, making it comparable to the 1993 version.

Table 5.25. Determinants of Loan Denial Rates—USA

	(1)	(2)	(3)	(4)	(5)
African American	0.459 (8.38)	0.136 (5.47)	0.105 (4.80)	0.091 (5.04)	0.094 (4.95)
Asian/Pacific Islander	0.055 (1.51)	0.020 (1.59)	0.009 (1.01)	0.002 (0.49)	0.001 (0.18)
Hispanic	0.067 (1.74)	0.008 (0.83)	0.004 (0.58)	0.001 (0.30)	0.001 (0.25)
Native American and Other	0.184 (2.22)	0.061 (1.95)	0.032 (1.47)	0.021 (1.43)	0.021 (1.49)
Nonminority Female	0.043 (2.17)	0.003 (0.70)	0.002 (0.49)	0.001 (0.57)	0.002 (0.76)
Judgments against owner		0.007 (0.66)	0.003 (0.35)	0.003 (0.54)	0.006 (0.90)
Judgments against firm		0.005 (1.16)	0.005 (1.42)	0.001 (0.54)	0.001 (0.64)
Firm delinquent		0.032 (3.78)	0.021 (3.23)	0.019 (3.89)	0.021 (4.08)
Personally delinquent		-0.007 (0.69)	-0.006 (1.02)	-0.003 (0.82)	-0.002 (0.58)
Owner Bankrupt past 7 years		0.046 (1.36)	0.041 (1.35)	0.052 (1.81)	0.044 (1.66)
Firm Bankrupt past 7 years		0.000 (0.03)	0.003 (0.37)	0.001 (0.17)	-0.001 (0.38)
\$1998 sales (*10^8)		-0.000 (1.68)	0.000 (0.04)	0.000 (0.29)	0.000 (0.51)
\$1998 firm equity (*10^8)		-0.000 (2.23)	-0.000 (1.03)	-0.000 (1.62)	-0.000 (1.63)
Owner home equity (*10^8)		0.000 (0.28)	0.000 (0.02)	-0.000 (0.45)	-0.000 (0.26)
Owner net worth (*10^8)		-0.000 (2.97)	-0.000 (2.92)	-0.000 (3.06)	-0.000 (3.26)
Owner years of experience		0.000 (0.31)	0.000 (1.00)	0.000 (0.82)	0.000 (0.62)
Owner share of business		0.000 (0.08)	0.000 (0.61)	0.000 (0.38)	0.000 (0.47)
Dun & Bradstreet credit ratings (4 variables)	No	Yes	Yes	Yes	Yes
Owner Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Geographic Division (8 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	1,664	1,655	1,655	1,655	1,605
Pseudo R^2	.0850	.2267	.2901	.3336	.3681
Chi^2	74.1	192.9	246.8	283.8	310.3
Log likelihood	-399.1	-328.9	-301.9	-283.4	-266.4

Source: See Table 5.26. Notes: (1) "Other firm characteristics" include variables indicating whether the firm had a line of credit, 2003 total employment, firm age, metropolitan area, legal form of organization (sole proprietorship, partnership, LLP, S-corporation, C-corporation, or LLC), existing long run relation with lender, geographic scope of market (local, regional, national, foreign or international), the value of the firm's inventory, the firm's cash holdings, the value of land held by the firm, and total salaries and wages paid. (2) "Characteristics of the loan" includes the size of the loan applied for.

Table 5.26. Determinants of Loan Denial Rates—WSC

	(1)	(2)	(3)	(4)	(5)
African American	0.414 (7.35)	0.113 (5.05)	0.084 (4.41)	0.076 (4.67)	0.077 (4.63)
Asian/Pacific Islander	0.017 (0.50)	0.004 (0.46)	-0.001 (0.14)	-0.002 (0.83)	-0.002 (1.17)
Hispanic	0.066 (1.77)	0.007 (0.80)	0.003 (0.55)	0.001 (0.26)	0.001 (0.19)
Native American and Other	0.129 (1.53)	0.042 (1.51)	0.016 (0.95)	0.006 (0.64)	0.007 (0.81)
Nonminority Female	0.037 (1.93)	0.002 (0.54)	0.001 (0.29)	0.001 (0.40)	0.001 (0.65)
African American*WSC	0.277 (1.81)	0.058 (1.02)	0.036 (0.89)	0.020 (0.82)	0.015 (0.72)
Asian/Pacific Islander*WSC	0.581 (2.79)	0.568 (3.02)	0.683 (3.23)	0.710 (3.52)	0.726 (3.51)
Native American and Other*WSC	0.367 (1.46)	0.142 (1.23)	0.187 (1.45)	0.198 (1.61)	0.134 (1.43)
Nonminority Female*WSC	0.037 (1.93)	0.002 (0.54)	0.025 (0.82)	0.020 (0.90)	0.011 (0.64)
WSC division	-0.063 (2.48)	-0.012 (2.51)	-0.008 (2.63)	-0.005 (2.42)	0.002 (0.51)
Creditworthiness Controls (10 variables)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (7 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	1,664	1,655	1,655	1,655	1,605
Pseudo R^2	.1013	.2469	.3133	.3513	.3858
Chi^2	88.4	210.0	266.5	298.8	325.3
Log likelihood	-392.0	-320.3	-292.1	-275.9	-258.9

Source: See Table 5.24.

Notes: (1) t-statistics in parentheses. (2) Creditworthiness controls include presence of legal judgments against the firm during the previous 3 years, more than 60 days delinquent on any personal obligations of the firm's owner during the previous 3 years, more than 60 days delinquent on any business obligations of the firm during the previous 3 years, and declaration of owner of firm bankruptcy during the previous 7 years. (3) Balance sheet variables include firm sales in 1998, firm equity in 1998, owner's home equity in 1998, and owner's personal net worth (exclusive of firm equity and home equity) in 1998. (4) For other variables, see notes for Table 5.25.

3. Differences in Interest Rates, Credit Card Use, and Failure to Apply for Fear of Denial

Table 5.27 models the interest rate charged for those minority-owned and nonminority female-owned firms that were able to successfully obtain a loan (comparable to Tables 5.13 and 5.14 for 1993 and Table 5.21 for 1998). As was found in earlier surveys, African American business owners are hurt here as well since they have to pay, on average, 1.04 percentage points more for their loans than nonminority male business owners with identical characteristics. Hispanic business owners, as well, pay 1.00 percentage point more than their nonminority male counterparts.

Table 5.27 shows that the loan price differential is present for African American and Hispanic business owners in the WSC division as well. For African American-owned firms, the differential is particularly large—more than 3.70 percentage points more than comparable nonminority males. For Hispanic-owned firms, the differential is 1.20 percentage points. Both results are statistically significant.

Table 5.28 reports the results of estimating a model where the dependent variable is whether a business or personal credit card is used to pay business expenses (comparable to Tables 5.11 and 5.12 for 1993 and Table 5.23 for 1998). As noted above, the application procedure for business and personal credit cards is usually automated and not conducted face-to-face. If there were missing variables such as creditworthiness or some such characteristic unobserved to the econometrician, then the race and ethnicity indicator variables should enter significantly in these equations. There is some evidence that African Americans are less likely to use personal credit cards for business expenses. However, this result is not observed for business credit cards, nor is it observed in the WSC division. There is also some evidence that Hispanics in the WSC are less likely to use personal credit cards for business expenses; however, this result does not carry over to business credit cards, nor is it observed in the nation as a whole.

Table 5.27. Models of Interest Rate Charged

Specification	African American	African American* WSC	African American * Construction	Asian/ Pacific Islander	Hispanic	Native American and Other	Non-minority Female
1a) All Loans (as in column 5 of Table 5.25) n=1,537	1.043 (2.02)	-		0.442 (1.24)	1.003 (2.76)	0.257 (0.34)	-0.142 (0.72)
1b) All Loans (as in column 5 of Table 5.26) n=1,537	0.766 (1.30)	2.959 (1.86)	-0.641 (0.46)	0.539 (1.33)	1.196 (2.65)	0.636 (0.76)	-0.210 (0.95)

Source: See Table 5.24.

Notes: (1) Each line of this table represents a separate regression with all of the control variables as indicated. (2) Additionally, controls were included for whether the loan required a co-signer or guarantor, whether collateral was required and, if so, the type of collateral required. (3) The sample consists of firms that had applied for a loan and had their application approved.

Table 5.28. Models of Credit Card Use

Specification	African American	Asian/ Pacific Islander	Hispanic	Native American and Other	Non-minority Female	Sample Size
1) Business Credit Card	-0.063 (1.19)	0.037 (0.84)	-0.005 (0.10)	-0.010 (0.12)	0.002 (0.07)	3,676
2) Personal Credit Card	-0.132 (2.66)	0.036 (0.86)	-0.078 (1.72)	-0.037 (0.44)	0.036 (1.56)	3,676
3) Business Credit Card WSC	0.052 (0.28)	-0.142 (0.77)	0.117 (0.96)	-0.001 (0.00)	0.106 (1.27)	354
4) Personal Credit Card WSC	-0.066 (0.37)	0.189 (1.07)	-0.242 (2.12)	-0.269 (1.13)	0.014 (0.17)	354

Source: See Table 5.24.

Notes: (1) Each line of this table represents a separate regression with the same control variables as Column 5 of Table 5.27, except for loan amount, year of application, and type of lender. (2) The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. (3) In all specifications, the sample size is all firms. (4) Reported estimates are Probit derivatives with t-statistics in parentheses.

Finally, consistent with earlier results, Table 5.29 (comparable to Tables 5.15 for 1993 and 5.22 for 1998), shows that African American owners are much more likely not to apply for a loan fearing they will be denied. Even after controlling for a host of demographic, financial, geographic, and industry factors, African American business owners are still almost 17 percentage points more likely to fail to apply for loans for fear of denial—even though they need the credit. In the WSC division the phenomenon is evident as well—African American business owners are more than 18 percentage points more likely to fail to apply for fear of denial. In construction and related industries, the trend is even more pronounced at 28.4 percentage points. Nationally, there is evidence of this phenomenon for nonminority female business owners as well.

Table 5.29. Racial Differences in Failing to Apply for Loans Fearing Denial

Specification	African American	Asian/ Pacific Islanders	Hispanic	Native American and Other	Non-minority Female
a) U.S.					
No Other Control Variables (n=3,704)	0.385 (9.48)	0.059 (1.95)	0.138 (4.01)	0.138 (2.14)	0.072 (4.47)
Full Set of Control Variables (n=3,676)	0.168 (4.75)	0.037 (1.37)	0.048 (1.76)	0.047 (0.93)	0.035 (2.44)
b) WSC division					
No Other Control Variables (n=3,704)	0.382 (8.82)	0.050 (1.6)	0.142 (4.11)	0.123 (1.73)	0.064 (3.81)
Full Set of Control Variables (n=3,676)	0.184 (4.87)	0.033 (1.17)	0.052 (1.89)	0.067 (1.14)	0.029 (1.95)
c) Construction					
No Other Control Variables (n=705)	0.492 (4.34)	-0.022 (0.29)	0.090 (1.22)	0.258 (2.17)	0.026 (0.64)
Full Set of Control Variables (n=695)	0.284 (3.02)	0.003 (0.07)	-0.010 (0.38)	0.136 (1.64)	-0.002 (0.09)

Source: See Table 5.24.

Notes: (1) Reported estimates are Probit derivatives with t-statistics in parentheses. (2) Full set of control variables as in Column 5 of Table 5.27, except for loan amount, year of application, and type of lender. (3) In Panel (b), interaction terms between race, gender and WSC were all insignificant.

J. Further Analysis of Credit Market Discrimination: NERA Surveys 1999-2007

NERA conducted local credit market surveys at nine other times and places between 1999 and 2007. These include the Chicago metropolitan area in 1999, the State of Maryland in 2000, the Jacksonville, Florida metropolitan area in 2002, the Baltimore-Washington, DC metropolitan area in 2003, the St. Louis metropolitan area in 2004, the Denver metropolitan area in 2005, the State of Maryland (again) in 2005, the State of Massachusetts in 2005, and the Memphis, TN-MS-AR metropolitan area in 2007. The Chicago, Jacksonville, Baltimore, St. Louis, and Denver surveys focused on construction and construction-related industries, while the two Maryland surveys, the Massachusetts survey and the Memphis survey included other goods and services as well.

Our Chicago, Maryland I, and Jacksonville survey questionnaires followed the format of the 1993 NSSBF, while our Baltimore, St. Louis, Denver, Maryland II, Massachusetts, and Memphis surveys followed the format of the 1998 SSBF questionnaire.

As a final check on our findings in this chapter, we combined the results of these nine NERA surveys together in a consistent format and re-estimated the basic loan denial model on this larger file. These results appear below in Table 5.30, and are remarkably similar to results seen in Tables 5.8-5.9, 5.18-5.19, and 5.25-5.26. Denial probabilities for African American-owned firms compared to nonminority male-owned firms are 29 percentage points higher—even when creditworthiness controls, other firm and owner characteristics, and interaction terms are included.

Moreover, the NERA surveys found statistically significant loan denial disparities for Hispanic-owned firms and Nonminority female-owned firms as well. Denial rates were 18-24 percentage points higher for Hispanic-owned firms and 5-9 percentage points higher for Nonminority female-owned firms than for their nonminority male-owned counterparts. Significant loan denial disparities were also observed for Native American-owned firms in some cases (9-19 percentage points higher).

Finally, as shown in Table 5.31, we modeled the rate of interest charged, conditional upon receiving loan approval, using our nine-jurisdiction dataset. Results are very similar to that observed in Tables 5.13-5.14, 5.21 and 5.27. African Americans pay almost 170 basis points more, on average, for their business credit than do nonminority males, declining to 150 basis points when creditworthiness and other firm and owner controls are accounted for.

On the basis of the foregoing, we conclude that the evidence of credit discrimination from NERA's nine local credit market surveys conducted throughout the nation between 1999-2007 is entirely consistent with the results obtained using data from the 1993 NSSBF, the 1998 SSBF, and the 2003 SSBF.

Table 5.30. Determinants of Loan Denial Rates—Nine Jurisdictions

	(1)	(2)
	Most Recent Application	***Last Three Years***
African American	0.289 (8.2)	0.293 (7.60)
Hispanic	0.178 (3.86)	0.244 (4.59)
Native American	0.087 (1.69)	0.188 (3.29)
Asian	0.042 (0.72)	0.003 (0.05)
Other race	0.313 (3.07)	0.364 (3.15)
Nonminority female	0.046 (1.83)	0.086 (2.96)
Judgments	0.051 (1.23)	0.119 (2.24)
Firm delinquent	0.022 (2.7)	0.057 (5.90)
Personally delinquent	0.076 (7.38)	0.077 (6.03)
Bankrupt past 3yrs	0.228 (3.99)	0.328 (4.74)
N	1,855	1,855
Pseudo R^2	.1905	.1721
Chi^2	336.0	363.3
Log likelihood	-714.1	-873.7

Source: NERA Credit Market Surveys, 1999-2007.

Notes: (1) Reported estimates are derivatives from Probit models, t-statistics are in parentheses. (2) Indicator variables are also included for the various jurisdictions.

Table 5.31. Determinants of Interest Rates—Nine Jurisdictions

	(1)	(2)
African American	1.683 (3.44)	1.491 (2.98)
Asian/Pacific Islander	1.221 (2.16)	0.789 (1.34)
Hispanic	0.820 (1.48)	0.895 (1.56)
Native American	1.241 (1.52)	1.008 (1.24)
Other race	-1.115 (0.63)	-1.072 (0.61)
Nonminority Female	0.046 (0.16)	0.018 (0.06)
Judgments		0.537 (0.85)
Firm delinquent		-0.041 (0.36)
Personally delinquent		0.644 (3.65)
Bankrupt past 3 years		1.184 (1.13)
Creditworthiness, Firm, and Owner Characteristics	No	Yes
Loan Characteristics	Yes	Yes
N	1,490	1,463
Adjusted R^2	.0831	.1046
F	11.4	11.05

Source: See Table 5.30.

Notes: (1) Reported estimates are OLS regression models, t-statistics are in parentheses. (2) Five indicators for primary owner's education level, four indicators for legal form of organization, loan amount applied for, loan amount granted, and month and year of loan application were included. (3) Seven additional indicators for jurisdiction were also included.

K. Conclusions and Results from More Recent Analyses

The results presented in this chapter indicate that African American-owned firms face serious obstacles in obtaining credit that are unrelated to their creditworthiness, industry, or geographic location. In a number of cases this is true as well for Hispanic-owned firms, Asian/Pacific Islander-owned firms, Native American-owned firms, and nonminority female-owned firms.

As in any regression-based study, our analysis hinges upon the proposition that all of the factors that are related to loan denial rates have been included in our statistical model. If, for example,

African American business owners possess some unobservable characteristic that makes them less creditworthy, then our statistical finding would overstate the difference in loan denial rates. To check on this possibility, the models we have estimated include an extensive array of factors that could conceivably affect loan decisions. Additionally, we have also estimated several alternative specifications that could potentially identify the impact of such a bias. Moreover, we have conducted our own surveys on numerous occasions and in numerous places across the U.S. Throughout, we have consistently found that African Americans are disadvantaged in the small business credit market and that our specification tests support the interpretation of discrimination.

Another potential criticism is that this study has examined loan denial rates rather than loan default rates; some have claimed that the latter provides a more appropriate strategy for identifying discrimination. For example, if banks only approve loans for relatively good African American firms then African American firms should exhibit relatively low default rates. Such an approach has several significant shortcomings that are detailed in Browne and Tootell (1995) and Ladd (1998). For instance, one problem is that it relies on the distribution of default probabilities being similar for African American and nonminority applicants meeting the acceptance standard used for nonminority firms. A further problem is that it assumes that the loan originators know with a high degree of precision what determines defaults; however, little hard information exists on what causes default. Additionally, it would be hard to disentangle the factors associated with differences in default rates between nonminority- and African American-owned firms given the fact that the African American-owned firms that obtain credit are typically charged higher interest rates, as we have demonstrated. Finally, such an analysis would require longitudinal data, tracking firms for several years following loan origination. Such data do not exist. While we have highlighted the potential limitations of such an analysis, we believe that it would be fruitful for this sort of longitudinal data collection to take place and for future research to investigate this question more fully.

In addition, many of the criticisms levied against the home mortgage loan discrimination study of Munnell, et al. (1996) could perhaps be used here as well. Yet these criticisms appear to have been effectively countered by, for example, Browne and Tootell (1995) and Tootell (1996). What is important to keep in mind in reference to this work compared with Munnell, et al. (1996), is the magnitude of the estimated racial disparity. The absolute size of the raw racial differences found in the mortgage study are considerably smaller than those observed in this study regarding business credit.[143]

The magnitude of the racial difference in small business loan approval rates is substantial, even after controlling for observed differences in creditworthiness, and considerably larger than that found in the analysis of discrimination in mortgage markets. Why do the results for small business loans differ so markedly from those obtained from mortgage loans? First, many mortgages are sold in the secondary market and a substantial fraction of mortgage lenders have little intention of keeping the loans they make. This added "distance" in the transaction might

[143] In the Boston Fed study, 10 percent of White mortgage applications were rejected compared with 28 percent for African Americans. Loan denial rates (weighted) for business credit in this study ranged from 8.3 to 26.2 percent for White males and between 50.0 and 65.9 percent for African American-owned firms (depending on which NSSBF or SSBF survey is used).

reduce the likelihood of discrimination. As Day and Liebowitz (1998, p. 6) point out, "economic self-interest, therefore, should reduce racial discrimination in this market more completely than in many others." A highly sophisticated secondary market for loans to small firms does not exist. Second, the presence of special programs and regulatory incentives to encourage banks and others to increase their mortgage lending to minorities gives these groups some advantages in obtaining a mortgage.

Clearly, a portion of the difference in denial rates between nonminority males and other groups in both types of studies appears to be due to differences in the characteristics of the applicants. Even after controlling for these differences, however, the gap in denial rates in the small business credit market is considerably larger than that found in the mortgage market.[144]

Our analysis finds significant evidence that African American-owned businesses face impediments to obtaining credit that go beyond observable differences in their creditworthiness. These firms are more likely to report that credit availability was a problem in the past and expect it to be a problem in the future. In fact, these concerns prevented more African American-owned firms from applying for loans because they feared being turned down due to prejudice or discrimination. We also found that loan denial rates are significantly higher for African American-owned firms than for nonminority male-owned firms even after taking into account differences in an extensive array of measures of creditworthiness and other characteristics. This result appears to be largely insensitive to geographic location or to changes in econometric specification. Comparable findings are observed for other minority business owners and for nonminority women as well, although not with as much consistency as the findings for African Americans.

Overall, the evidence is consistent that African American-owned firms and other M/WBE firms face large and statistically significant disadvantages in the market for small business credit. The larger size and significance of the effects found in our analyses (compared to mortgage market analyses) significantly reduces the possibility that the observed differences can be explained away by some quirk of the econometric estimation procedure and, instead, strongly suggests that the observed differences are due to discrimination.

As noted above, the Federal Reserve discontinued the SSBF as of 2003 and the most recent NERA survey on the topic was conducted in 2007. Economist Alicia Robb, in her article "Beyond the Late, Lamented Survey of Small Business Finance,"[145] notes:

> "A few years ago, the [SSBF], the main source of data on small business financing, was cancelled by the Federal Reserve Board. The SSBF had provided detailed information on the use of credit and other financial services by small businesses every five years beginning in 1987. There are no data available after 2003. The Federal Reserve stated the survey was cancelled for financial reasons and the survey had been conducted four times

[144] The gap in denial rates between African Americans and nonminorities with similar characteristics is between 34-46 percentage points in the small business credit market compared with 7 percentage points in the mortgage market.

[145] Robb, A. (2010).

> in varying economic conditions. Yet, less than a year after the cancellation, the worst financial crisis hit the United States since the Great Depression. Unfortunately, the nation now has no demand-side data to investigate the impact of this financial crisis on small business financing or firm performance. …. It is ironic that a survey that could shed light on the impact of a financial crisis on the state of small business financing was cancelled due to budgetary concerns when the government has spent hundreds of billions of dollars on other matters arising from the crisis. The survey cost about $6 million dollars over a five-year survey period, more of a rounding error to the Fed than a significant investment. What a pity that we have no data for 2008—a year of great interest for policy purposes."

Given this, what, if anything, can we say about evidence of M/WBE disparities in access to capital and credit since the 2003-2007 Period? Although adverse impact of the loss of the SSBF cannot be overstated, Dr. Robb herself has endeavored to partially fill the void using data from a unique data set known as the Kauffman Firm Survey (KFS), which follows a sample of small businesses from 2004 through 2010, as well as other sources.

Key findings from Dr. Robb's 2012 article entitled "Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms,"[146] include the following:

- Differences in asset levels are the largest single factor explaining racial disparities in business creation rates. Half of all Hispanic families in 2004 had less than $13,375 in wealth and half of all African American families in 2004 had less than $8,650 in wealth. These figures were 12 percent and 8 percent, respectively, of nonminority wealth levels.

- Research indicates that the level of startup capital is a strong predictor of business success.

- There is evidence that during times of financial distress, bank lending is curtailed, especially to firms that are inherently more risky, such as minority-owned and women-owned firms.

- During 2007-2010, young firms owned by African Americans, Hispanics, and other minorities (except Asians) were statistically significantly less likely than similarly situated nonminority firms to apply for credit when they needed it for fear of denial. Dr. Robb notes: "This is perhaps the clearest recent evidence of continued borrowing constraints for Black and Hispanic business owners in the United States. Women were also more likely than men to have this fear during the economic crisis."

- During 2007-2010, when they did apply for credit, African American, Hispanic, and other young minority firms were statistically significantly more likely to have their loans denied than nonminority owned firms with comparable levels of creditworthiness.

- Moreover, the magnitude of minority denials "increased dramatically" during the 2007-2010 period and through the financial crisis.

[146] Robb, A. (2012).

- Women-owned firms were also more likely to be denied than nonminority male firms with comparable creditworthiness levels in three of the four years studied, though the difference was only statistically significant in 2008.

Dr. Robb concludes:[147]

> "The multivariate findings indicate that … minority owners who did not apply for new loans were significantly more likely than their White counterparts to avoid applying for loans when needed because they were afraid that their loan applications would be declined by lenders. This is even after controlling for credit quality and a host of owner and firm characteristics. Women were also more likely than similar men not to apply for credit when it was needed for fear of having their loan application denied during the years of the economic crisis. The analysis showed that women and minority business owners' fears of being declined for a loan were not necessarily unwarranted. In particular, in terms of loan application outcomes, even after controlling for such factors as industry, credit score, legal form, and human capital, minority owners of young firms were significantly less likely to have their loan applications approved than were similar White business owners. Similarly, in 2008, women owners of new businesses were significantly less likely than men with similar credit profiles and legal forms of organization to be approved for loans. More generally, the results suggest that in the initial year of startup, Black- and Hispanic-owned businesses faced greater credit constraints than did their White and Asian counterparts. Similarly, women-owned businesses faced greater credit constraints than did similar startups owned by men during the years of the financial crisis."

Dr. Robb's findings are consistent with those reported above from the SSBF and from NERA's own surveys. There is no evidence to suggest that credit discrimination has lessened in the years since 2007. Indeed the available evidence suggests that credit discrimination has continued and, if anything, worsened during the recent financial crisis.

[147] *Ibid*.

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VI. M/WBE Utilization and Disparity in City of San Antonio Contracting Activity

A. Introduction

The *Croson* decision and its progeny have held that statistical evidence of race-based or gender-based disparities in business enterprise activity is a requirement for any state or local entity that desires to establish or maintain race-conscious or gender-conscious requirements for M/WBE participation in contracting and procurement. Chapters IV and V documented several specific disparities facing minority- and women-owned firms in the private sector of the City of San Antonio's market area, where contracting and procurement activity is generally *not* subject to such requirements. In this chapter, we combined the evidence from Chapter III, which estimates M/WBE availability in the City of San Antonio Market Area, with the Master Contract/Subcontract Database described in Chapter II, in order to examine whether there is statistical evidence of disparities in San Antonio's own contracting activity.

The statistical evidence reported in Chapter II has already established from which specific industries the City of San Antonio procures goods and services from as well as from which geographic areas it draws the majority of its prime contractors and subcontractors. In addition, the statistical evidence reported in Chapter III has established what percentage of all firms in the City's geographic and product markets are M/WBEs.

To determine whether M/WBEs have been underutilized at the City of San Antonio, we should ideally examine public expenditures that were *not* subject to subcontracting goals. The City has a long and well established policy of setting subcontracting goals on many of its contracting activities, especially in the areas of Construction and A&E. Given this, the data on City of San Antonio contracts with subcontracting goals may not show evidence of underutilization, even if such underutilization exists in the private sector of the City's relevant market area. Instead, the data on such contracts is most informative for examining the effectiveness of the City's SBEDA efforts during the study time period.

If City of San Antonio M/WBE utilization is still significantly less than M/WBE availability, particularly on such contracts on which no subcontracting goals were established, then that data would be consistent with the persistence of discrimination, in conjunction with the private sector data examined in Chapters IV and V.

This chapter, therefore, will document:

- To what extent have M/WBEs been utilized in the contracting and subcontracting activities of the City of San Antonio during the study period.
- To what extent there is a disparity between M/WBEs utilization and M/WBE availability in the relevant market area.
- Whether M/WBE utilization and disparity ratios differ between contracts where M/WBE goals were established and contracts where such goals were not established.

The M/WBE utilization results below are reported using two different, but related, measures—dollars awarded and dollars paid. We report this information for Construction, A&E, Professional Services, Other Services, Goods & Supplies, and for all five categories combined. Results for M/WBEs are reported by race and gender as well as for minorities as a group and for all minorities and women combined.

B. M/WBE Utilization for All Contracting Dollars

For this Study, we examined 2,265 prime contracts or purchase orders and 3,831 associated subcontracts active primarily during 2011-2013.[148] These contracts and purchases had a total award value of $2.61 billion and a total paid value of $1.47 billion.[149] NAICS codes, M/WBE status, and detailed race and gender status for the prime contractors and subcontractors included in the Master Contract/Subcontract Database were established through extensive computer-assisted cross-referencing of firms in our database with firms in the (a) South Central Texas Regional Certification Agency directory, (b) the State of Texas certified HUB directory, (c) the Texas UCP DBE directory, (d) the master directory of M/WBEs assembled for this study, (e) Dun & Bradstreet, (f) company profiles drawn from Hoover's, American Business Information, Standard & Poor's, and other sources, and (g) the results of our race/gender misclassification/non-classification surveys.

1. Utilization Across All Contracts

From Tables 6.1 and 6.2 we see that, as a group during the study period, M/WBEs were awarded 21.34 percent and paid 33.80 percent of all contract and subcontract dollars in Construction; awarded 36.25 percent and paid 31.89 percent of all contract and subcontract dollars in A&E; awarded 8.57 percent and paid 7.25 percent of all contract and subcontract dollars in Professional Services; awarded 21.89 percent and paid 23.37 percent of all contract and subcontract dollars in Other Services; and awarded 16.14 percent and paid 15.53 percent of all contract and subcontract dollars in Goods & Supplies. Altogether, M/WBEs were awarded 19.92 percent and paid 23.30 percent of all contract and subcontract dollars during the study period. Among M/WBEs, firms owned by Hispanics were awarded the largest fraction of contracting and subcontracting dollars (both awarded and paid), followed in descending order by firms owned by nonminority females, Asians/Pacific Islanders, African Americans, and Native Americans.

Non-M/WBEs were awarded and paid the vast majority of contract and subcontract dollars in all categories. Non-M/WBEs received approximately 79 percent of Construction awards, 64 percent of A&E awards, 91 percent of Professional Services awards, 78 percent of Other Services awards, 84 percent of Goods & Supplies awards, and 80 percent of awards overall. Measured by payments, non-M/WBEs received approximately 66 percent of construction payments, 68 percent of A&E payments, 93 percent of Professional Services payments, 77 percent of Other Services payments, 84 percent of Goods & Supplies payments, and 77 percent of payments overall.

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[148] 2007 Bond-financed design contracts were included as well, which spanned a time period from 2008-2011.

[149] Payments on contracts that were not substantially complete at the time of the Study data collection were excluded from the paid dollar totals.

Table 6.1. M/WBE Utilization at the City of San Antonio–All Contracts (Dollars Awarded)

M/WBE Type	Procurement Category					
	Construction (%)	A&E (%)	Professional Services (%)	Other Services (%)	Goods & Supplies (%)	Overall (%)
African American	0.25	1.64	1.15	1.04	1.76	0.92
Hispanic	15.27	18.99	3.86	14.35	2.04	10.94
Asian/Pacific Islander	0.43	4.81	0.41	0.84	10.84	3.28
Native American	0.17	0.20	0.02	0.00	0.00	0.10
Minority Total	16.12	25.64	5.44	16.23	14.63	15.24
Nonminority female	5.21	10.60	3.13	5.66	1.50	4.68
M/WBE Total	21.34	36.25	8.57	21.89	16.14	19.92
Non-M/WBE Total	78.66	63.75	91.43	78.11	83.86	80.08
Total (%)	100.00	100.00	100.00	100.00	100.00	100.00
Total ($)	1,192,361,693	285,319,588	389,284,709	152,769,175	588,090,775	2,607,825,941
Prime Contracts	255	317	515	265	913	2,265
Subcontracts	2,283	1,162	260	113	13	3,831

Source: NERA Master Contract/Subcontract Database. Note: Figures are rounded. Rounding was performed subsequent to any mathematical calculations.

Table 6.2. M/WBE Utilization at the City of San Antonio—All Contracts (Dollars Paid)

M/WBE Type	Procurement Category					
	Construction (%)	A&E (%)	Professional Services (%)	Other Services (%)	Goods & Supplies (%)	Overall (%)
African American	0.25	1.49	0.35	0.10	1.68	0.79
Hispanic	24.07	14.59	3.98	15.55	2.54	13.05
Asian/Pacific Islander	0.68	3.97	0.45	0.27	10.32	3.54
Native American	0.34	0.10	0.00	0.00	0.00	0.14
Minority Total	25.33	20.16	4.79	15.92	14.54	17.52
Nonminority female	8.47	11.73	2.46	7.45	0.99	5.79
M/WBE Total	33.80	31.89	7.25	23.37	15.53	23.30
Non-M/WBE Total	66.20	68.11	92.75	76.63	84.47	76.70
Total (%)	100.00	100.00	100.00	100.00	100.00	100.00
Total ($)	545,440,998	194,720,473	277,229,530	75,799,426	379,773,626	1,472,964,053
Prime Contracts	201	216	383	167	913	1,880
Subcontracts	2,118	779	215	84	13	3,209

Source and Notes: See Table 6.1.

In addition to its M/WBE goals, the City of San Antonio also implements a race- and gender-neutral program to assist certified Small Business Enterprises ("SBE") and Emerging Small Business Enterprises ("ESBE") to participate in City contracting and purchasing opportunities. A firm can become certified as an SBE if its average annual revenues over the past three years do not exceed the Small Business Administration's size standards, which differ according to industry. To become certified as an Emerging Small Business Enterprise, the firm's revenues must not exceed 25 percent of the relevant SBA size standard. Further, the ESBE certification may not be held for more than five years.[150]

From Table 6.3 we see that, during the study period, certified SBEs were awarded 21.12 percent and paid 31.78 percent of all contract and subcontract dollars in Construction; awarded 36.17 percent and paid 30.67 percent of all contract and subcontract dollars in A&E; awarded 4.05 percent and paid 3.45 percent of all contract and subcontract dollars in Professional Services; awarded 14.41 percent and paid 15.46 percent of all contract and subcontract dollars in Other Services; and awarded 5.82 percent and paid 6.76 percent of all contract and subcontract dollars in Goods & Supplies. Altogether, SBEs were awarded 16.38 percent and paid 19.01 percent of all contract and subcontract dollars during the study period.

Certified ESBEs were awarded 8.17 percent and paid 13.29 percent of all contract and subcontract dollars in Construction; awarded 8.59 percent and paid 7.11 percent of all contract and subcontract dollars in A&E; awarded 1.92 percent and paid 1.82 percent of all contract and subcontract dollars in Professional Services; awarded 5.08 percent and paid 4.20 percent of all contract and subcontract dollars in Other Services; and awarded 0.42 percent and paid 0.50 percent of all contract and subcontract dollars in Goods & Supplies. Altogether, ESBEs were awarded 5.36 percent and paid 6.55 percent of all contract and subcontract dollars during the study period.

Table 6.3. M/WBE Utilization at the City of San Antonio–All Contracts (Dollars Awarded)

SBE or ESBE	Procurement Category					
	Construction (%)	A&E (%)	Professional Services (%)	Other Services (%)	Goods & Supplies (%)	Overall (%)
SBE (Award)	21.12	36.17	4.05	14.41	5.82	16.38
SBE (Paid)	31.78	30.67	3.45	15.46	6.76	19.01
ESBE (Award)	8.17	8.59	1.92	5.08	0.42	5.36
ESBE (Paid)	13.29	7.11	1.82	4.20	0.50	6.55

Source and Notes: See Table 6.1.

[150] *See* http://www.sctrca.org/certifications.asp.

2. Contracts With Goals versus Contracts Without Goals

We conducted a series of t-tests on the percentage of dollars awarded and paid on contracts for which SBEDA established M/WBE goals versus those on which no such goals were set.[151]

Of 255 contracts analyzed in Construction, 121 (47.5%) had M/WBE goals, and those contracts accounted for 74.5 percent of all Construction dollars awarded.

Of 317 contracts analyzed in A&E, 248 (78.2%) had M/WBE goals, and those contracts accounted for 53.3 percent of all A&E dollars awarded.

Of 515 contracts analyzed in Professional Services, 31 (6.0%) had M/WBE goals, and those contracts accounted for 12.7 percent of all Professional Services dollars awarded.

Of 265 contracts analyzed in Other Services, 33 (12.5%) had M/WBE goals, and those contracts accounted for 24.7 percent of all Other Services dollars awarded.

Of 913 contracts analyzed in Goods & Supplies, 8 (0.9%) had M/WBE goals, and those contracts accounted for 2.4 percent of all Professional Services dollars awarded.

Table 6.4 shows that, when all procurement categories are combined, M/WBE utilization is greater on contracts for which M/WBE goals were established. This is true for African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, nonminority females, minorities as a group, and M/WBEs as a group. These differences are statistically significant as well, meaning that it is unlikely the differences can be attributed to chance variation alone. With only a few exceptions, this phenomenon was observed in each procurement category as well.

[151] Although the goals were not administered under the SBEDA Program, we also considered the Job Order contracts, and the 2007 and 2012 bond-financed design contracts to have had M/WBE goals established.

Table 6.4. M/WBE Utilization at the City of San Antonio—Contracts with M/WBE Goals versus Contracts without M/WBE Goals

		AFRIC. AMER.		HISPANIC		ASIAN/PAC.		NATIVE AMER.	
		GOAL	NO GOAL	GOAL	NO GOAL	GOAL	NO GOAL	GOAL	NO GOAL
CONSTRUCTION	AWARD	0.2%	0.3%	30.7%	29.5%	1.1%	0.1%	1.00%	0.00%
	PAID	*0.2%*	*0.02%*	34.7%	34.1%	1.3%	0.1%	1.20%	0.01%
ARCHITECTURE & ENGINEERING	AWARD	1.8%	1.2%	**29.6%**	**15.1%**	5.4%	4.9%	*0.76%*	*0.10%*
	PAID	1.8%	0.9%	**27.7%**	**7.4%**	5.7%	4.0%	0.57%	0.00%
PROF. SERVICES	AWARD	2.1%	0.6%	7.1%	2.7%	3.3%	0.1%	0.03%	0.00%
	PAID	4.5%	1.0%	6.9%	1.9%	0.12%	0.07%	0.00%	0.00%
OTHER SERVICES	AWARD	0.6%	1.0%	40.5%	8.6%	0.08%	0.04%	0.00%	0.00%
	PAID	1.0%	0.2%	26.7%	7.2%	0.3%	0.0%	0.00%	0.00%
GOODS & SUPPLIES	AWARD	0.0%	0.7%	12.5%	4.0%	0.0%	1.1%	0.00%	0.00%
	PAID	0.0%	0.8%	12.5%	3.6%	0.0%	1.1%	0.00%	0.00%
OVERALL	AWARD	**1.3%**	**0.7%**	**28.8%**	**6.5%**	**3.6%**	**0.8%**	**0.71%**	**0.00%**
	PAID	**1.3%**	**0.5%**	**28.5%**	**5.7%**	**3.7%**	**0.7%**	**0.69%**	**0.00%**

		MINORITY		NONM. FEMALE		M/WBE	
		GOAL	NO GOAL	GOAL	NO GOAL	GOAL	NO GOAL
CONSTRUCTION	AWARD	33.0%	30.0%	**11.2%**	**4.2%**	**44.2%**	**34.2%**
	PAID	37.3%	34.3%	**12.0%**	**5.3%**	*49.3%*	*39.6%*
ARCHITECTURE & ENGINEERING	AWARD	**37.6%**	**21.2%**	**13.8%**	**7.9%**	**51.4%**	**29.1%**
	PAID	**35.7%**	**12.3%**	**15.4%**	**6.9%**	**51.1%**	**19.2%**
PROF. SERVICES	AWARD	*12.5%*	*3.4%*	*9.0%*	*2.2%*	**21.5%**	**5.5%**
	PAID	11.5%	2.1%	*10.1%*	*1.2%*	**21.6%**	**3.3%**
OTHER SERVICES	AWARD	**41.2%**	**9.7%**	7.6%	7.7%	**48.8%**	**17.4%**
	PAID	*28.1%*	*7.3%*	19.9%	8.6%	**48.0%**	**15.8%**
GOODS & SUPPLIES	AWARD	12.5%	5.8%	12.5%	2.5%	25.0%	8.2%
	PAID	12.5%	5.5%	12.5%	2.6%	25.0%	8.0%
OVERALL	AWARD	**34.3%**	**8.0%**	**12.2%**	**3.4%**	**46.7%**	**11.4%**
	PAID	**34.2%**	**6.9%**	**14.1%**	**3.1%**	**48.3%**	**10.0%**

Note: Figures in **boldface** type are statistically significant within a 95% or better confidence interval. Figures in ***boldface italicized*** type are significant within a 90% confidence interval.

C. M/WBE Disparity Analysis for All Contracting Dollars

1. Results by Major Procurement Category

In this section, we compare our estimates of M/WBE utilization in the City of San Antonio's contracting and subcontracting activities to our estimates of M/WBE availability in the relevant geographic and product market area. Tables 6.5 and 6.6 present the results of this comparison for all prime contracts and purchase orders examined during the study period, using dollars awarded and dollars paid, respectively, as the metric of utilization.

In each of these tables, the figures in the utilization column include both prime contract and subcontract dollars and were derived as described above in this chapter. The figures in the availability column were derived as described in Chapter III. The disparity ratio, which appears in the final column of each table, is derived by dividing utilization by availability and then multiplying the result by 100. A disparity ratio below 100 indicates that M/WBEs did not participate in City of San Antonio contracting and subcontracting at a level that is consistent with their estimated availability in the relevant market area. A disparity ratio is said to be substantively significant, or large, if its value is approximately 80 or less. A disparity ratio is said to be statistically significant if it is unlikely to be caused by chance alone. In the tables below, statistical significance is indicated by one or more asterisks to the right of the disparity ratio.

When all procurement categories are combined, Tables 6.5 and 6.6 show that adverse disparities are observed for firms owned by African Americans, Hispanics, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group. These disparities are all large and are all statistically significant.

In Construction, adverse disparities are observed for firms owned by African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group. With only one exception, these disparities are all large and statistically significant.[152]

In Architecture & Engineering, adverse disparities are observed for firms owned by Hispanics (paid dollars only), Native Americans, and minorities as a group (paid dollars only). For Native Americans, the disparity is large and statistically significant.

In Professional Services, adverse and large disparities are observed for firms owned by African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group. These disparities are statistically significant for African Americans, Hispanics, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group.

In Other Services, adverse disparities are observed for firms owned by African Americans, Hispanics, Asians/Pacific Islanders, Native Americans, minorities as a group, nonminority

[152] When measured according to paid dollars (as opposed to award dollars), the disparity for Asians/Pacific Islanders is adverse but not large or statistically significant.

females, and M/WBEs as a group. These disparities are large and statistically significant for each of these groups as well.

In Goods & Supplies, adverse disparities are observed for firms owned by African Americans, Hispanics, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group. These disparities are large for African Americans (paid dollars only), Hispanics, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group. The disparities are statistically significant for Hispanics, Native Americans, minorities as a group, nonminority females, and M/WBEs as a group.

Table 6.5. Utilization, Availability, and Disparity Results for City of San Antonio Contracting, Overall and by Contracting Category–All Contracts (Dollars Awarded)

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio	
OVERALL				
African American	0.92	2.77	33.2	****
Hispanic	10.94	25.22	43.4	****
Asian/Pacific Islander	3.28	2.01		
Native American	0.10	1.14	9.1	****
Minority-owned	15.24	31.15	48.9	****
Nonminority female	4.68	10.03	46.7	****
M/WBE total	19.92	41.17	48.4	****
CONSTRUCTION				
African American	0.25	1.91	12.9	****
Hispanic	15.27	29.76	51.3	****
Asian/Pacific Islander	0.43	1.74	24.7	****
Native American	0.17	0.97	17.6	****
Minority-owned	16.12	34.38	46.9	****
Nonminority female	5.21	10.06	51.8	****
M/WBE total	21.34	44.44	48.0	****
ARCHITECTURE & ENGINEERING				
African American	1.64	1.17		
Hispanic	18.99	15.81		
Asian/Pacific Islander	4.81	3.05		
Native American	0.20	2.54	8.0	****
Minority-owned	25.64	22.57		
Nonminority female	10.60	7.98		
M/WBE total	36.25	30.55		
PROFESSIONAL SERVICES				
African American	1.15	6.34	18.1	****
Hispanic	3.86	22.48	17.2	****
Asian/Pacific Islander	0.41	0.72	57.4	
Native American	0.02	0.19	10.7	***
Minority-owned	5.44	29.74	18.3	****
Nonminority female	3.13	9.97	31.4	****
M/WBE total	8.57	39.70	21.6	****

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio
OTHER SERVICES			
African American	1.04	4.00	26.1 ****
Hispanic	14.35	32.30	44.4 ****
Asian/Pacific Islander	0.84	2.11	39.5 ****
Native American	0.00	1.12	0.0 ****
Minority-owned	16.23	39.54	41.0 ****
Nonminority female	5.66	15.26	37.1 ****
M/WBE total	21.89	54.80	39.9 ****
GOODS & SUPPLIES			
African American	1.76	2.01	87.3
Hispanic	2.04	23.31	8.7 ****
Asian/Pacific Islander	10.84	4.01	
Native American	0.00	1.35	0.0 ****
Minority-owned	14.63	30.69	47.7 ****
Nonminority female	1.50	11.42	13.1 ****
M/WBE total	16.14	42.10	38.3 ****

Source: Calculations from NERA Master Contract/Subcontract Database and NERA Baseline Business Universe.

Notes: (1) "*" indicates an adverse disparity that is statistically significant at the 15% level or better (85% confidence). "**" indicates the disparity is significant at a 10% level or better (90% confidence). "***" indicates significance at a 5% level or better (95% confidence). "****" indicates significance at a 1% level or better (99% confidence). (2) An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

Table 6.6. Utilization, Availability, and Disparity Results for City of San Antonio Contracting, Overall and by Contracting Category–All Contracts (Dollars Paid)

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio
OVERALL			
African American	0.79	2.78	28.5 ****
Hispanic	13.05	26.67	48.9 ****
Asian/Pacific Islander	3.54	1.61	
Native American	0.14	1.10	12.8 ****
Minority-owned	17.52	32.15	54.5 ****
Nonminority female	5.79	10.47	55.3 ****
M/WBE total	23.30	42.62	54.7 ****
CONSTRUCTION			
African American	0.25	1.91	12.9 ****
Hispanic	24.07	35.60	67.6 ****
Asian/Pacific Islander	0.68	0.72	94.0
Native American	0.34	0.94	36.4 ***
Minority-owned	25.33	39.17	64.7 ****
Nonminority female	8.47	11.36	74.6 **
M/WBE total	33.80	50.52	66.9 ****
ARCHITECTURE & ENGINEERING			
African American	1.49	1.19	
Hispanic	14.59	15.52	94.0
Asian/Pacific Islander	3.97	2.46	
Native American	0.10	2.13	4.9 ****
Minority-owned	20.16	21.30	94.7
Nonminority female	11.73	7.47	
M/WBE total	31.89	28.77	
PROFESSIONAL SERVICES			
African American	0.35	5.63	6.3 ****
Hispanic	3.98	27.04	14.7 ****
Asian/Pacific Islander	0.45	0.60	75.4
Native American	0.00	0.19	0.0 ****
Minority-owned	4.79	33.47	14.3 ****
Nonminority female	2.46	11.15	22.1 ****
M/WBE total	7.25	44.62	16.3 ****
OTHER SERVICES			
African American	0.10	4.45	2.2 ****
Hispanic	15.55	30.10	51.7 ****
Asian/Pacific Islander	0.27	2.16	12.6 ****
Native American	0.00	0.92	0.0 ****
Minority-owned	15.92	37.62	42.3 ****
Nonminority female	7.45	15.88	46.9 ****
M/WBE total	23.37	53.51	43.7 ****

Contracting Category & M/WBE Type	Utilization	Availability	Disparity Ratio
GOODS & SUPPLIES			
African American	1.68	2.14	78.6
Hispanic	2.54	22.71	11.2 ****
Asian/Pacific Islander	10.32	4.01	
Native American	0.00	1.32	0.0 ****
Minority-owned	14.54	30.18	48.2 ****
Nonminority female	0.99	10.75	9.2 ****
M/WBE total	15.53	40.93	37.9 ****

Source and Notes: See Table 6.5.

2. Detailed Industry Level Results

Utilization, availability and disparity results comparable to those presented above in Tables 6.5 and 6.6 have also been produced according to detailed Industry Groups. In the interest of space, these tables are presented in Appendix D.

D. Current Availability versus Expected Availability

Finally, Table 6.7 provides a comparison between current levels of M/WBE availability for the City of San Antonio and levels that we would expect to observe in a race- and gender-neutral market area. The latter, referred to as "expected availability," is derived by dividing the current availability figures, as documented in Table 3.13, by the disparity ratios documented in column (3) of Table 4.12. If no disparity is present in the relevant market area, the disparity ratio will be equal to 100 and expected availability will be equivalent to current availability. In cases where adverse disparities are present in the relevant market area, the disparity ratio will be less than 100 and, consequently, expected availability will exceed current availability.

In 76 out of 84 instances, expected M/WBE availability in the City of San Antonio's market area exceeds current M/WBE availability by substantial margins.[153]

[153] The only exceptions were for Asians/Pacific Islanders Americans in Professional Services, Other Services, Goods & Supplies, and Overall.

Table 6.7. Current Availability and Expected Availability for City of San Antonio Contracting

Contracting Category & M/WBE Type	Award Dollar Weights		Paid Dollar Weights	
	Current Availability (%)	Expected Availability (%)	Current Availability (%)	Expected Availability (%)
OVERALL				
African American	2.77	5.12	2.78	5.14
Hispanic	25.22	31.47	26.67	33.28
Asian/Pacific Islander	2.01	1.80	1.61	1.45
Native American	1.14	1.71	1.10	1.65
Minority	31.15	40.50	32.15	41.80
Nonminority female	10.03	11.95	10.47	12.47
M/WBE total	41.17	54.73	42.62	56.66
CONSTRUCTION				
African American	1.91	3.70	1.91	3.70
Hispanic	29.76	32.19	35.60	38.50
Asian/Pacific Islander	1.74	3.51	0.72	1.45
Native American	0.97	1.29	0.94	1.25
Minority	34.38	38.80	39.17	44.20
Nonminority female	10.06	27.28	11.36	30.80
M/WBE total	44.44	52.84	50.52	60.06
ARCHITECTURE & ENGINEERING				
African American	1.17	2.26	1.19	2.30
Hispanic	15.81	17.10	15.52	16.79
Asian/Pacific Islander	3.05	6.16	2.46	4.96
Native American	2.54	3.38	2.13	2.83
Minority	22.57	25.47	21.30	24.04
Nonminority female	7.98	21.64	7.47	20.25
M/WBE total	30.55	36.32	28.77	34.21
PROFESSIONAL SERVICES				
African American	6.34	12.87	5.63	11.42
Hispanic	22.48	32.38	27.04	38.95
Asian/Pacific Islander	0.72	0.48	0.60	0.40
Native American	0.19	0.28	0.19	0.28
Minority	29.74	41.96	33.47	47.22
Nonminority female	9.97	11.96	11.15	13.38
M/WBE total	39.70	55.38	44.62	62.24
OTHER SERVICES				
African American	4.00	8.12	4.45	9.03
Hispanic	32.30	46.53	30.10	43.36
Asian/Pacific Islander	2.11	1.40	2.16	1.43
Native American	1.12	1.62	0.92	1.33
Minority	39.54	55.78	37.62	53.08
Nonminority female	15.26	18.31	15.88	19.05
M/WBE total	54.80	76.44	53.51	74.64

Contracting Category & M/WBE Type	Award Dollar Weights		Paid Dollar Weights	
	Current Availability (%)	Expected Availability (%)	Current Availability (%)	Expected Availability (%)
GOODS & SUPPLIES				
African American	2.01	4.08	2.14	4.34
Hispanic	23.31	33.58	22.71	32.71
Asian/Pacific Islander	4.01	2.65	4.01	2.65
Native American	1.35	1.96	1.32	1.91
Minority	30.69	43.30	30.18	42.58
Nonminority female	11.42	13.70	10.75	12.90
M/WBE total	42.10	58.73	40.93	57.09

Source: See Tables 3.13 and 4.12.

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VII. Anecdotal Evidence of Disparities in the City of San Antonio Market Area

A. Introduction

We have presented a variety of economic and statistical findings above that are consistent with, and indicative of, the presence of business discrimination against minorities and women in the geographic and product markets that are relevant to the City of San Antonio's Construction, Architecture & Engineering, Professional Services, Other Services and Goods & Supplies contracting activities. Chapters IV and V, in particular, have documented large and statistically significant disparities in the City of San Antonio's relevant markets adversely impacting the competitiveness and utilization of minority and female entrepreneurs. In most cases, commercial loan denial rates were higher, the cost of credit was higher, business formation rates are lower, and business owner earnings are lower—even when comparisons are restricted to similarly situated businesses and business owners.

As a complement to these quantitative findings, we gathered anecdotal evidence regarding disparities, perceived barriers, and differences in treatment of business owners on the basis of race and/or gender in the City of San Antonio's market area. First, we conducted a large scale survey of business establishments in the market area—both M/WBE and non-M/WBE—and asked owners directly about their experiences, if any, with contemporary business-related acts of discrimination. We find that M/WBEs in the City's markets report suffering business-related discrimination in substantial numbers and often with statistically significantly greater frequency than non-M/WBEs (see Tables 7.3 and 7.4). These differences tend to remain substantial when firm size and owner characteristics are held constant (see Tables 7.5 and 7.6). Additionally, we find that M/WBE firms that have been hired in the past by non-M/WBE prime contractors to work on public sector contracts with M/WBE goals often are not hired—or even solicited—by these prime contractors to work on projects without M/WBE goals (see Tables 7.9 and 7.10). The relative lack of M/WBE hiring and, even more significantly, the relative lack of solicitation of M/WBEs in the absence of affirmative efforts by the City of San Antonio and other public entities in the relevant market area, shows that business discrimination continues to fetter M/WBE business opportunities. We conclude that the statistical evidence presented in this Study is consistent with these anecdotal accounts of contemporary business discrimination.

The remainder of this chapter is organized as follows. We first discuss the mail survey results in Section B. In Section B.1, we discuss the survey questionnaire, sample frame, and response rate. Section B.2 presents evidence on willingness of firms to do business with the public sector. Section B.3 presents the key findings from the M/WBE and non-M/WBE respondents concerning disparate treatment. Section B.4 presents the key findings concerning the impact of the current business environment on M/WBEs' ability to conduct their businesses. Section B.5 presents key findings to our questions concerning whether prime contractors solicit or hire M/WBEs for work on public or private contracts without M/WBE goals. Section B.6 then examines whether M/WBEs and non-M/WBEs that responded to the mail surveys are representative of all M/WBEs and non-M/WBEs in the relevant markets. To do so, we surveyed a random sample of M/WBEs and non-M/WBEs that did not respond to our mail survey, and then compared their responses to key questions with those of our survey respondents.

Finally, Section C describes the results of the business experience group interviews. Responses are grouped under the headings of the most common cited barriers and issues facing businesses in the City of San Antonio's contracting market area.

B. Business Experience Surveys

1. Survey Questionnaire, Sample, and Responses

The survey questionnaire asked whether and with what frequency firms had experienced discrimination in a wide variety of likely business dealings in the previous five years. The survey also inquired about the influence of specific aspects of the everyday business environment, such as bonding and insurance requirements, on each firm's ability to do business in the City of San Antonio's relevant markets. We also asked about the relative frequency with which firms that have been used as subcontractors, subconsultants, or suppliers by prime contractors on contracts *with* M/WBE goals have been hired to work, or even solicited to bid, on similar contracts *without* M/WBE goals. Finally, we posed questions about the characteristics of the firm, including firm age, owner's education, employment size and revenue size, to facilitate comparisons of similarly situated firms.

The mail survey sample was stratified by industry and drawn directly from the Master M/WBE Directory and the Baseline Business Universe compiled for this Study using the custom census methodology outlined in this chapter.[154] Firms were sampled randomly within strata. M/WBE firms were oversampled to facilitate statistical comparisons with non-M/WBEs. Of 9,199 businesses that received the questionnaire,[155] 1,047 (11.4%) provided usable responses.[156] The distribution of total responses according to the race and gender of the business owner, by major contracting category, appears in Table 7.1.

[154] *See* Chapter II for a discussion of how the product and geographic markets were defined. See Chapter III for a discussion of how the Master M/WBE Directory and the Baseline Business Universe were assembled.

[155] These figures exclude surveys that were returned undelivered or were otherwise undeliverable.

[156] The total number of valid responses to any particular survey question, however, was sometimes lower than this due to item non-response.

Table 7.1. Race, Gender and Contracting Category of Mail Survey Respondents

Group	Construction	Architecture & Engineering	Professional & Other Services	Goods & Supplies	Total
African American	7	4	36	6	53
Hispanic	121	41	210	45	417
Asian/Pacific Islander	5	3	25	7	40
Native American	4	1	11	1	17
Minorities with unknown Race/Ethnicity	0	0	0	0	0
Nonminority Women	52	23	183	45	303
M/WBE Total	189	72	465	104	830
Nonminority Men	60	33	98	26	217
Total	249	105	563	130	1,047

Source: NERA mail survey.

2. Willingness of Firms to Contract with the Public Sector

The probative value of anecdotal evidence of discrimination increases when it comes from active businesses in the relevant geographic and procurement markets. The value of such evidence increases further when it comes from firms that have actually worked or attempted to work for the public sector within those markets. Such is the present case.

As shown below in Table 7.2, there is an observable link between the firms responding to our mail survey and the public sector of the San Antonio area economy. All respondents operate establishments in the relevant geographic and product markets. Moreover, significant numbers of survey respondents have worked or attempted to do work for the City of San Antonio or other public entities in the market area in the last five years. This is observed for virtually all types of M/WBEs and non-M/WBEs in all procurement categories, and the importance of the public sector is even more significant for M/WBEs than it is for non-MWBEs. Overall, 44 percent of non-M/WBEs and 54 percent of M/WBEs have worked or attempted to work for the City of San Antonio or some other public entity in the market area in the previous five years. For M/WBEs in Construction and A&E, the figures are significantly higher than this, at 62 percent and 75 percent, respectively.

Table 7.2. Survey Respondents Indicating They Had Worked or Attempted to Work for Public Sector Agencies in the Last Five Years

Worked or Attempted to Work, Last 5 Years	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority Total	Non-minority Female	M/WBE Total	Non-minority Male
ALL INDUSTRIES								
With City of San Antonio	38.5%	39.7%	27.5%	56.3%	39.2%	37.7%	38.6%	34.3%
	(52)	(413)	(40)	(16)	(521)	(302)	(823)	(216)
With Other Public Entity in Market Area	45.1%	50.5%	42.5%	58.8%	49.6%	49.7%	49.6%	39.4%
	(51)	(414)	(40)	(17)	(522)	(302)	(824)	(216)
With any Public Entity in Market Area	54.9%	54.3%	47.5%	68.8%	54.3%	54.2%	54.3%	44.4%
	(51)	(414)	(40)	(16)	(521)	(301)	(822)	(216)
CONSTRUCTION								
With City of San Antonio	100.0%	45.0%	60.0%	75.0%	49.3%	52.9%	50.3%	49.2%
	(7)	(120)	(5)	(4)	(136)	(51)	(187)	(59)
With Other Public Entity in Market Area	100.0%	53.7%	60.0%	50.0%	56.2%	61.5%	57.7%	50.8%
	(7)	(121)	(5)	(4)	(137)	(52)	(189)	(59)
With any Public Entity in Market Area	100.0%	57.9%	60.0%	75.0%	60.6%	66.7%	62.2%	59.3%
	(7)	(121)	(5)	(4)	(137)	(51)	(188)	(59)
ARCHITECTURE & ENGINEERING								
With City of San Antonio	25.0%	70.7%	33.3%	100.0%	65.3%	60.9%	63.9%	60.6%
	(4)	(41)	(3)	(1)	(49)	(23)	(72)	(33)
With Other Public Entity in Market Area	25.0%	78.0%	0.0%	100.0%	69.4%	73.9%	70.8%	54.5%
	(4)	(41)	(3)	(1)	(49)	(23)	(72)	(33)
With any Public Entity in Market Area	25.0%	82.9%	33.3%	100.0%	75.5%	73.9%	75.0%	60.6%
	(4)	(41)	(3)	(1)	(49)	(23)	(72)	(33)
PROFESSIONAL & OTHER SERVICES								
With City of San Antonio	25.7%	29.5%	24.0%	45.5%	29.1%	29.0%	29.1%	18.4%
	(35)	(207)	(25)	(11)	(278)	(183)	(461)	(98)
With Other Public Entity in Market Area	35.3%	43.0%	48.0%	63.6%	43.3%	42.6%	43.0%	31.6%
	(34)	(207)	(25)	(11)	(277)	(183)	(460)	(98)
With any Public Entity in Market Area	47.1%	46.9%	52.0%	63.6%	48.0%	47.5%	47.8%	33.7%
	(34)	(207)	(25)	(11)	(277)	(183)	(460)	(98)
GOODS & SUPPLIES								
With City of San Antonio	50.0%	44.4%	14.3%	-	41.4%	44.4%	42.7%	26.9%
	(6)	(45)	(7)	(0)	(58)	(45)	(103)	(26)
With Other Public Entity in Market Area	50.0%	51.1%	28.6%	0.0%	47.5%	52.3%	49.5%	23.1%
	(6)	(45)	(7)	(1)	(59)	(44)	(103)	(26)
With any Public Entity in Market Area	66.7%	53.3%	28.6%	-	51.7%	56.8%	53.9%	30.8%
	(6)	(45)	(7)	(0)	(58)	(44)	(102)	(26)

Source: NERA mail survey. Note: Total number of valid responses in parentheses.

3. Experiences of Disparate Treatment in Business Dealings

The survey included questions about instances of disparate treatment based on race and/or gender experienced in various business dealings during the past five years. As shown in the two rightmost columns of Table 7.3, in almost every one of the 14 categories on which they were polled, substantially more M/WBEs than non-M/WBEs reported experiencing disparate treatment, casting doubt on claims of widespread "reverse discrimination." In many cases, these differences were also statistically significant.

On average, reports were highest among Native Americans, with an overall rate of 58 percent, followed in descending order, by African Americans (48%), Hispanics (37%), nonminority women (37%), and Asians/Pacific Islanders (27%). By comparison, the reported rate for nonminority males was 31 percent. The balance of Table 7.3 shows results for each of 14 distinct types of disparate treatment that we asked about in the survey.

In 11 of 14 categories the ratio of the reported amount of disparate treatment between M/WBEs and non-M/WBEs is large—more than 150 percent of the reported rate for non-M/WBEs. In 8 of 14 categories this difference is statistically significant as well. In several categories the reported incidence of disparate treatment is even more severe than 150 percent of the non-M/WBE rate of incidence. In applying for commercial loans, for example, M/WBEs reported disparate treatment almost 400 percent more frequently than nonminority males.[157] In applying for surety bonds and in obtaining price quotes from suppliers, it was over 300 percent more frequent. In working or attempting to work on private sector prime contracts and subcontracts, it was over 200 percent more frequent, and this was true in applying for commercial or professional insurance and in functioning without hindrance or harassment on the worksite as well.

Table 7.3 also provides evidence of the positive impact of public sector M/WBE programs in the San Antonio economy. The two categories with the smallest relative differences—by far—between M/WBEs and non-M/WBEs were working or attempting to work on public sector prime contracts and working or attempting to work on public sector subcontracts. In these two categories the incidence of disparate impact was 0.87 and 0.88 times more frequent, respectively.

[157] For more evidence on this topic, *see* Chapter V.

Table 7.3. Firms Indicating They Had Been Treated Less Favorably Due to Race and/or Gender While Participating in Business Dealings

Business Dealings	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority Total	Non-minority Female	M/WBE Total	Non-minority Male
Applying for commercial loans	**31.0%**	**16.1%**	11.1%	**37.5%**	**17.7%**	**12.4%**	**16.0%**	**4.1%**
	(29)	**(255)**	(18)	**(8)**	**(310)**	**(145)**	**(455)**	**(98)**
Applying for surety bonds	10.0%	**10.6%**	0.0%	16.7%	**10.0%**	2.2%	***7.8%***	***2.4%***
	(20)	**(188)**	(15)	(6)	**(229)**	(90)	***(319)***	***(83)***
Applying for commercial or professional insurance	**20.6%**	***8.0%***	7.4%	0.0%	***8.9%***	3.8%	7.2%	3.5%
	(34)	***(300)***	(27)	(9)	***(370)***	(185)	(555)	(115)
Hiring workers from union hiring halls	0.0%	7.6%	0.0%	0.0%	6.4%	1.5%	4.9%	1.8%
	(11)	(118)	(7)	(4)	(140)	(65)	(205)	(57)
Obtaining price quotes from suppliers or subcontractors	**19.2%**	**14.0%**	0.0%	11.1%	**13.4%**	***9.2%***	**12.0%**	**3.6%**
	(26)	**(272)**	(22)	(9)	**(329)**	***(163)***	**(492)**	**(110)**
Working or attempting to obtain work on public sector prime contracts	36.4%	20.3%	***5.0%***	50.0%	21.8%	19.0%	20.9%	24.1%
	(33)	(237)	***(20)***	(8)	(298)	(137)	(435)	(87)
Working or attempting to obtain work on public sector subcontracts	***37.9%***	20.3%	10.0%	37.5%	21.8%	15.2%	19.7%	22.4%
	(29)	(236)	(20)	(8)	(293)	(138)	(431)	(85)
Working or attempting to obtain work on private sector prime contracts	**40.6%**	**20.2%**	13.6%	22.2%	**21.9%**	***15.5%***	**19.9%**	**7.9%**
	(32)	**(252)**	(22)	(9)	**(315)**	***(148)***	**(463)**	**(101)**
Working or attempting to obtain work on private sector subcontracts	**37.9%**	**20.3%**	14.3%	11.1%	**21.3%**	13.0%	**18.5%**	**8.6%**
	(29)	**(246)**	(21)	(9)	**(305)**	(154)	**(459)**	**(93)**
Receiving timely payment for work performed	23.1%	**25.0%**	12.0%	30.0%	**24.1%**	21.8%	***23.3%***	***15.5%***
	(26)	**(292)**	(25)	(10)	**(353)**	(197)	***(550)***	***(116)***
Functioning without hindrance or harassment on the work site	11.5%	**16.7%**	***15.0%***	14.3%	**16.1%**	***12.8%***	**14.9%**	**5.6%**
	(26)	**(258)**	***(20)***	(7)	**(311)**	***(172)***	**(483)**	**(107)**
Joining or dealing with construction trade associations	6.3%	9.6%	0.0%	0.0%	8.5%	4.6%	7.3%	5.7%
	(16)	(197)	(14)	(7)	(234)	(109)	(343)	(87)
Having to do inappropriate or extra work not required of comparable non-M/WBEs	20.8%	14.6%	14.3%	25.0%	15.4%	***16.6%***	***15.8%***	***8.8%***
	(24)	(253)	(21)	(8)	(306)	***(157)***	***(463)***	***(102)***
Double standards not required of comparable non-M/WBEs	**21.4%**	14.1%	17.4%	12.5%	15.0%	15.2%	15.0%	9.3%
	(28)	(262)	(23)	(8)	(321)	(158)	(479)	(107)
In any one of the business dealings listed above	***47.6%***	37.4%	27.3%	***58.3%***	**38.2%**	36.5%	37.6%	31.1%
	(42)	(345)	(33)	***(12)***	**(432)**	(230)	(662)	(135)

Source: See Table 7.2.

Notes: Total number of valid responses in parentheses. Figures in **boldface** type are statistically significantly different from non-M/WBEs using a conventional two-tailed Fisher's Exact Test and within a 95% or better confidence interval. Figures in ***boldface italicized*** type are significant within a 90% confidence interval.

Table 7.4 represents the same disparate treatment information as in Table 7.3, but with the frequency percentages replaced by relative rankings. That is, the 14 kinds of disparate treatment are ranked by each group according to the frequency with which disparate treatment was reported, with "1" representing the most frequent and "14" representing the least frequent.[158] The most frequently reported problem overall for M/WBEs—as opposed to the one with the most relative difference from non-M/WBEs—was receiving timely payment for work performed. The next five most frequently reported, in descending order of frequency, were working or attempting to work on public sector prime contracts,[159] working or attempting to work on private sector prime contracts, working or attempting to work on public sector subcontracts,[160] and applying for commercial loans.

Some courts and other observers have asserted that findings such as those in Tables 7.3 and 7.4 tell us nothing about discrimination against M/WBEs since, even though they are current and come directly from the businesses reporting disparate treatment, even though they are restricted to the relevant geographic and product markets, even though they are disaggregated by contracting category and by race and gender, they still do not compare firms of similar size, qualifications, or experience. We have argued elsewhere against such flawed logic (and economics) since size, qualifications, and experience are *precisely* the factors that are adversely impacted by discrimination (Wainwright and Holt, 2010, 65-67; Wainwright, 2000, 86-87). Nevertheless, if disparities are still observed even when such "capacity" factors are held constant, the case becomes even more compelling.

The results reported next in Table 7.5 show that even when levels of size, qualifications, and experience are held constant across firms, measures of disparate treatment of M/WBEs are still large, adverse, and statistically significant.

[158] In the case of ties, not all 14 ranks will be present.

[159] In these two survey questions, "public sector" refers to public sector entities in general and not the City of San Antonio specifically.

[160] In these two survey questions, "public sector" refers to public sector entities in general and not the City of San Antonio specifically.

Table 7.4. Firms Indicating They Had Been Treated Less Favorably Due to Race and/or Gender While Participating in Business Dealings (Rankings)

Business Dealings	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority Total	Non-minority Female	M/WBE Total
Applying for commercial loans	4	7	6	2	6	9	6
Applying for surety bonds	11	11	10	6	11	13	11
Applying for commercial or professional insurance	8	13	8	10	12	12	13
Hiring workers from union hiring halls	13	14	10	10	14	14	14
Obtaining price quotes from suppliers or subs	9	10	10	9	10	10	10
Working or attempting to obtain work on public sector prime contracts	3	4	9	1	4	2	2
Working or attempting to obtain work on public sector subcontracts	2	2	7	2	3	5	4
Working or attempting to obtain work on private sector prime contracts	1	5	4	5	2	4	3
Working or attempting to obtain work on private sector subcontracts	2	3	3	9	5	7	5
Receiving timely payment for work performed	5	1	5	3	1	1	1
Functioning without hindrance or harassment on the work site	10	6	2	7	7	8	9
Joining or dealing with trade associations	12	12	10	10	13	11	12
Having to do inappropriate or extra work not required of comparable non-M/WBEs	7	8	3	4	8	3	7
Having to meet quality or performance standards not required of comparable non-M/WBEs	6	9	1	8	9	6	8

Source: See Table 7.2.

In Table 7.5, we report the results from a series of Probit regressions using the mail survey data on disparate treatment.[161] As indicated earlier, the survey questionnaire collected data related to each firm's size, qualifications, and experience. The reported estimates from these models can be interpreted as changes or differences in the probability of disparate treatment conditional on the control variables. The estimates in the table show large differences in disparate treatment probabilities between M/WBEs and non-M/WBEs. In column (1) of Table 7.5 (in which the regression model contains only M/WBE status and contracting category indicators), the estimated coefficient of 0.083 on the M/WBE variable indicates that the likelihood of experiencing disparate treatment for M/WBE firms is 8.3 percentage points higher than that for non-M/WBE firms.[162] This difference is statistically significant. Column (2) of Table 7.5 includes additional explanatory variables to hold constant differences in the characteristics of firms that may vary by race or gender, including the owner's education, the age of the firm, and the size of the firm measured by employment and by sales. Even after controlling for these differences, however, M/WBE firms remain 6.5 percentage points more likely than non-M/WBE firms to experience disparate treatment. Firm size and other "capacity"-type characteristics account for only a portion of the disparate treatment reported by M/WBEs in the City of San Antonio's market area.

The exercise is repeated in columns (3) and (4). The only difference in these columns from the earlier regressions is that the M/WBE variable is now separated into two components—one for minority-owned firms and one for nonminority-female owned firms. The results in column (3) indicate that minority-owned firms in the City of San Antonio's market area are 8.8 percentage points more likely to experience disparate treatment than non-M/WBE firms. When controls are added in column (4), this difference falls modestly to 6.8 percentage points, indicating that controlling for other "capacity"-type factors makes only a limited difference in the incidence of disparate treatment. The differences for nonminority female-owned firms are similar, showing an 8.2 percentage point difference with only the industry controls and a modestly smaller 6.5 percentage point difference when the full set of capacity-type controls is added.

The exercise is repeated a final time in columns (5) and (6) with separate indicators for each type of M/WBE. The results for nonminority females are nearly identical to those in columns (3) and (4). For African American-owned firms, the differential is 19.9 percentage points in column (5), falling slightly to 18.3 percentage points after the full set of controls is added. These differences are statistically significant. For Hispanic-owned firms, the differential is 7.9 percentage points in column (5), falling modestly to 5.6 percentage points after the full set of controls is added. For Asian/Pacific Islander-owned firms, the differential is 1.4 percentage points in column (5), rising to 3.7 percentage points after the full set of controls is added. For Native American-owned firms, the differential is 28.1 percentage points in column (5), essentially unchanged at 28.0 percentage points after the full set of controls is added. These differences are statistically significant.

[161] *See* Chapter IV for a description of Probit regression.

[162] This estimate largely replicates the raw difference in disparate treatment rates between M/WBE and non-M/WBE firms reported in the last row of Table 7.3. The raw differential observed there (37.6% – 31.1% = 6.5%) differs somewhat from the 8.3% differential reported here since the regression specification also controls for industry category.

Table 7.5. Prevalence of Disparate Treatment Facing M/WBEs

	(1)	(2)	(3)	(4)	(5)	(6)
M/WBE	0.083 (1.82)	0.065 (1.30)				
Minority			0.088 (1.80)	0.068 (1.28)		
Nonminority Female			0.082 (1.50)	0.065 (1.10)	0.083 (1.51)	0.066 (1.12)
African American					0.199 (2.24)	0.183 (1.91)
Hispanic					0.079 (1.56)	0.056 (1.02)
Asian/Pacific Islander					(0.014) (-0.14)	(0.037) (-0.36)
Native American					0.281 (1.90)	0.280 (1.82)
Owner's Education (3 indicator variables)	No	Yes	No	Yes	No	Yes
Firm Age (4 indicators)	No	Yes	No	Yes	No	Yes
Employment size bracket (6 indicators)	No	Yes	No	Yes	No	Yes
Sales/revenue size bracket (4 indicators)	No	Yes	No	Yes	No	Yes
Industry category (3 indicators)	Yes	Yes	Yes	Yes	Yes	Yes
N Pseudo R^2 Chi^2 Log likelihood	797.00 0.02 18.26	753.00 0.04 43.59	797.00 0.02 18.29	753.00 0.04 43.60	797.00 0.02 23.62	753.00 0.05 49.15

Source: See Table 7.2.

Notes: Reported estimates are derivatives from Probit models, t-statistics are in parentheses. A t-statistic of 1.96 (1.64) or larger indicates that the result is significant within a 95 (90) percent confidence interval.

Table 7.6. Prevalence of Disparate Treatment Facing M/WBEs, by Type of Business Dealing

Business Dealings	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority Total	Non-minority Female	M/WBE Total
Applying for commercial loans	**35.2%**	**13.5%**	13.2%	**47.0%**	**13.9%**	***11.6%***	**10.0%**
	(3.12)	**(2.45)**	(1.07)	**(2.66)**	**(2.76)**	***(1.78)***	**(2.55)**
Applying for surety bonds	5.7%	6.5%	0.0%	14.7%	5.3%	-1.7%	3.8%
	(0.68)	(1.52)	(0.00)	(0.95)	(1.41)	(-0.35)	(1.09)
Applying for commercial or professional insurance	**17.7%**	4.8%	4.8%	0.0%	***4.9%***	0.5%	3.1%
	(2.51)	(1.63)	(0.76)	(0.00)	***(1.81)***	(0.17)	(1.36)
Hiring workers from union hiring halls	0.0%	11.7%	0.0%	0.0%	5.8%	-0.1%	4.0%
	(0.00)	(1.15)	(0.00)	(0.00)	(0.57)	(-0.01)	(0.43)
Obtaining price quotes from suppliers or subcontractors	***15.0%***	**9.1%**	0.0%	7.9%	**7.7%**	6.4%	5.7%
	(1.67)	**(2.19)**	(0.00)	(0.61)	**(2.04)**	(1.35)	(1.90)
Working or attempting to obtain work on public sector prime contracts	8.8%	-3.4%	***-15.7%***	17.4%	-2.3%	-4.9%	-3.4%
	(0.99)	(-0.66)	***(-1.87)***	(1.12)	(-0.45)	(-0.91)	(-0.66)
Working or attempting to obtain work on public sector subcontracts	7.2%	-2.9%	***-13.3%***	5.6%	-2.5%	-8.6%	-5.0%
	(0.79)	(-0.57)	***(-1.67)***	(0.40)	(-0.50)	(-1.63)	(-0.96)
Working or attempting to obtain work on private sector prime contracts	**42.5%**	**16.1%**	7.2%	15.0%	**15.6%**	***10.4%***	**11.3%**
	(3.90)	**(2.99)**	(0.68)	(0.97)	**(3.19)**	***(1.69)***	**(2.83)**
Working or attempting to obtain work on private sector subcontracts	**31.8%**	**11.7%**	5.2%	0.6%	**11.4%**	3.3%	***8.0%***
	(2.98)	**(2.25)**	(0.51)	(0.04)	**(2.36)**	(0.57)	***(1.87)***
Receiving timely payment for work performed	5.0%	7.9%	-2.1%	13.3%	7.0%	6.2%	6.2%
	(0.50)	(1.54)	(-0.21)	(0.87)	(1.43)	(1.11)	(1.40)
Functioning without hindrance or harassment on the work site	4.1%	**11.3%**	13.9%	10.9%	**10.2%**	***9.5%***	**8.0%**
	(0.45)	**(2.28)**	(1.28)	(0.69)	**(2.20)**	***(1.72)***	**(2.12)**
Joining or dealing with construction trade associations	-0.5%	1.0%	0.0%	0.0%	0.2%	-3.2%	-0.8%
	(-0.09)	(0.37)	(0.00)	(0.00)	(0.08)	(-1.15)	(-0.29)
Having to do inappropriate or extra work not required of comparable non-M/WBEs	17.2%	***8.9%***	14.0%	23.4%	**9.3%**	**11.1%**	**8.0%**
	(1.60)	***(1.87)***	(1.31)	(1.47)	**(2.07)**	**(2.03)**	**(2.19)**
Having to meet quality, inspection, or performance standards not required of comparable non-M/WBEs	**20.4%**	6.3%	13.6%	4.7%	***7.1%***	8.3%	***6.4%***
	(2.01)	(1.38)	(1.35)	(0.33)	***(1.64)***	(1.59)	***(1.73)***
In any one of the business dealings listed above	***18.3%***	5.6%	-3.7%	***28.0%***	6.8%	6.5%	6.5%
	(1.91)	(1.02)	(-0.36)	***(1.82)***	(1.28)	(1.10)	(1.30)

Source: See Table 7.2.

Notes: Reported estimates are derivatives from Probit models with specification such as in Table 7.5, column (2). The t-statistics are in parentheses. A t-statistic of 1.96 (1.64) or larger indicates that the result is significant within a 95 (90) percent confidence interval. Results with t-statistics of 1.96 or higher are **boldfaced**. Results with t-statistics of 1.64 or higher are ***boldfaced italicized***.

The regression models reported in Table 7.5 used as their dependent variable an indicator of whether or not a survey respondent reported having been treated less favorably in *any* of the 14 different types of business dealings described in the first column of Table 7.3. We re-estimated the regression model reported in Column (2) of Table 7.5 separately using as the dependent variable, in turn, each of the 14 types of business dealings and report those results in Table 7.6. As Table 7.6 shows, African American- and Hispanic-owned firms, in particular, experience a wide variety of disparate treatment compared to non-M/WBEs. In 6 of 14 categories, the differences for African American- and Hispanic-owned firms are both large and statistically significant.

4. Impact of Current Business Environment on Ability to Win Contracts

The survey also asked questions about some common features of the business environment to determine which factors were perceived by M/WBEs as serious impediments to obtaining contracts. As Table 7.7 indicates, substantial percentages of both M/WBEs and non-M/WBEs report that certain factors, such as "Late Notice of Bid/Proposal Deadlines," "Large project sizes," "Bonding requirements," "Cost of bidding and proposing," "Price of supplies or materials," and Obtaining working capital" make it harder or impossible for their firms to obtain contracts. Among non-M/WBEs, for example, 19 percent reported that the cost of bidding or proposing made it harder or impossible for them to win contracts, 27 percent reported that large project sizes had this effect, 17 percent reported that the price of supplies or materials had this effect, and 21 percent reported that obtaining working capital had this effect. The figures for M/WBEs in these four categories, however, at 35 percent, 47 percent, 26 percent, and 34 percent, respectively, are substantially and statistically significantly higher than those for non-M/WBEs. Indeed, as Table 7.7 shows, M/WBEs reported significantly more difficulty than non-M/WBEs on all nine factors about which they were polled. In general, the rates at which M/WBEs reported difficulty with these factors were between 1.1 to 1.9 times the rates reported by non-M/WBEs.

Table 7.7. Firms Indicating that Specific Factors in the Business Environment Make It Harder or Impossible to Obtain Contracts—Sample Differences

Business Environment	African American	Hispanic	Asian/ Pacific Islander	Native American	Minority Total	Non-minority Female	M/WBE Total	Non-M/WBEs
Bonding Requirements	25.0% (20)	33.9% (180)	33.3% (9)	20.0% (5)	32.7% (214)	**42.9% (84)**	35.6% (298)	29.0% (69)
Insurance Requirements	27.6% (29)	16.4% (256)	11.1% (18)	18.2% (11)	17.2% (314)	21.4% (159)	18.6% (473)	15.9% (107)
Previous Experience Requirements	**37.5% (32)**	16.1% (261)	18.2% (22)	18.2% (11)	18.4% (326)	19.8% (167)	18.9% (493)	14.5% (110)
Cost of Bidding or Proposing	**36.7% (30)**	**33.1% (242)**	**52.6% (19)**	33.3% (12)	**34.7% (303)**	**35.3% (153)**	**34.9% (456)**	**18.9% (106)**
Large Project Sizes	**56.7% (30)**	**48.3% (238)**	41.2% (17)	**58.3% (12)**	**49.2% (297)**	**43.5% (147)**	**47.3% (444)**	**27.1% (107)**
Price of Supplies or Materials	**44.4% (27)**	***24.9% (245)***	36.4% (11)	27.3% (11)	**27.2% (294)**	22.9% (140)	***25.8% (434)***	***17.0% (100)***
Obtaining Working Capital	**56.7% (30)**	**33.0% (233)**	36.4% (11)	40.0% (10)	**35.9% (284)**	***30.8% (133)***	**34.3% (417)**	**20.9% (91)**
Late Notice of Bid/Proposal Deadlines	***69.2% (26)***	52.7% (224)	53.3% (15)	50.0% (10)	54.2% (275)	53.6% (138)	54.0% (413)	47.4% (95)
Prior Dealings with Owner	**26.9% (26)**	***13.5% (245)***	***17.6% (17)***	8.3% (12)	**14.7% (300)**	9.9% (162)	***13.0% (462)***	***7.1% (112)***

Source: See Table 7.2.

Notes: Total number of valid responses in parentheses. Figures in **boldface** type are adverse and statistically significantly different from non-M/WBEs using a conventional two-tailed Fisher's Exact Test and within a 95% or better confidence interval. Figures in ***boldface italicized*** type are adverse and significant within a 90% confidence interval.

To control for firm and owner characteristics, we used a regression technique known as ordered Probit.[163] Ordered Probit regression is used when the dependent variable is discrete and ordinal (and hence can be ranked). We use ordered Probit to model the ordinal ranking—(1) "helps me," (2) "has no effect," (3) "makes it harder," or (4) "makes it impossible"—of the aspect of procurement under consideration. The firm characteristics used as control variables consist of the age of the firm, the number of employees, the size of revenues, the education level of the primary owner of the firm and the major industry group. To report results from ordered Probit analysis, we use a "+" to indicate that M/WBEs had more difficulty than non-M/WBEs with similar firm characteristics, and a "–" to indicate that M/WBEs had less difficulty than non-M/WBEs with similar firm characteristics.

Table 7.8 reports the sign and statistical significance from the ordered Probit analysis. We find that when observable firm characteristics are controlled for, seven of the nine of the factors we inquired about prove to be greater difficulties for M/WBEs than for non-M/WBEs (as indicated by the "+" sign), even when "capacity"-type factors such as employment size, revenue size, years in business, and owner education are held constant. The disparities observed regarding previous experience requirements, the cost of bidding or proposing, large project sizes, and prior dealings with the owner, in particular, were statistically significant with respect to non-M/WBEs.

Table 7.8. Firms Indicating that Specific Factors in the Business Environment Make It Harder or Impossible for M/WBEs to Obtain Contracts, Regression Results

Business Environment	M/WBEs
Bonding Requirements	–
Insurance Requirements	–
Previous Experience Requirements	+†
Cost of Bidding or Proposing	+†
Large Project Sizes	+*
Price of Supplies or Materials	+
Obtaining Working Capital	+
Late Notice of Bid/Proposal Deadlines	+
Prior Dealings with Owner	+*

Source: See Table 7.2.

Notes: A plus (+) indicates that a group is more likely than non-M/WBEs to report difficulty with business environment factors. A minus (–) indicates that a group is less likely than non-M/WBEs to experience difficulty. An asterisk (*) indicates that the disparity is statistically significant within a 95% or better confidence interval. A dagger (†) indicates that the disparity is statistically significant within a 90% or better confidence interval.

[163] For a textbook discussion of ordered Probit, see, for example, Greene (1997).

5. Solicitation and Use of M/WBEs on Public and Private Projects Without Affirmative Action Goals

Our second to last survey question asked, "How often do prime contractors who use your firm as a subcontractor on public-sector projects with requirements for minority, women and/or disadvantaged businesses also *hire* your firm on projects (public or private) *without* such goals or requirements?" As Table 7.9 shows, 79 percent of African American-owned firms, 66 percent of Hispanic-owned firms, 61 percent of Asian/Pacific Islander-owned firms, 50 percent of Native American-owned firms, and 53 percent of nonminority female-owned firms responded that this seldom or never occurs. For minorities as a group the figure was 67 percent and for M/WBEs as a group the figure was 63 percent.

Table 7.9. Percent of M/WBEs Indicating that Prime Contractors Who Use Them as Subcontractors on Projects with Goals Seldom or Never *Hire* Them on Projects without Such Goals

M/WBE Group	All Industries	Construction	Architecture & Engineering	Professional & Other Services	Goods & Supplies
African American	79.4% (34)	80.0% (5)	0.0% (1)	82.6% (23)	80.0% (5)
Hispanic	66.0% (244)	55.7% (88)	53.3% (30)	76.8% (99)	74.1% (27)
Asian/Pacific Islander	60.9% (23)	75.0% (4)	50.0% (2)	58.3% (12)	60.0% (5)
Native American	50.0% (10)	50.0% (2)	0.0% (1)	57.1% (7)	- (0)
Minority Total	66.6% (311)	57.6% (99)	50.0% (34)	75.2% (141)	73.0% (37)
Nonminority Female	52.8% (123)	48.1% (27)	50.0% (16)	56.5% (62)	50.0% (18)
M/WBE Total	62.7% (434)	55.6% (126)	50.0% (50)	69.5% (203)	65.5% (55)

Source and Note: See Table 7.2.

At least one court has held that the failure of prime contractors to even *solicit* qualified minority- and women-owned firms is a "market failure" that serves to establish a government's compelling interest in remedying that failure.[164] Among the evidence relied upon for this holding was a NERA survey similar to the current one in which approximately 50 percent of the respondents reported that they were seldom or never solicited for non-goals work.[165]

Our final survey question therefore asked "How often do prime contractors who use your firm as a subcontractor on public-sector projects with requirements for minority, women and/or disadvantaged businesses *solicit* your firm on projects (public or private) *without* such goals or requirements?" Responses to this question are tabulated in Table 7.10, which shows the same

[164] *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725, 737 (N.D. Ill. 2003).

[165] *Id.*

pattern as in Table 7.9. In Table 7.10, 77 percent of African American-owned firms, 65 percent of Hispanic-owned firms, 70 percent of Asian/Pacific Islander-owned firms, 50 percent of Native American-owned firms, and 54 percent of nonminority female-owned firms responded that this seldom or never occurs. For minorities as a group the figure was 66 percent and for M/WBEs as a group the figure was 62 percent. Similar results were observed in each major contracting category as well.

Table 7.10. Percent of M/WBEs Indicating that Prime Contractors Who Use Them as Subcontractors on Projects with Goals Seldom or Never *Solicit* Them on Projects without Such Goals

M/WBE Group	All Industries	Construction	Architecture & Engineering	Professional & Other Services	Goods & Supplies
African American	76.7% (30)	80.0% (5)	0.0% (1)	85.0% (20)	50.0% (4)
Hispanic	65.3% (245)	57.8% (90)	60.0% (30)	71.7% (99)	73.1% (26)
Asian/Pacific Islander	69.6% (23)	75.0% (4)	100.0% (3)	63.6% (11)	60.0% (5)
Native American	50.0% (12)	66.7% (3)	0.0% (1)	50.0% (8)	- (0)
Minority Total	66.1% (310)	59.8% (102)	60.0% (35)	71.7% (138)	68.6% (35)
Nonminority Female	53.7% (134)	54.8% (31)	47.4% (19)	53.8% (65)	57.9% (19)
M/WBE Total	62.4% (444)	58.6% (133)	55.6% (54)	66.0% (203)	64.8% (54)

Source and Note: See Table 7.2.

6. Impact of Survey Non-Response

Since the mail survey was voluntary, it is important to account for the fact that a majority of those who received it did not respond. As a check on the usefulness of the information obtained from our mail survey respondents, we conducted telephone surveys of 3,500 randomly selected M/WBEs and non-M/WBEs that did not respond to our mail survey. The purpose of this "non-response" survey is to test whether their answers to key survey questions were different from the answers of respondents in ways that would call into question the relevance of the information obtained from our mail survey respondents.

We obtained complete responses from 820 firms, for a raw response rate of 23 percent. After removing duplicate records, records where the firm was no longer in business, and records where the telephone number was disconnected or the listing was otherwise unreachable, the effective response rate increased to 40 percent.

For the non-respondent survey, we selected three questions from the mail survey to pose to non-respondents. The first question asked whether large project sizes helped or harmed the firm's ability to obtain public or private sector contracts. The second question asked whether and how frequently the firm had experienced discrimination in attempting to apply for commercial loans. The final question asked whether and how frequently the firm had experienced discrimination in working or attempting to work on private sector prime contracts.

Not surprisingly, one difference that we observed between respondents and non-respondents was a greater general interest in the questions being asked. Among survey respondents, only 29.6 percent indicated that the question about large project sizes was "not applicable." Among non-respondents, the figure was 43.4 percent. Among survey respondents, 47.9 percent indicated that discrimination in applying for commercial loans never occurred, compared to 55.6 percent among non-respondents. Among survey respondents, 46.9 percent indicated that discrimination in working or attempting to work on private sector prime contracts never occurred, compared to 67.3 percent among non-respondents. This phenomenon was apparent regardless of whether the firm was minority-owned, women-owned, or nonminority male-owned.

Among those firms to which the question was applicable, 43.2 percent of minority-owned firms that did not respond to the mail survey indicated that large project sizes made it harder or impossible for them to obtain contract awards. Among those that did respond to the survey, the figure was 49.2 percent. This difference is not statistically significant. Among female-owned firms that did not respond to the mail survey, 35.9 percent indicated that large project sizes made it harder or impossible for them to obtain contract awards. This difference is statistically significant. Among those that did respond to the survey, the figure was 47.3 percent.[166] Among nonminority male-owned firms that did not respond to the mail survey, 23.3 percent indicated that large project sizes made it harder or impossible for them to obtain contract awards. Among those that did respond to the survey, the figure was 27.1 percent. This difference is also statistically significant.

[166] The percentages reported in this section may differ slightly from comparable figures reported elsewhere in Chapter VII, since minorities of unknown race or ethnicity were excluded from the tallies in the mail survey.

We see from these results that substantially more M/WBEs than non-M/WBEs report that large project sizes make it harder or impossible for them to obtain contracts, regardless of whether they responded to the mail survey or not. We also see that reports that large project sizes make it harder or impossible for firms to obtain contracts are greater among mail survey respondents than among non-respondents, regardless of M/WBE status. However, the ratio of M/WBEs to non-M/WBEs reporting difficulty in this regard is not statistically significantly different between respondents and non-respondents, implying that the estimate of adverse disparity for M/WBE firms with regard to large project sizes that was reported from the mail survey (see Tables 7.7 and 7.8) is representative of the universe of firms as a whole.

Among those firms to which the question was applicable, 12.7 percent of minority-owned firms that did not respond to the mail survey indicated that they had experienced one or more instances of discrimination during the previous five years in applying for commercial loans. Among those that did respond to the survey, the figure was 17.7 percent. This difference is statistically significant. For female-owned firms, 10.8 percent of those that did not respond to the mail survey indicated that they had experienced one or more instances of discrimination during the previous five years in applying for commercial loans. Among those that did respond to the survey, the figure was 14.9 percent. This difference is not statistically significant. Among nonminority male-owned firms that did not respond to the mail survey, 3.5 percent indicated that they had experienced one or more instances of discrimination during the previous five years in applying for commercial loans. Among those that did respond to the survey, the figure was 4.1 percent. This difference is not statistically significant.

We see from these results, once again, that substantially more M/WBEs than non-M/WBEs report experiencing discrimination in applying for commercial loans during the previous five years, regardless of whether they responded to the mail survey or not. Moreover, the ratio of M/WBEs to non-M/WBEs reporting discrimination is not statistically significantly different among non-respondents than respondents, indicating that the estimate of adverse disparity for M/WBE firms with regard to discrimination in applying for commercial loans reported from the mail survey (see Tables 7.3, 7.4 and 7.6) is representative of the universe of firms as a whole.

Among those firms to which the question was applicable, 9.1 percent of minority-owned firms that did not respond to the mail survey indicated that they had experienced one or more instances of discrimination during the previous five years in working or attempting to work on private sector prime contracts. Among those that did respond to the survey, the figure was 21.9 percent. For female-owned firms, 9.0 percent of those that did not respond to the mail survey indicated that they had experienced one or more instances of discrimination during the previous five years in working or attempting to work on private sector prime contracts. Among those that did respond to the survey, the figure was 17.4 percent. Both of these differences are statistically significant. Among nonminority male-owned firms that did not respond to the mail survey, 3.0 percent indicated that they had experienced one or more instances of discrimination during the previous five years in working or attempting to work on private sector prime contracts. Among those that did respond to the survey, the figure was 7.9 percent. This difference is not statistically significant.

Yet again, these results show that more M/WBEs than non-M/WBEs report experiencing discrimination in working or attempting to work on private sector prime contracts during the

previous five years. They also show that reports of discrimination are greater among mail survey respondents than among non-respondents, regardless of M/WBE status. As with both other questions, the ratio of M/WBEs to non-M/WBEs reporting discrimination is not statistically significantly different among respondents than non-respondents, indicating that the estimate of adverse disparity for M/WBE firms with regard to discrimination in working or attempting to work on private sector prime contracts shown above (see Tables 7.3, 7.4 and 7.6) is also representative of the universe of firms as a whole.

In conclusion, the results of our non-respondent survey indicate that both M/WBEs and non-M/WBEs are more likely to have responded to the mail survey if they had experienced the difficulties identified in the mail survey and also that M/WBEs reported greater difficulties than non-M/WBEs whether or not they responded to the mail survey. For all three of the questions we examined, this means the actual disparities facing M/WBEs in the San Antonio market area are equivalent to those that we estimated in our mail survey. For all three questions examined, the basic qualitative finding of more problems and greater disparities being observed among M/WBEs than among non-M/WBEs is unchanged.

C. Business Owner Interviews

To explore additional anecdotal evidence of possible discrimination against minorities and women (collectively, M/WBEs) in the San Antonio market area, we conducted seven focus group sessions and one stakeholder meeting for African American business owners. Combined, we met with 90 business owners or representatives, and received written comments as well, from a cross section of the industries from which the City of San Antonio procures goods and services. Firms ranged in size from large national businesses to much smaller and newer firms. Owners' backgrounds included individuals with decades of experience in their fields as well as entrepreneurs at the start of their business careers. We sought to explore their experiences with discrimination in seeking and performing public and private sector contracting opportunities, and with the City of San Antonio's contracting and purchasing policies.

This effort gathered individual perspectives to augment the statistical information in the study, including that from the business experience surveys. In general, interviewees' individual experiences echoed the responses to the business experience surveys. We also elicited feedback, both positive and negative, on the City's contracting and purchasing policies, along with corresponding recommendations for improvements. These are reported below in Chapter VIII.

The following are summaries of the issues discussed. Quotations are indented, and are intended to represent the views expressed by several participants.

1. Perceptions of Competence and Qualifications and Higher Performance Standards

Although many, during the interviews, recognized that while there had been significant progress integrating minorities and women into the City of San Antonio's public and private sector contracting activities, many barriers remain. Although not quantifiable, one persistent theme in the interview was the continuing influence of subtle negative perceptions and stereotypes. These stereotypes of a lack of competence infect all aspects of the M/WBEs' attempts to obtain

contracts and to be treated equally in performing contract work. Minorities and women repeatedly discussed their struggles with negative perceptions and attitudes of their capabilities in the business world.

> I've been doing this for 25 years. When I started on my own, I had been doing it for 15 years. The point is, I had been doing it for 15 years so now on my own. There should be no question that I can do it, but they still question you whether you can do it or not.

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> I would say there's a way communicating that can come across that you're being offered something that maybe you're not entitled to, and it comes across sometimes when people are talking to you…And it can be off-putting as a sub. It can be frustrating.

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> There's been words like your capacity is not enough. When I hear those, I just cringe because I'm like my capacity is more than enough. It's not the first time I've done work with you guys. But when you hear that, it's something that hurt because they're questioning the fact that I can't get the job done.

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> [M]y grandfather used to tell me, people think white man's ice is colder. So I know when somebody else did the same type of project and put forth a price of a certain amount. And when I put forth the same price, somehow my price is too high. I said how is that possible…We had a tough time and we still aren't getting paid the amount that I think we should get based upon what I heard about the other guy who is doing the same type of project.

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> I've had white firm, white architects tell me if we hired you as a sub consultant on our project, we will not let you present your work.

One African American contractor stated that the negative view of a majority prime contractor toward minority contractors could be best explained as follows:

> They just automatically think that we don't have our stuff together. They automatically think that we are not going to do a good job so, therefore – whatever the experience they've had with anybody that sort of looked like you, they automatically put that upon you and say he's not going to be able to build this business. He's not going to be able to [do] this big job. So I'm sure that's in their mind as they move forward.

One WBE construction firm stated that the negative view of a majority prime contractor continues for women-owned businesses in the construction industry.

> [B]ut as a woman in construction, I can tell you that I think people come to me with assumptions that I don't know things, because I'm a woman…So to say that we don't need it, I have a hard time saying we don't need it, because I'm on the receiving end of it every day and have been for 25 years.

Prime contractors have privately and publically stated to City staff members their opposition to doing business with minority- and women-owned businesses.

> So when I go to meetings for how to fill out a waiver or pre-bids, people will literally come up to me, other contractors, particularly other white contractors, thinking they can trust answers they can say to me, and they'll tell me things very bluntly about they don't want to utilize minority, women or African Americans

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> I remember when I was first – when we were rolling out the program…And there was one group that the gentleman was just yelling at me and saying, "You can't make me contract with Mexicans, because all they care about is just buying a new truck and they don't care about building their business, why should I care about them."

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> We had a situation where we explained, "We expect you to engage with African (American) – not just minority, not just small business, but specifically African American owned businesses. We know there are few, but we know they're there, and you need to reach out to them." And I still remember the comment I got was, "Well I don't work with those businesses," those businesses…

Many M/WBE firms also reported that the M/WBE goal on City projects is the ceiling and not the floor for most nonminority prime contractors.

> I'm speaking from a professional services side,…but they will say, if there is a 4 or 5 percent goal, they will go in, and they will say, okay, that's X amount of dollars, and when you get the point of – if you finish the project or not, as it gets to that 5 percent, they say, well, we've reached that, and we can't go any further…It's about meeting that ceiling and not going any further.

***

> If you're subbing, you'll get a call from a firm and they ask you if you're interested in the project and say yes and you start talking about percentages. There are some out there who say the City deals with 2.5 percent African American goal. That's what they are giving you. I can't work with 2.5 percent.

***

> [I]f you a small minority owned business and you're working as a prime, you're more enticed to look at the scope and say, listen, tell me what you can bring in terms of resources, and whatever it is, if it's 12 percent, 16 percent, we've got, you get the job. On the flip side, when you're a sub to a prime, they put a ceiling to the table.

A significant number of M/WBE firms believe that the majority contracting community does not make an honest effort to work with M/WBE firms.

> A general contractor, if he wants a waiver, he will send you the information two to three days before the job is bid and there is no way that you can put together a bid in three days if its–by size of the project.

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> My experience, I bid a project [and] this company and they all assured me I was going to get the job, and the job was a salaried project on the electrical side…When the project was awarded we didn't hear from them. I couldn't come up with any other answer other than the fact that, that was a lot of money for an African American to have access to and they decided they didn't want to use me…

Members of the minority community were also critical of the good faith efforts process and that contractors were not sincere in their efforts to solicit business.

> [W]e actually got a call from a company who says, "Hey, we want to get your HUB certification number and this and that. We're going to participate on a City bid. And I said, "Well, okay, why don't we talk about an agreement first." "Well, we just need your information right now, so that we can put it on the subcontracting form." "Okay, what am I going to do for you as a subcontractor?" "Well, you are going to provide these products and services." "Don't you want to know our prices are first?" "No, right now we just need your information."

The nonminority engineering and construction firms that were interviewed recognized the importance of developing a relationship with the M/WBE firms with whom they were doing business.

> The best way to build a minority contractor is to develop a relationship with them, a working relationship or bring them in and have them work on a small part of your job.

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> Public, private, or whatever, and build a trust relationship and make sure they come up in the industry where they can put the right craftsman on your job and get the work done in such a way where, I don't care what color they are, can they come and get the work done. I've got a lot of minority contractors that I work with on any job. It's because of the work they do, it's not because they are a minority contractor.

***

> I know that I'm talking to some guys that I've never talked to before because I am forced to search them out. I probably – well, I'll speak for myself. I hate being told that I have to hire anyone, right? I mean, it's my life, my risk, my sleep, all these things do get affected. And so, in a sense I don't like being told that I have to hire anybody…But I support it, I go out there and I work with it. And again, I think we all go out there and try and improve the industry.

Several WBE owners articulated a contrary position that the issue of race and gender should not be considered in the procurement process and that discrimination against women was no longer an issue.

> As a female business owner, I have never experienced any kind of discrimination, nor do I wish to have any kind of preferential treatment. I have become increasing annoyed with government/labor union requirements and issues based on gender, race, etc. The exception would be special consideration for the handicapped or veteran. I wish to have a contract awarded based on the quality and need of my product.

***

> I don't think there's discrimination against women.

Some nonminority professional service contractors and construction contractors recognized the need to make an investment in the community and understood the need to foster the development of small businesses.

> To me that would help. I think that would help the community more than the other way because it will open up doors to more people that want to start businesses and help small businesses develop.

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> Well, like I was telling you, in our opinion I think it helps startups. I don't know that you really need to make it gender or ethnicity based. It's more on the size of business thing that I think would help the community.

2. Workplace Harassment

Although less overt, there was little disagreement that racism and gender discrimination continue to persist in the City of San Antonio public and private sector contracting. A trade association representative that we interviewed was of the opinion that:

> We feel that disparity still exists, that racism still exists, economic racism and the proof has been in the data….

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> I laughed about it, one I was in that meeting because they didn't want to approve my company and they totally ignored me. That's discrimination. That is discrimination.

Another trade association representative who works with African American contractors illustrated with two examples of discriminatory actions faced by some of these firms on construction job sites:

> One was an electrician…his bid was compatible with the other guy's bid and they chose to not want to deal with it…[H]e got the job. But then they gave him blues on the job, but he got the job…any of those crafts you can always nitpick everything and they just started nitpicking…
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> ***
>
> The other one was a cleanup person…After the project is done, they do all of the cleanup…And when they found out who was doing it, they were all right over the phone, but when they found out who was doing it, they didn't want to do it…I went to the site and it wasn't until I raised hell, there was nobody that look like us on the site; that meaning African American.

This is not to suggest that the experience of majority contractors as well as minority and women owned businesses is always negative.

> Where we sit now we only really do business with people we have a relationship with and trust. So those that are trying to get their goals, when we were coming to you, you didn't give us an opportunity so now we're not going to help you.
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> Our experience so far has been good…so it's been a good experience.

3. Payment

There was uniform agreement across ethnic and gender groups that one of the most important issues was payment, by both the government and the prime contractor.

Nonminority construction firms considered the City's processing of payments to be a major issue.

> It's improving, but payment is a major issue with the City. And so the subs that we are having to hire because of these programs – and I'm saying "we have to hire." Even our beloved subs, we cannot afford to carry these kinds of costs...
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> ***
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> [W]hen we work with a margin company or real small company we will go in with our eyes open. Sometimes they get paid weekly whereas we get paid monthly.

Minority- and women-owned firms also considered payment an issue and were particularly sensitive to the issue of payment and the negative impact delays in payment have upon their ability to succeed. Almost all of the minority owners stated that, in general, they had great difficulties being paid by primes.

> We did a job for a clinic that the prime contractor told us for three months that he didn't get paid. So I went to this guy that pays, I had knew somebody, it was, you know…but found out he did get paid but didn't pay us. And that job should've been for three months. It ended up being nine months because of it.

***

> As a sub I have not gotten paid for most projects for at least 120 to a 150 days. So if we didn't have cash flow, we would be out of business.

***

> [W]e are subs we've never been prime on any of these projects that the primes get paid but they don't pay their subs as timely as the City is paying them.

***

> We didn't get paid for nine months because invoicing was sent to accounts payable…and we finally said, "What is it you want so we can get it done right?"

Some M/WBE companies expressed frustration with the lack of support offered by the City on resolving payment issues.

> [A]couple of years when I was having so many problems with payments and this particular general contractor, I pretty much called every number that I could figure out on the website and talked to everybody at the City. And the standard response that I got was, do an open records request. Nobody would give me information on the project, on whether they had paid that contractor.

***

> Our company was part of the _____ situation here in San Antonio, and we lost $160,000 with that particular general contractor, and the City provided zero help to us, to the point where it was a struggle getting bond information so we could put [on] our lien.

Some M/WBE companies also expressed frustration with the retention process and the long delays in receiving retainage.

> And when it comes to payments, retention, they'll just hold it out on us. I am still waiting to get our retention from an airport project.

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> I'm coming in for demolition and the abatement or mold or whatever. Once I'm finished completing my work, I have to wait a whole year to get my retainage which is probably ten or five percent of the project. So I have ten thousand dollars sitting for a whole year that I can't recover. And I don't make that much.

Many minority contractors complemented the City on improving the payment process over the last two years.

> We, we've had construction projects for over five years and I could say that the experience has gotten a lot better in the last two years, just the timeliness of the payments.

***

> And we do the work, we send the bill, and they pay us mostly in 30 days.

4. Exclusion from Industry Networks

The perspective of many M/WBE firms was that the close knit nature of the construction industry intentionally or unintentionally contributes to the exclusion of minority firms from informal networks.

> I believe that it's about the good ole boys, it's about you deal with and you have business with people that you are comfortable with. They're comfortable with the people they are comfortable with, the people that they know, the people that they have relationships with. That's typically not us.

***

> I understand when you say that the general contractor would rather work with someone he's familiar with…Those same people I dealt with all of the time…But when you start your own company, I couldn't get no more projects with him. So it's kind of like why is that. We were always good. I always did a good job. He always complimented me on my work, but now that I have my own company…Just gives me the opportunity to bid and we go from there.

***

> [I]t's a good-old boy system here in San Antonio.

The perspective of the nonminority construction firms and M/WBE primes was that the good old boy network was not about race or gender.

> [T]he good old boy network with us is people we've worked with in the past and know they do good work. It doesn't have anything to do with race or gender, it's a performance thing. When you go out and work with somebody new, you're taking a risk.

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> I've been working with an African American women owned organization now for seven years. So she's small business, African American owned, minority everything, I don't look to change, because she's done a great job, I continue to use her. So, for my staffing contract when I [bid] it for the City, it's not that I'm not trying to give anybody else a chance, it's just that I have a great relationship built and she meets all the requirements…I already have somebody I want.

There was a strong consensus among African American architects that they were excluded by local firms from participating in any significant role in City projects.

> I've been blessed to get to work on some of the larger projects in the City. But the first large project I got with the City of San Antonio, there were no local firms that would talk to me. There was no local firm. And the way I got the job was that a big firm from another City requested my services. And it's happened more than once.

Some M/WBE companies were able to establish good working relationships and grow their business.

> I said if you don't want to give me these large projects even though I've run multi-billion dollar projects, let's start from the beginning. Let's build this initial relationship with a small project. Even though I know I'm qualified on this big one, let's start to hand hold on those small projects once we had a relationship. And I was able to do that. From that I was able to grow from those small projects once we had a relationship on a one-to-one basis with my own firm. Then they started getting more comfortable with me and I started getting larger projects.

5. Applying for Commercial Loans

Many minority owners, especially African Americans, stated that they found it difficult to obtain working capital. While perhaps not the direct result of discrimination by the lender, that minorities have been excluded from construction and other industries hampers their access to family wealth and networks that support growing businesses, making access to commercial credit all the more critical.

Several minority owned firms commented on their experience getting financing with a commercial bank.

> Well, money has just gotten harder to get in the last seven or eight years, just because of the recession and because of all the new bank rules that made the banks have…. [W]e've had lines of credit forever, and they've gotten more stringent, more rules, more reporting, more difficulty, just because all of the things that are going on. We found that a pretty

> good source is _____ bank. They're pretty reasonable. They'll look at your stuff and see what it is. Some other companies like some of the big ones like _____ are just terrible. I mean, they're worthless to deal with.

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> I tried _____ and they told me – they're awful, big time. And they gave me a credit card, but for the loan, they told me they wanted me to wait a year.

***

> SBA really does help out with loans, low interest rates…

6. Applying for Surety Bonds

Many firms reported difficulty obtaining surety bonds. The underwriting standards were so strict and required that the firm post cash or have sufficient assets to secure the bond that they could not qualify. They saw bonding as a barrier to growing and taking advantage of opportunities.

> That's a big problem. That's all part of …Depending where they are going to be, they're not giving you a bond, I don't care who you are.

***

> And a lot of times, the smaller firms, you know, we can't just get bonding companies that will be willing to bond us to go over that project, because they've never done one that large. So it makes it tough to get to that level…

The City of San Antonio's interest in growing the capacity of minority- and women-owned firms is being adopted by some firms in the local construction market.

> We're bidding on a project right now for SAHA, which you talk about bonding the whole job but what we've done is bid on different pieces of it, because the job is going to be nine months and it's going to be done in that order...So the bonding company will bond us for each phase of the job until its compete…But then the prime contractor is willing to do that. They asked us how we want to bid it.

7. Insurance

Several minority-owned firms were concerned about excessive insurance requirements but were also very complimentary on the City's flexibility in dealing with excessive insurance requirements on City projects.

> A lot of those times the insurance requirements, just because I do insurance, it doesn't fit that person's job. But you can't try to tell the City that, like, why do they need this type of insurance…

***

> I think that through my conversations with the City and through educating them on the barriers that are out there…. I talked with the City about the fact that you're asking for five million dollars worth of insurance on a project that is only five hundred thousand dollars. That makes no sense at all. I said in order for me to do that I'd have to have my fee three times as much. They said we didn't think about that. Next thing you know, they made adjustments to the insurance to break it down based on the project.

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> [I]f you look at the insurance requirement, I get scared…I'm not paying that much of insurance…So, for me that has been a barrier to grow…

8. Obtaining Work on Public Sector Projects

a. Prime Contracts

Most M/WBEs expressed frustration with obtaining public sector prime contracts but favored doing work in the public sector over private sector work.

> I'm going to say the African American side, I mean we're not getting the opportunity to serve as the prime in contracts with the City, whether you're a small firm or even bringing in moderate size firms. And that's one of the big shortcomings that we've encountered. You may get the opportunity to participate as a sub, but to the extent of participating in the architectural arena, you're not given much of an opportunity on that participation when you're coming in as a sub…there's a shortfall in the African American professional service people.

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> It's very difficult to do prime work with the City.

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> When it's publically funded, we can push them a little bit more to make it happen. When it's the P3 portion of the private money involved, a lot of times, they can sit back and kind of use the private money as an excuse and say we couldn't force them.

Many firms were also discouraged from pursuing prime contracts because of concerns about the commitment of the City of San Antonio to be inclusive in the contracting process.

> As of yesterday, I'm still asking who was awarded the contract. I've been given different answers, they don't know, but yet when I call the people that are marketing them, they have said yes, they selected a contractor, oh phase two, they've already bid that out, now its phase three. We, what happened to my bid for phase two?

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> A lot of times these larger contracts for commodities, the City is requiring that the winning bidder provide access to ordering through a very robust and complicated technology in an ordering system. For a small business in order to remain competitively priced and fulfill that, it's impossible.

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> And what they would do is, they find the code that these businesses have, they send emails wanting quotes on these jobs. And I've experienced this for three or four or five years. They send the email saying give us a quote. You call them, you have a question about it, and they never respond to it. They do not want to do this with you. I mean their actions prove it.

Nonminority-owned firms recognized the importance of playing a prime in City projects and the limitations of developing prime capacity for M/WBE subcontractors.

> I'm just going to use the road, road and drainage would be the last two things we'll give away, unless there's a really strong sub that's a drainage expert or something. I'm talking just a normal street kind of a thing. The important ones, you try and keep in-house, unless there's a key player in your sub-consultant group that just an expert in that or that's why you brought them on, for that particular skill. But if it's just general civil engineering work, you're giving away everything except the core, and that's not teaching the…small business, give them the experience so they can eventually become primes….

There was almost unanimous agreement among all the minority- and women-owned firms that the M/WBE Program was absolutely essential for creating opportunities. A minority construction contractor stated:

> I think without the SBEDA programs, you probably wouldn't have people in this room today, to be quite honest with you. Because if you take it away, then there's no need to encourage it, there's no need to enforce it. I know for a fact that our business, a lot of times, we prime and it's on the sub side, if there's not a requirement for it, you come into a room…and you won't get any feedback, but if it's in there, the handshakes come.

Several M/WBE owners agreed that the program opened doors and created opportunities for firms.

> And we held an outreach program in San Antonio for a design build project that we won, and some new subs came to light and got results immediately and awarded work. So we were happy to be establishing relationships and using subs here in San Antonio, and it's worked out really well.

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> We've been used on a contract before because there was a goal on it, …And then later when I guess the study came back where it said you really don't need a goal…So there's no longer the goal on the contract when it came out again…We don't detail anymore, because there's not a goal on the contract.

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> For me, professionally, the one thing the City did right for small businesses that was concrete for me was allowing the price variance of three percent going to local companies.

Nonminority contractor violations and complaints about the program often go unreported because of fear of retaliation.

> Once you go through those steps and sending emails out and contacting the City to get your money, the next project comes up, the general contractor kind of have a sore feeling on you. He might not want to use you as a sub this time.

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> [T]he City does retaliate you if you make waves. So you have to be very careful on how you handle purchasing. You go in there, you go into purchasing with a sense of walking on egg shells.

b. Subcontracts

Although M/WBEs reported that it is easier to obtain subcontracts than prime contracts on public projects, the firm also expressed a great deal of frustration with their prime-subcontractor relationships.

> And I'm in the role of a diversity consultant to a contractor, and that's one of the challenges, making them aware that the processes aren't necessarily always transparent or aren't obvious to subs, because the sub has no idea what's going on with the primes, and there's a lot of negotiation that happens, and it causes, from the onset, a lot of frustration.

MBE firms uniformly complained that minority firms were listed in the Contractor's schedule of subcontractors and were not used or dropped after the contractor won the bid.

> Yeah, you get called up and we want to use you on the good faith efforts. Sure we give all the capabilities, whatever, then you don't hear from them. Then you find out later that –just because you happen to ask, it's like, "Oh yeah, that contract got awarded, and so and so [is] working on," it's like really, and we didn't get there.

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> [T]here's the audit system that the City has. I am getting notified since November of the last year for two projects that I don't have a contract on, and now, I am required to submit

> an audit for a project that I was never given a contract. I have told the City, this company is saying they gave me a contract. That's not true.
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> ***
>
> I wasn't pulled in for an audit, but yes, the prime did use us as a minority participant to get the contract. Once we got the contract, we received no work. It was a defined scope of work. It was refrigeration work that was going to be done, walk in coolers, refrigeration units to be installed…Talked [to the City]. Said it was out of their hands, not their problem basically, that I had to force the prime to give me work...

9. Obtaining Work on Private Sector or "Non-Goals" Projects

M/WBEs providing construction services uniformly continue to find private sector prime contractor work (other than small residential and commercial projects) very difficult to obtain.

Most M/WBEs, particularly those owned by African Americans and Hispanics, are often limited to public sector projects. Minority firms in particular reported that general contractors who use them successfully and repeatedly on projects with race and gender conscious goals rarely or never involve them in private work.

> There's one way that – if our revenue was equal in the private sector as it is in the public sector, there would be no discrimination. But I do not have – our business does not have the parallel of private work that we have public work. So if there was no discrimination, I would have a balance of work coming from private and public sources.
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> They [private sector developers] don't want to fool with it. Basically, they're saying why, if I'm spending my money, why – I mean …From the private side, they're not use to being in this arena, and they don't play in this arena…just no, we're not doing that.
>
> ***
>
> If there's a private side and you're not in part of that private fraternity, you're not in the game, and there's no way to get in the game…I've been on boards and sit on boards with…and it's kind of like I'm not even recognized. So it's totally different – if you have to use us, there's a conversation...it's a total different demeanor when you go from private to public.

A nonminority architect and engineering firm acknowledged the difference in the decision making process for public versus private sector work.

> [T]he sub-consultants we're looking for, we're looking for quality, we're looking for what they do, and we want to do repeat work with them, so we all understand each other. But on non-public work, that's where we can contact our friends who aren't minority businesses, so we have the freedom in constructing a team that way.

The paucity of private sector opportunities means that some M/WBEs, despite having the capacity to take on more projects, have to cut staff when public jobs are finished because they receive no or very limited private sector work. This negatively affects their capacity to do future projects.

D. Conclusion

Consistent with other evidence reported in this Study, our interview information strongly suggests that M/WBEs continue to face discriminatory barriers to full and fair participation in both public and private sector contracts in the City of San Antonio Market Area. This evidence includes negative perceptions of M/WBEs' skills and abilities; discrimination in access to commercial loans and surety bonds; difficulties in receiving fair treatment in obtaining public sector subcontracts; abuses by primes of the payment process, and in the compliance process; and exclusion from significant private sector opportunities to perform as either prime contractors or as subcontractors. While not necessarily definitive proof, standing alone, that the City of San Antonio has a compelling interest in implementing race- and gender-conscious remedies for these barriers, the results of the surveys and the personal interviews are the types of evidence that the courts have found to be highly probative in deciding whether the City of San Antonio has been and/or continues to be a passive participant in a discriminatory market area, particularly when considered in conjunction with the numerous pieces of statistical evidence assembled and presented throughout this Study.

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VIII. City of San Antonio's Small Business Program: Overview and Feedback Interviews

This Chapter reviews the City of San Antonio's current contracting policies and procedures for Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies through its M/WBE Program, followed by a summary of business owner experiences with the Program.

A. Industries and Definitions

1. Industries

The City of San Antonio's Small Business Economic Development Advocacy ("SBEDA") Ordinance[167] offers contracting programs and incentives in the following industry categories: Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies.

2. Definitions

The following are selected definitions from the City's SBEDA Ordinance applicable to the M/WBE Program.[168]

Affirmative Procurement Initiatives (API). Refers to various S/M/WBE Program tools and solicitation incentives that are used to encourage a greater prime and subcontractor participation by S/M/WBE firms, including bonding assistance, evaluation preferences, subcontracting goals, and joint venture incentives.

Annual Aspirational Goal. A non-mandatory annual aspirational percentage goal for overall M/WBE prime and subcontractor participation in City of San Antonio contracts is established each year for Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies contract industry categories. This annual aspirational goal is to be set (and thereafter adjusted) by the Goal Setting Committee on an annual basis upon relative M/WBE availability data to be collected by the City through its centralized vendor registration system.

Centralized Vendor System. A mandatory electronic system wherein the City requires all prospective respondents and subcontractors that are ready, willing and able to sell goods or services to the City to register.

Certification. The process by which the Small Business Office staff determines a firm to be a bona-fide, small, minority- or women-owned, or emerging small business enterprise. Emerging Small Business Enterprises (ESBE) are automatically eligible for certification as SBEs. Any firm may apply for multiple certifications that cover each and every status category (e.g., SBE, ESBE, MBE, or WBE) for which it is able to satisfy eligibility standards. The SBO staff may contract

[167] SAN ANTONIO, TX., REV. ORDINANCES, Ch. 16, Art. X, § 16-251 (1993).

[168] *Id.*

these services to a regional certification agency or other entity. For purposes of certification, the City accepts any firm that is certified by local government entities and other organizations that have adopted certification standards and procedures similar to those followed by the SBO.

Emerging SBE (ESBE). A certified SBE corporation, partnership, sole proprietorship or other legal entity for the purpose of making a profit, which is independently owned and operated by individuals legally residing in, or that are citizens of, the United States or its territories, that is no more than five years old at the time of its original certification as an ESBE or whose annual revenues and number of employees are no greater than 25 percent of the small business size standards for its industry as established by the U.S. Small Business Administration, that is actively enrolled in the Mentor-Protégé Program for its industry, and meets the significant business presence requirements.

Emerging M/WBE. A certified M/WBE firm that is no more than five years old at the time of its original certification as an Emerging M/WBE that is actively enrolled in the M/WBE or SBE Mentor-Protégé Program for its industry (once established by the City), whose annual revenues and number of employees are no greater than 25 percent of the small business size standards for its industry as established by the U.S. Small Business Administration, and meets the significant business presence requirements.

Goal Setting Committee (GSC). A committee, or series of committees, appointed and chaired by the City Manager or designee from the Executive Team that includes, at a minimum, the Small Business Office Manager or designee, and the Director of the Finance Department ("Finance") or Director of the Transportation and Capital Improvement Department ("T&CI") or their designees, and the Director or designee of the Originating Department (if the Originating Department is neither Finance nor T&CI), all without duplication of designees. The City Manager or designee may also appoint two ex-officio members of the Small Business Advocacy Committee to serve on any GSC purely in an advisory and non-voting capacity. The GSC establishes S/M/WBE Program Goals for the City of San Antonio (e.g., Annual Aspirational Goals and Contract-by-Contract Subcontracting Goals) based upon Industry Categories, vendor availability and project-specific characteristics. The GSC also makes determinations about which APIs are to be applied to specific contracts based upon various criteria.

Good Faith Efforts. Documentation of a bidder's or proposer's intent to comply with SBEDA Program goals and procedures including, but not limited to, the following: (1) documentation within a solicitation response reflecting the respondent's commitment to comply with SBE or M/WBE program goals as established by the GSC for a particular contract; or (2) documentation of efforts made toward achieving the SBE or M/WBE program goals.

Minority/Women Business Enterprise (M/WBE). A firm that is certified as either a minority business enterprise or as a women business enterprise, and which is at least 51 percent owned, managed and controlled by one or more minority group members and/or women, and that is ready, willing and able to sell goods or services that are purchased by the City of San Antonio.

M/WBE Subcontracting Program. An API which prime contractors or vendors are required to make good faith efforts to subcontract a specified percentage of the value of prime contract dollars to certified M/WBE firms. Such subcontracting goals may be set and applied by the GSC

on a contract-by-contract basis to those types of contracts that provide subcontract opportunities for performing commercially useful functions wherein:

1) There have been ongoing disparities in the utilization of available M/WBE subcontractors; or

2) Race-neutral efforts have failed to eliminate persistent and significant disparities in the award of prime contracts to M/WBEs in a particular industry category or segment and subcontract opportunities are limited outside of City contracts.

When specified by the GSC, the M/WBE subcontracting program may also be required to reflect good faith efforts that a prime contractor or vendor has taken toward attainment of subcontracting goals for M/WBE firms.

Minority Business Enterprise (MBE). Any legal entity, except a joint venture, that is organized to engage in for-profit transactions, which is certified as being as least 51 percent owned, managed and controlled by one or more minority group members, and that is ready, willing and able to sell goods or services that are purchased by the City. To qualify as an MBE, the enterprise shall meet the significant business presence requirement. Unless otherwise stated, the term "MBE" as used in this chapter is not inclusive of women-owned business enterprises (WBEs).

Small Minority Women Business Enterprise Program (S/M/WBE Program). The combination of SBE Program and M/WBE Program features contained in the Ordinance.

Small Business Enterprise (SBE). A corporation, partnership, sole proprietorship or other legal entity for the purpose of making a profit, which is independently owned and operated by individuals legally residing in, or that are citizens of, the United States or its territories, and which meets the U.S. Small Business Administration (SBA) size standard for a small business in its particular industry(ies) and meets the significant business presence requirements as defined in the SBEDA Ordinance.

Small Business Office (SBO). The office within the Economic Development Department (EDD) of the City that is primarily responsible for general oversight and administration of the S/M/WBE Program.

Women Business Enterprises (WBEs). Any legal entity, except joint venture, that is organized to engage in for-profit transactions, that is certified for purposes of the Ordinance as being at least 51 percent owned, managed and controlled by one or more nonminority women individuals that are lawfully residing in, or are citizens of, the United States or its territories, that is ready, willing and able to sell goods or service that are purchased by the City and that meets the significant business presence requirements. Unless otherwise stated, the term "WBE" as used in this chapter is not inclusive of MBEs.

B. Overview

San Antonio's SBEDA Ordinance implements a combination of race-and gender-neutral and race-and gender-conscious remedies and programs to serve small, minority, and women-owned business enterprises by ensuring all businesses have an equal opportunity to compete for City contracts. San Antonio is committed to not only remedying the ongoing effects of marketplace discrimination, but also using its spending powers in a manner that promotes a robust and inclusive economy that fully utilizes all segments of its business population regardless of race or gender, so as to maximize the economic vitality and development of the San Antonio region. The City's policies under this Program are governed by Chapter 16, Article X of the San Antonio City Code, Minority and Women Business Enterprise Program.

The City originally adopted the SBEDA Program in 1989 and it has been administered by the City since that date. It was amended by the City Council in June 2010 with the changes to take effect on January 1, 2011. The Ordinance provides, "It is the policy of the City of San Antonio to take all necessary, reasonable and legal action to prevent discrimination and to ensure that all businesses are afforded the maximum practicable opportunity to participate in the City's purchasing and contracting processes."[169] The current Ordinance, as amended by Ordinance No. 100182, is based on findings of the San Antonio City Council. At least every five years, the City Council must determine whether there is a continuing need for a M/WBE Program.[170] Therefore, subsequent ordinances were enacted upon the findings in the 1992 San Antonio Consortium Study,[171] the 2009 Disparity Study,[172] the 2010 Disparity Study Update, and other relevant facts and data. The most recent studies concluded the following:

- Discrimination has affected the relevant marketplace and City in the past;
- There is evidence of ongoing effects of past discrimination in the local marketplace and in City purchases of goods and supplies;
- There is contemporary evidence of discrimination against minority- and women-owned firms in the relevant marketplace;
- There is evidence that the M/WBE opportunities for participation in City contracts are affected by discrimination in the marketplace;

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[169] *Id*.

[170] *Id.* at § 16-254 (1993).

[171] City of San Antonio, Request for Council Action, *see* https://webapps1.sanantonio.gov/agendabuilder/RFCAMemo.aspx?RId=5170 (last visited July 7, 2015); *see also* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531 (June 17, 2010), available at http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf (stating that the 1992 San Antonio Consortium Study found that there was substantial disparity in the utilization of certain segments of available M/WBE firms in all industry categories of city contracting).

[172] SAN ANTONIO, TX., ORDINANCE 2009-06-25-0601 (June 25, 2009), *available at* https://webapps1.sanantonio.gov/rfcadocs/R_5170_20090629111202.pdf.

- The evidence indicated some prime contractors that are doing business with the City discriminated against M/WBE subcontractors; and

- In some areas of City purchasing and contracting, race- and gender-neutral programs alone may be effective but, in other areas, race- and gender-neutral programs alone are not likely to be effective.

The purpose of the Ordinance is to achieve the following:

- Establish a Small/Minority/Women Business Enterprise (S/M/WBE)[173] Policy to remedy the ongoing effects of marketplace discrimination that the City has found to continually adversely affect the participation of S/M/WBEs in City contracts;

- To exercise the City's spending powers in a manner that promotes economic inclusion of all segments of the business population, regardless of race or gender;

- To provide for the phased-in implementation of all Policy elements contained within the SBEDA program; and

- To clearly communicate the City's SBEDA Policy to internal stakeholders within the City and to the external stakeholders within the broader community served by the City.

C. Procurement Reform and Non-Industry Specific Remedies

In furtherance of the policies and objectives of this Ordinance, the Small Business Division within the City's Economic Development Department facilitates small business development and growth through various programs and services.[174] The City Manager implements the procurement policy reforms and non-industry specific remedies to address the ongoing effects of discrimination that adversely affects M/WBEs' access to public and private sector contracting opportunities and further facilitates the successful enforcement of the SBEDA Program.[175]

1. Commercial Nondiscrimination Policy

It is the City's policy not to enter into a contract or be engaged in a business relationship with any business that has discriminated in the solicitation, selection, hiring or commercial treatment of vendors, suppliers, subcontractors or commercial customers.[176] The SBO implements the

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[173] *See* SAN ANTONIO, TX., ORDINANCE 100182 (Dec. 16, 2004), *available at* https://webapps1.sanantonio.gov/archivedagendas/CC02011/5y_m01!.PDF (explaining the SMWBE Program name was changed to the Small Business Economic Development Advocacy Program pursuant to Ordinance No. 85355, passed and approved on December 19, 1996).

[174] "About Us," City of San Antonio: Economic Development Department, http://sanantonio.gov/EDD/AboutUs.aspx (last visited July 14, 2015).

[175] SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 18 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[176] *Id.*

City's policy by periodically conducting outreach and distributing educational materials to the City's contracting and vendor community to advise of this policy and the procedures to be followed in submitting complaints alleging violations of the policy.[177] The City must insure that every contract and subcontract contain a nondiscrimination clause and all formal solicitations issued for City contracts require a respondent to complete a certification.[178]

2. Centralized Vendor Registration

The City established an electronic Centralized Vendor Registration ("CVR") system that allows vendors to electronically enter, maintain and update its vendor registration and profile data.[179] Every vendor that seeks to respond to City solicitations, receive a contract award, or receive payment is required to register through the CVR system.[180] The City will use the CVR system for electronic outreach purposes and send alerts of upcoming solicitation opportunities.[181] The CVR system also will provide users the ability to identify prospective respondents, subcontractors, and vendors that are ready, willing and able to sell specific types of goods or services.[182]

3. Solicitation Specification Review

Formal solicitations issued by the City must be referred to the SBO and the Director of Finance of the Director of T&CI before publication to determine whether it contains any specifications that may restrict competition or adversely impact the ability of S/M/WBEs to respond or participate as subcontractors.[183] If such specifications are identified, a consensus must be reached in developing a modification to the specification.[184] However, if a consensus cannot be reached, the City Manager makes the final determination regarding the modified specification.[185]

4. Respondent De-briefings

For any contract in which the City undertakes a formal solicitation and subsequent response evaluation, the Director of the department issuing the solicitation must provide a de-briefing to any non-recommended respondent.[186] De-briefings include disclosures of scoring criteria and

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[177] *Id.* at 19.

[178] *Id*.

[179] *Id* at 20.

[180] *Id*.

[181] *Id*.

[182] *Id*.

[183] *Id* at 21.

[184] *Id*.

[185] *Id*.

[186] *Id*.

scores from the evaluation panel for making the selection.[187] The de-briefing should also identify areas and give explanations where the respondent's submittal was not as competitive as others.[188]

D. Industry-Specific Procurement Initiatives

The City's APIs are tools and solicitation incentives that are used to encourage greater prime and subcontract participation by S/M/WBE firms.[189] The City offers race-neutral and race-conscious contracting programs in the categories of Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies. The GSC, established by the City Manager, has the responsibility of evaluating the categories of informal solicitations and each prospective formal solicitation document prior to posting a public advertisement to determine which of the following APIs it should apply to the specific contract.[190]

1. Prime Contract Program

The City has a Prime Contract Program for race-neutral Construction contracts less than $10 million in value, as well as Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies contracts.[191] The City also has a Prime Contractor Program for race-conscious Architecture & Engineering and Professional Services contracts with an initial aspirational goal of 34 percent and 45 percent, respectively, which the City adjusts annually.[192]

In determining whether this program should be applied, the GSC considers: (1) whether there are at least three S/M/WBEs available and capable to perform as prime contractors; and (2) the degree of underutilization of the S/M/WBE prime contractor in the specific industry.[193] Each construction contractor that participates in this program must also be enrolled in the Mentor-Protégé Program.[194] The GSC may allocate up to 20 percent of the evaluation criteria in favor of the selection of a certified S/M/WBE respondent.[195] An S/M/WBE prime contractor that is awarded the prime contract may not subcontract more than 49 percent of the contract value to a non-S/M/WBE firm.[196]

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[187] *Id*.

[188] *Id*.

[189] *Supra* note 175, at 10.

[190] *Id.* at 21.

[191] Videotape: "SBEDA Prime Contractor Program" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[192] *Id.*; *see* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 34 and 38 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[193] *Supra* note 175, at 22, 33, 35, 37 42, and 49.

[194] *Id.* at 22.

[195] *Supra* note 191; *see* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 22, 33, 35, 37, 42, and 49 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[196] *Id.*

2. Emerging Prime Contract Program

The City has an Emerging S/M/WBE Prime Contract Program for race-neutral Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies contracts less than $250,000 in value.[197] The City also has a race-conscious Program for construction contracts less than $250,000 in value with an initial aspirational goal of 29 percent, which the City adjusts annually.[198] In determining whether a contract is eligible for this program, the GSC must consider: (1) the availability of at least three emerging S/M/WBEs to participate in this prime contract; and (2) the degree of underutilization of emerging S/M/WBEs in the specific industry.[199] Similar to the Prime Contract Program, each construction contractor that participates in this program must also be enrolled in the Mentor-Protégé Program.[200] The GSC may allocate up to 20 percent of evaluation criteria in favor of the selection of a certified emerging S/M/WBE respondent.[201] An emerging S/M/WBE that is awarded the prime contract may not subcontract more than 49 percent of the contract value to non-emerging S/M/WBE firms.[202]

3. Subcontracting Program

The City's Subcontracting Program is available as a race-neutral and race-conscious tool for Construction, Professional Services, and Other Services contracts valued at or above $500,000.[203] The Program is available as a race-neutral vehicle for Architecture & Engineering contracts.[204] The initial aspiration goals for the race-conscious Construction, Professional Services, and Other Services contracts are 29 percent, 45 percent, and 30 percent, respectively, which the City adjusts annually.[205] The GSC may require a contract-specific subcontracting goal of up to 40 percent be subcontracted to eligible S/M/WBEs.[206] The GSC must consider the availability of S/M/WBE firms to perform commercially useful functions on the specific contract when determining whether a contract is eligible for this program.[207]

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[197] Videotape: "SBEDA Emerging Prime Contractor Program" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[198] *Supra* note 175, at 31.

[199] *Id.* at 22, 31, 33, 37, and 42.

[200] *Id.* at 22, 31.

[201] *Supra* note 197; *see* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 22, 31, 33, 37, and 42 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[202] *Id.*

[203] Videotape: "SBEDA Subcontracting Program" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[204] *Id.*

[205] Supra note 175, at 28, 38, and 45.

[206] *Id.* at 22, 28, 32, 35, 38, 43, and 47.

[207] *Id.*

A prospective respondent for which price and scope are defined within the City solicitation must submit required documentation at the time of its response.[208] When the City's solicitation price and scope are not defined, the respondent must submit the documentation and also affirm its intent to meet the subcontracting requirements.[209] However, if a respondent fails to commit to satisfying the S/M/WBE subcontracting goals, its response is deemed non-responsive.[210]

A respondent may request a full or partial waiver of the subcontracting requirement for cause by submitting the appropriate documentation to the SBO with the bid/proposal response.[211] The waiver will not be granted without the SBO's careful consideration of numerous factors and the respondent making a good faith effort in complying with the subcontracting requirements.[212]

A prime contractor must receive the SBO's advance approval before reducing the subcontracting scope, unless the reduction is City-mandated.[213] In the absence of a waiver, the failure of a prime contractor to comply with the subcontracting requirements is considered a material breach of the contract, grounds for termination of the contract, and may result in debarment from participating in future City contracts.[214]

Upon award of a construction contract, the prime contractor must provide progress payment information and comply with the Prompt Payment Act.[215] The SBO audits the payments made to S/M/WBE and non-S/M/WBE subcontractors.[216] If a prime contractor fails to pay the subcontractors or comply with the Prompt Payment Act, it will not receive its final payment or be issued any new City contracts until the audit is completed and payments are made.[217]

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[208] *Id.* at 22, 28-9, 32, 35, 39, 43-4, and 47. Respondents are required to submit: (1) The names of subcontractors they intend to use; (2) The percentage of prime contract dollars and the projected absolute dollar value of subcontracting services to be provided by each S/M/WBE; (3) A description of the work that each S/M/WBE subcontractor will perform; and (4) Documentation confirming the subcontractor's commitment to perform the work.

[209] *Id.* at 22, 28-9, 32, 35, 39, 43-4, and 47.

[210] *Id.*

[211] *Id.* at 23, 29-30, 33, 36, 39, 44, and 47-8.

[212] *Id.*; The SBO considers the following factors in making a determination of a waiver request: (1) Whether the requestor of the waiver has made good faith efforts to subcontract with qualified and available S/M/WBEs; (2) Whether subcontracting would be inappropriate or not provide a commercially useful function under the scope of the contract; and (3) Whether there are no certified S/M/WBEs that are qualified and available to provide the goods or services required.

[213] *Id.* at 23-4, 30, 33, 36, 39, 44, and 48.

[214] *Id.* at 23-4, 30, 33, 36, 39, 44, and 48.

[215] *Id.* at 24, 30; *see also* TEX. GOV'T CODE ANN. § 2251 (2007) (stating the rules that a prime contractor must comply with when paying its subcontractors).

[216] *Supra* note 175, at 24, 30.

[217] *Id.*

4. HUBZone Program

The City's HUBZone Program is only available as a race-neutral tool for construction contracts less than $750,000 in value.[218] In determining whether a contract is eligible for this program, the GSC must consider: (1) Whether there are at least three HUBZone firms that are available and capable of performing the prime contract; and (2) The degree of underutilization of HUBZone firms in the construction industry.[219] The GSC may apply up to 20 percent of the evaluation criteria in favor of the selection of a certified HUBZone prime respondent and prohibits a SBE prime contractor from subcontracting more than 49 percent of the contract value to non-SBE firms.[220]

Additionally, the GSC may require a contract-specific subcontracting goal of up to 40 percent be subcontracted to certified HUBZone firms while taking into consideration the availability of HUBZone firms to perform commercially useful functions within the contract.[221] A prospective respondent for which price and scope are defined within the City solicitation must submit required documentation at the time of its response.[222] When the City's solicitation price and scope are not defined, the respondent must submit the documentation and also affirm its intent to meet the HUBZone subcontracting requirements. However, if a respondent fails to commit to satisfying the HUBZone subcontracting goals, its response is deemed non-responsive.[223]

A respondent may request a full or partial waiver of the subcontracting requirement for cause by submitting the appropriate documentation to the SBO with the bid/proposal response.[224] The waiver will not be granted without the SBO's careful consideration of numerous factors and the respondent making a good faith effort in complying with the subcontracting requirements.[225]

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[218] Videotape: "SBEDA HUBZone" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[219] *Supra* note 175, at 24.

[220] *Supra* note 218; *see* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 24 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[221] *Id.*

[222] *Supra* note 175, at 24-5. Respondents are required to submit: (1) The names of the HUBZone subcontractors it intends to use; (2) The percentage of prime contract dollars and the projected absolute dollar value of subcontracting services to be provided by each HUBZone subcontractor; (3) A description of the work that each HUBZone subcontractor will perform; and (4) Documentation confirming the HUBZone subcontractor's commitment to perform the work.

[223] *Id.* at 25.

[224] *Id.*

[225] *Id.* The SBO considers the following factors in making a determination of a waiver request: (1) Whether the requestor of the waiver has made good faith efforts to subcontract with qualified and available SBEs; (2) Whether subcontracting would be inappropriate or not provide a commercially useful function under the scope of the contract; and (3) Whether there are no certified SBEs that are qualified and available to provide the goods or services required.

A prime contractor must receive the SBO's advance approval before reducing the subcontracting scope, unless the reduction is City-mandated.[226] In the absence of a waiver, the failure of a prime contractor to comply with the HUBZone subcontracting requirements is considered a material breach of the contract, grounds for termination of the contract, and may result in debarment from participating in future City contracts.[227]

Upon award of a contract, the prime contractor must provide progress payment information and comply with the Prompt Payment Act.[228] The SBO audits the payments made to HUBZone and non-HUBZone subcontractors.[229] If a prime contractor fails to pay the HUBZone subcontractors or comply with the Prompt Payment Act, it will not receive its final payment or be issued any new City contracts until the audit is completed and payments are made.[230]

5. Joint Venture Incentive Program

The City's Joint Venture Incentive Program is available as a race-neutral and race-conscious tool for Professional Services and Goods & Supplies contracts valued in excess of $500,000.[231] The Program is also available as a race-neutral mechanism for Other Services contracts valued in excess of $500,000.[232] The initial aspiration goals for the race-conscious Professional Services and Goods & Supplies contracts are 45 percent and 23 percent, respectively, which the City adjusts annually.[233] The GSC should consider the relative availability of S/M/WBE firms to perform the commercially useful functions in the contract when selecting this API.[234]

For race-neutral and race-conscious Professional Services contracts, the GSC may allocate up to 20 percent of the evaluation criteria in favor of a S/M/WBE respondent that is a joint venture partnership.[235] Points are awarded based on the small, minority- or women-owned business participation level within the joint venture partnership.[236] However, for race-neutral and race-conscious Other Services and Goods & Supplies contracts, the GSC may require S/M/WBE joint venture partners to be responsible for supplying no less than 40 percent of the total value of the contract.[237] Similar to the other programs, prospective S/M/WBE joint venture respondents must

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[226] *Id.* at 25-6.

[227] *Id.*

[228] *Id.* at 26; *see also* TEX. GOV'T CODE ANN. § 2251 (2007) (stating the rules that a prime contractor must comply with when paying its subcontractors).

[229] *Supra* note 175, at 26.

[230] *Id.*

[231] Videotape: "SBEDA Joint Venture Program" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[232] *Id.*

[233] *Supra* note 175, at 34, 51.

[234] *Id.* at 37, 40, 43, 49, and 51.

[235] *Supra* note 231; *see* SAN ANTONIO, TX, ORDINANCE 2010-06-17-0531, 36 and 40 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[236] *Supra* note 175, at 36, 40.

[237] *Id.* at 43, 49, and 51.

submit required documentation within its proposal or response.[238] Ultimately, this Program allows the GSC to provide incentives for non-certified firms to partner with small, minority-, or women-owned firms when responding to the solicitation.[239]

6. Segmented S/M/WBE Goals

Segmented S/M/WBE goals is the application of multiple goals for S/M/WBE participation within the annual aspirational goals or for S/M/WBE subcontracting goals on an individual City contract wherein an overall combined S/M/WBE goal is accompanied by subsets of one or more smaller goals.[240] These segmented goals specifically target the participation of a particular segment of business enterprises based upon relative availability.[241] The goals are intended to ensure that those segments of S/M/WBEs that have been most underutilized receive a fair measure of remedial assistance.[242]

Segmented goals are used as a race-conscious tool in the Construction, Professional Services, and Other Services industries.[243] For Construction contracts, the GSC may establish segmented goals for construction subcontracting for African American and Asian-American Business Enterprises.[244] For Professional Services, Other Services, and prime Construction contracts, the GSC may establish goals for African American, Asian American, Native American, and Women Business Enterprises.[245]

7. Tax Increment Finance Economic Development Projects

In 1998, the City began utilizing Tax Increment Financing ("TIF") to encourage development in areas (called the Tax Increment Reinvestment Zone) where it is desired, but is not being provided by traditional market mechanisms or other City incentives.[246] TIF is a form of public finance used to fund real estate/community development projects and infrastructure

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[238] *Id.* at 36, 40, 43, 49, and 51. Joint venture respondents are required to submit the following: (1) The names of the S/M/WBE joint venture partners that will participate on the project; (2) The percentage of prime contract dollars and the absolute dollar value of the services to be provided by the S/M/WBE joint venture partners; and (3) A description of the work that each S/M/WBE joint venture partner will be responsible for performing under the terms of the joint venture agreement.

[239] *Supra* note 231.

[240] *Supra* note 175, at 16.

[241] *Id.* at 30, 41, and 46.

[242] *Supra* note 175, at 16.

[243] Videotape: SBEDA SEGMENTED SUBCONTRACTING AND TAX INCREMENT FINANCE (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[244] *Supra* note 175, at 30.

[245] *Id*. at 31, 41, and 46-7.

[246] "About TIF," City of San Antonio: Department of Planning & Community Development, *available at* http://www.sanantonio.gov/Planning/TIF.aspx (last visited July 14, 2015); *see also* "City of San Antonio Tax Increment Financing (TIF) Program Policy" (May 14, 2015), *available at* http://www.sanantonio.gov/Portals/0/Files/Planning/TIF/20150514-Approved_TIF_Program_Policy.pdf (describing further San Antonio's TIF policies).

improvements in which the City raises funds based upon projected future increased tax revenues that are to be paid over time by the property owners located within a certain geographic area that are the beneficiaries of the publicly-financed improvements.[247]

The GSC may impose any S/M/WBE race-conscious participation requirements and APIs for any City construction or economic development project that is financed through TIF.[248] If a developer fails to comply with the participation and API requirements, it will lose all or part of its TIF provided by the City.[249]

8. Bonding Assistance Program

The SBO Manager was authorized to establish a workgroup to research "best practices" in bonding assistance program models and recommend to the City Manager a formation of a program.[250] The elements the workgroup considered when forming this program can be assessed further at the following website:

> http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.[251]

The program was implemented in late 2011 as a race-neutral tool for contracting categories in the Construction, Other Services, and Goods & Supplies industries.[252] The program is designed to help small businesses build or repair their credit to become bondable.[253] Ultimately, this will increase the business' potential of being awarded City contracts.[254] The program offers business education classes and a Small Business Boot Camp where small businesses can receive strategic training in building their businesses.[255]

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[247] *Supra* note 175, at 18.

[248] *Supra* note 246.

[249] *Supra* note 175, at 30.

[250] *Id.* at 26-7, 44, and 48.

[251] Id. at 26-7, 44, and 48.

[252] Videotape: "SBEDA Three Additional APIs" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[253] "Bonding Assistance Program," City of San Antonio: EDD-Small Business Development, http://sanantonio.gov/SBO/GrowSmallBusiness/ServicePrograms/BondingAssistanceProgram.aspx (last visited July 14, 2015).

[254] "Be Bonded: Boost Your Credit to Win Contracts," *BE San Antonio*, https://besanantonio.com/bonding-assistance/ (last visited July 14, 2015).

[255] *Id.*; *see also* "Enroll in the Small Business Boot Camp," *BE San Antonio*, https://besanantonio.com/small-business-boot-camp/ (last visited July 14, 2015) (explaining further the Small Business Boot Camp).

9. Mentor-Protégé Program

The SBO Manager was directed to create a workgroup to research "best practices" in Mentor-Protégé Program models and recommend to the City Manager an establishment of a program.[256] The elements the workgroup considered when implementing this program can be seen at the following website:

> http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.[257]

The program was implemented in late 2011 as a race-neutral and race-conscious mechanism for Construction, Other Services, and Goods & Supplies contracts, but only available as a race-conscious tool for Professional Services contracts.[258] The program is designed to promote local economic growth and development by providing small start-ups the assistance of a mentor.[259] Mentors are encouraged to give back to the community by giving guidance, advice, and tips on successful business practices to their protégés in order for them to grow their small businesses.[260] Additionally, similar to the Bonding Assistance Program, the program offers business education classes and a Small Business Boot Camp where small businesses can receive strategic training in building their businesses.[261]

E. SBEDA Program Administration

1. Small Business Office

The SBO is administered and managed by the SBO Manager, who reports to the Economic Development Department ("EDD"), and who addresses any S/M/WBE issues at City Council agenda meetings.[262] The SBO is responsible for the overall administration of the City's SBEDA program.[263] The SBO has numerous duties, including, but not limited to:

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[256] *Supra* note 175, at 27, 31, 42-3, 46, 48, and 52.

[257] *Id.* at 27, 31, 42-3, 46, 48, and 52.

[258] *Supra* note 252.

[259] "Mentor Protégé Program," City of San Antonio: EDD-Small Business Development, http://www.sanantonio.gov/SBO/GrowSmallBusiness/ServicePrograms/MentorProtegeProgram.aspx (last visited July 14, 2015).

[260] "Be a Mentor," *BE San Antonio*, http://www.besanantonio.com.php53-4.dfw1-2.websitetestlink.com/mentor/ (last visited July 14, 2015).

[261] "Be a Protégé," *BE San Antonio*, https://besanantonio.com/protege/ (last visited July 14, 2015); *see also* "Enroll in the Small Business Boot Camp," *BE San Antonio*, https://besanantonio.com/small-business-boot-camp/ (last visited July 14, 2015) (explaining further the Small Business Boot Camp).

[262] *Supra* note 175, at 52.

[263] *Id.*

- Report to the City and the public, based on available data, on at least an annual basis as to the City's progress toward satisfying the SBEDA Program purposes and policy objectives;
- Formulate, establish, distribute and implement additional forms, rules and procedures for SBEDA Program waivers, improvements and adjustments to the goal-setting and other Program features;
- Receive and analyze external and internal information;
- Develop, maintain and distribute directories of certified SBEs, ESBEs, and M/WBEs;
- Oversee the maintenance of an accurate contract performance reporting system; and
- Provide staff support for the Small Business Advocacy Committee and the Goal Setting Committee.[264]

The SBO Manager monitors the implementation and progress of the SBEDA Program.[265] On an annual basis, the SBO Manager reports to City Council on the implementation and progress on achieving the goals and objectives of the SBEDA Program, including the achievement of contract participation goals for SBEs and M/WBEs by ethnicity and gender of ownership, industry, location and API.[266] The SBO also issues an annual written report to contractors summarizing contract awards and payments for each category.[267] The written report also addresses SBEDA Program objectives and contains any recommendations for modifications, suspensions or terminations of any portion of the Ordinance.[268]

2. Small Business Advocacy Committee

The Small Business Advocacy Committee (the "SBAC") is a citizens' committee made up of trade groups and members of the general business community.[269] The SBAC consists of 11 members appointed by the Mayor and City Council for two-year terms.[270] The SBAC was established to function as only an advisory group by:

- Assisting the Director of EDD, the City Manager, and City Council in reviewing the continuing programs for contractors and subcontractors that promote S/M/WBE participation;

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[264] *Id.* at 52-3.

[265] *Id.* at 60.

[266] *Id.*

[267] *Id.*

[268] *Id.* at 61.

[269] *Id.* at 64.

[270] *Id.* at 65.

- Coordinating activities and actions with the City Council Economic and Community Development Committee (the "ECDC"); and

- Making recommendations to the Director of EDD, the City Manager, and City Council concerning modifications of programs and procedures.[271]

Recently, in 2014, the SBAC established three subcommittees, including: (1) Disparity Study Subcommittee; (2) Diversity Action Plan Subcommittee; and (3) Marketing Subcommittee.[272] The subcommittees are intended to focus on the SBAC's important initiatives under the supervision of the Committee.[273]

3. Goal Setting Committee

The Goal Setting Committee (the "GSC") establishes SBEDA Program goals based on industry categories, vendor availability, and project-specific characteristics, and makes determinations about which APIs are to be applied to specific contracts based upon various criteria.[274] The GSC must adhere to the following:

- Meet as often as it deems necessary to accomplish its duties, but not less than monthly;

- Formulate, recommend to the City Manager, and implement additional rules and procedures for SBEDA Program goal-setting in selecting and applying specific APIs to City solicitations and contracts in an effective manner; and

- Monitor and support the implementation of the SBEDA Program.[275]

The GSC is appointed and chaired by the City Manager, or her designee. The GSC includes the Director of the SBO (or their designee), the Director of Finance (or their designee) or the Director of T&CI (or their designee), and the Director of the City Originating Department whose contracts are under consideration by the GSC (or their designee).[276] The City Council may also appoint two citizen members to serve on the GSC for one year terms, receive no compensation,

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[271] *Id.* at 64-5.

[272] "Small Business Advocacy Committee (SBAC)," City of San Antonio: EDD-Small Business Development, http://www.sanantonio.gov/SBO/SmallBusinessAdvocacyCommittee.aspx (last visited July 14, 2015).

[273] *Id.*

[274] *Supra* note 175, at 53.

[275] *Id.* at 54.

[276] SAN ANTONIO, TX., ORDINANCE 2011-04-14-0303 (Apr. 14, 2011), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202011-04-13-0303.pdf.

and only vote on contracts valued at $3 million and above.[277] GSC citizen members must report on the goal-setting process to the SBAC, who in turn will report to the City Council.[278]

4. Annual Aspirational Goals

The GSC creates non-mandatory percentage goals for overall M/WBE prime and subcontract participation for each major contracting category in the City.[279] Annual Aspirational Goals ("AAGs") are to be established each fiscal year for Construction, Architecture & Engineering, Professional Services, Other Services and Goods & Supplies contracts.[280] The AAGs are based upon the combined M/WBE availability by industry and adjusted by the City on an annual basis based upon the relative M/WBE availability data collected by the City through its CVR System.[281] AAGs are intended to serve as a benchmark against which to measure the overall effectiveness of the SBEDA Program on an annual basis, and to gauge the need for future adjustments.[282]

5. Contract-by-Contract Subcontracting Goal-Setting

The GSC also establishes subcontracting goals implemented only on a contract-by-contract basis.[283] The goal-setting is based on careful analysis of the availability of commercially useful subcontracting opportunities within a given contract and the relative availability of S/M/WBE firms to perform the required tasks stated within the subcontract.[284]

6. Certification

The SBO is responsible for developing, issuing and reviewing all SBE, ESBE, M/WBE and Emerging M/WBE certification and re-certification forms and applications.[285] A business seeking certification or re-certification status must cooperate with the City in supplying additional information and in facilitating a site visit of the business which may be requested in order to make a determination.[286] The SBO must also maintain an automated and up-to-date registry of all certified SBE, ESBE, M/WBE, and Emerging M/WBE firms that are readily

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[277] *Id.*; *see also* SAN ANTONIO, TX, ORDINANCE 2010-09-02-0756 (Sept. 2, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-09-02-0756.pdf (amending Ordinance No. 2010-06-17-0531 in that the two citizen members do not have to SBAC members).

[278] SAN ANTONIO, TX, ORDINANCE 2010-06-17-053, 53 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[279] *Id.* at 54.

[280] *Id.*

[281] *Id.*

[282] *Id.*

[283] *Id.* at 54.

[284] *Id.*

[285] *Id.* at 55.

[286] *Id.* at 56.

available to the general public.[287] All businesses must be registered with the San Antonio Electronic Procurement System ("SAePS") which serves as the City's CVR.[288] Registration is free and can easily be done online utilizing a two-step process.[289] First, a firm must complete and submit the vendor pre-registration form, and the firm will receive a confirmation email.[290] Second, the firm will receive another email within two business days with their user ID and password which will allow the firm to access the SAePS Portal to complete the registration process.[291]

In addition to registering, firms must be certified with South Central Texas Regional Certification Agency ("SCTRCA").[292] Certification as a small business enterprise is required to receive the benefits of industry-specific race-neutral tools.[293] Firms certified as small, minority, or women-owned business enterprises are eligible to receive the benefits of race-conscious tools as well.[294]

a. Firm Eligibility

i. Eligible Groups

MBEs and WBEs must be at least 51 percent owned and controlled by a minority or women individual(s), the minority or women owner(s) must be a United States citizen or a lawfully admitted permanent resident of the United States, and the firm must be organized as a for-profit business.[295]

The SCTRCA recognizes members of the following groups for certification purposes: (1) Black Americans; (2) Hispanic Americans; (3) Native Americans; (4) Asian Pacific Americans; and (5) Asian Indian Americans.[296]

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[287] *Id.* at 55.

[288] Videotape: "SBEDA Eligibility" (Alejandra Lopez, Economic Development Manager 2013) (on file at https://www.youtube.com/watch?v=B-Qz1yILuQ8).

[289] *Id.*

[290] "Vendor Registration Guide," City of San Antonio: Finance Department, Purchasing Division 3-5, *available at* http://www.sanantonio.gov/Portals/0/Files/Purchasing/pdf/vendor-registration.pdf. (last visited July 8, 2015).

[291] *Id.* at 7-17.

[292] *Supra*, note 288; *see* The South Central Texas Regional Certification Agency, *available at* http://www.sctrca.org/default.asp (last visited July 8, 2015). SCTRCA's mission is to increase participation of minority-, disabled-, veteran- and women-owned business enterprises in their pursuit of contracting and procurement opportunities by providing centralized certification services.

[293] *Supra*, note 288.

[294] *Id.*

[295] "Certifications," The South Central Texas Regional Certification Agency, *available at* http://www.sctrca.org/certifications.asp (last visited July 8, 2015).

[296] *Id.*

ii. Business Location

Firms must be locally headquartered or demonstrate a significant business in the San Antonio Metropolitan Statistical Area ("SAMSA"), including Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, and Wilson counties.[297]

Firms demonstrate a signification business presence within SAMSA by maintaining an office for at least one year from which 20 percent of its full-time, part-time, and contract employees are regularly based and from which a substantial role in the S/M/WBEs performance of a commercially useful function is conducted.[298] However, a location utilized solely as a post office box, mail drop or telephone message center or any combination thereof, with no other substantial work function, cannot be construed to constitute a significant business purpose.[299]

iii. Business Size

SBEs and ESBEs must not exceed the Small Business Administration's ("SBA") size standards and SBEs eligible for business whose annual revenues and number of employees are no greater than 25 percent of the SBA's size standard is eligible for ESBE certification.[300]

iv. General Business Criteria

The business must be an independently owned and operated business.[301] The ownership and control by minority or women owners must be real and substantial, and indicated by customary incidents of ownership as demonstrated by an examination of the substance, rather than the form, of ownership and operating agreements.[302]

The minority or women owners must possess and exercise the power to direct the management and policies of the firm and to make day-to-day decisions, as well as any decisions on management, policy and operations.[303] The business must not be subject to any formal or informal restrictions that limit the customary discretion of the owner(s).[304] There may not be any

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[297] *Supra*, note 288; *see also* SAN ANTONIO, TX, ORDINANCE 2010-06-17-053, 16 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf (giving the definition of "San Antonio Metropolitan Statistical Area").

[298] *Id.*

[299] *Supra*, note 288.

[300] *Supra*, note 295.

[301] SAN ANTONIO, TX, ORDINANCE 2010-06-17-053, 55 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[302] *Id.*

[303] *Id.*

[304] *Id.*

restriction that prevents the minority or women owners from making business decisions of the firm without the cooperation or vote of any owner that is not minority or female.[305]

Once certified, an SBE, ESBE, M/WBE and/or Emerging M/WBE business must update its status biennially by submitting a certification affidavit.[306] If ownership or control of the business has changed, the business must submit a new certification affidavit to the SBO, or its contracted certification agency within 30 days of the change.[307] The certifying entity will notify the business of its determinations on certification and re-certification.[308]

b. Certification Denial and Complaints

Once a business is denied certification, the business may not re-apply for certification until the time indicated in the certification entity's policy.[309]

Complaints regarding the certification status of a business must be forwarded to the SBO for investigation of any possible violations.[310]

7. Graduation and Suspension

The SBO must adhere to the extensive list of guidelines set forth in the Ordinance.[311] It will graduate, suspend or terminate an SBE, ESBE, M/WBE or Emerging M/WBE from the SBEDA Program if the firm no longer is eligible for the Program's assistance or qualifies for its remedial benefits.[312] The SBO has the responsibility for monitoring and conducting periodic reviews of the size, City contract participation levels and conduct of all certified SBEs, ESBEs, M/WBEs and Emerging M/WBEs to determine when they should be graduated, suspended or terminated from the respective programs.[313] Once the certified business is graduated, suspended or terminated, the SBO must also ensure that the directory accurately and timely reflects the change.[314]

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[305] *Id.*

[306] *Id.* at 57.

[307] *Id.*

[308] *Id.*

[309] *Id.*

[310] *Id.*

[311] *Id.*

[312] *Id.*

[313] *Id.*

[314] *Id.*

8. Originating Department

The Originating Department is also charged with responsibilities and duties under the Ordinance. The Originating Department is the City department which issues solicitations or for which a solicitation is issued.[315] It has the responsibility of ensuring that solicitations emanating from the department adhere to the Program's provisions and maintaining an accurate record of each contract awarded.[316] The Originating Department Director has the primary responsibility for achieving the SBEDA Program's objectives within the Originating Department and reviews the Program's operations to assure that the purpose is being achieved.[317] Additionally, the Ordinance sets forth a lengthy list of actions that the Originating Department must take to ensure that S/M/WBEs have the maximum practicable opportunity to participate on City contracts, including:

- Advertising formal solicitations in minority-targeted media;
- Post all formal solicitations on the City website;
- Encourage all prospective prime contract respondents to City solicitations to post their subcontract opportunities on the City webpage;
- Send notification before solicitations are due to minority and women trade associations regarding pending formal solicitations;
- Include the Commercial Non-Discrimination Policy statement in all contracts and solicitation documents;
- Preview and evaluate all contracting opportunities;
- Establish procedures to ensure that all contractors submitting correct invoices are paid within thirty days and subcontractors are paid within ten days after the City pays the prime contractor;
- Ensure that a City contract is not executed and a Notice to Proceed is not issued until binding agreements between the prime and subcontracting S/M/WBEs have been executed and submitted to the Originating Department;
- Ensure that all required statistics and documentation are submitted to the SBO as requested; and

[315] *Id.* at 15.

[316] *Id.* at 62.

[317] *Id.*

- Notify the SBO Manager of all change orders and amendments to contracts and take necessary steps that APIs applied to the contract by the GSC are also extended and enforced.[318]

9. Small Business Office's Compliance Responsibilities

The SBO monitors the contractor's compliance with Program requirements during the term of the contract. The SBO Manager and Originating Department work closely with the City Attorney's Office to include language in City contracts that ensures compliance with the SBEDA Program, including a time period for the contractor to correct deficiencies.[319]

If a prime contractor or subcontractor fails to comply with the requirements, the SBO manager must notify the Originating Department and the contractor.[320] Within 15 days after notice of noncompliance, the Director of EDD may require information from contractors, respondents and the City department to determine compliance with the Program requirements.[321] If the information is not received within 15 days, then the contractor is found to be in noncompliance, and appropriate penalties and sanctions will apply.[322] If the information is received within the 15 days, the Director of EDD and the Originating Department have the responsibility of resolving the noncompliance with the Program requirements within an additional 15 days.[323] If noncompliance cannot be resolved within those 15 days, the Director of EDD or Director of the Originating Department must submit written recommendations to the City Manager, and if the City Manager concurs with the finding, sanctions will be imposed on the contractor.[324]

Also, when the Director of EDD finds, after investigation, that an Originating Department has failed to comply with provisions, a written finding specifying the noncompliance is transmitted to the Originating Department and the Director of EDD must attempt to resolve the noncompliance through conference and conciliation.[325] Should they fail to resolve the noncompliance, the Director of EDD will convey a copy of the noncompliance finding, with a statement that conciliation was attempted, but failed, to the City Manager who must take appropriate action to secure compliance.[326]

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[318] *Id.* at 62-3.

[319] SAN ANTONIO, TX, ORDINANCE 2010-06-17-053, 59 (June 17, 2010), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202010-06-17-0531.pdf.

[320] *Id.*

[321] *Id.*

[322] *Id.*

[323] *Id.*

[324] *Id.*

[325] *Id.*

[326] *Id.*

The Director of EDD, through the City Manager, must submit a written annual report to the SBAC and City Council on the City's progress toward the utilization goals along with problems and specific recommendations for improving the City's performance.[327]

10. Vendor Responsibility

A vendor must assist the SBO in conducting its responsibilities in administering the SBEDA Program elements by doing the following:

- Permit the SBO to inspect any relevant matter and interview subcontractors and workers for field compliance;
- If performing a City construction contract, ensure all subcontractors are paid any undisputed amount they are entitled to within 10 days of receiving the City's progress or final payment;
- Notify the City in writing of any changes to their utilization and/or subcontracting plan which must be approved by the SBO;
- If after submitting a solicitation response and before execution of a contract, the successful respondent determines that a certified SBE or M/WBE has become unavailable, then the respondent must notify the SBO;
- Notify the Originating Department and SBO of transfer or assignment of contract with the City; and
- Retain record of all subcontractor payments for at least four years following project termination date.[328]

11. Exception and Waivers

If a respondent is unable to comply with the API requirements imposed by the GSC, the respondent must submit a waiver request, including documentation demonstrating a good faith effort to comply with the requirements, at the time it submits its response.[329] If, after award of the contract, the contractor is unable to meet the participation requirements for S/M/WBEs, the contractor must seek substitute S/M/WBEs to fulfill the requirements.[330] However, if the

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[327] *Id.*

[328] *Id.* at 60.

[329] SAN ANTONIO, TX., ORDINANCE 2011-04-14-0303 (Apr. 14, 2011), *available at* http://www.sanantonio.gov/Portals/0/Files/SBO/SBEDA%20Ordinance%202011-04-13-0303.pdf. The criteria that may be considered in evaluating a vendor's exception request is whether: (1) the value of the associated contract is below the $5,000 threshold for application of the SBEDA Program; (2) no commercially-useful subcontracting opportunity exists within the contract; or (3) the type of contract is beyond the scope of the SBEDA Ordinance.

[330] *Supra* note 175, at 61.

contractor is unable to find a substitute after making a reasonable good faith effort, the contractor may request a post-award waiver documenting the reasons for the contractor's inability to meet goal requirements.[331] In the event the contractor does not perform good faith efforts in attempting to find a substitute, the City may terminate the contract for material breach and award the contract to the next lowest respondent or re-solicit the contract with the terminated vendor being disqualified from participating in the re-solicitation process.[332]

Additionally, prior to submission of a prospective solicitation to the GSC and the public release of the solicitation, the Originating Department may request, in writing, the Director of EDD to waive or modify the application of API requirements for S/M/WBE participation.[333] The Director of EDD may grant the waiver or modification after making careful consideration of several factors, otherwise, the solicitation is forwarded to the GSC for review and application of APIs.[334] Further, the GSC may waive the application of APIs to enhance S/M/WBE utilization for a specific contract, but final approval is made by the City Manager.[335]

12. Penalties and Sanctions

The Ordinance sets forth sanctions determined and recommended by the City Manager if a contractor, vendor, respondent, or other business representative fails to comply with the SBEDA Program.[336] The non-complying party may be subject to any or all of the following penalties:

- Suspension of contract;
- Withholding of funds;
- Rescission of contract based upon a material breach of contract pertaining to SBEDA Program compliance;
- Refusal to accept a response or proposal; and
- Disqualification of a respondent, contractor or other business from eligibility for providing goods or services to the City for a period not to exceed two years.[337]

Penalties may be imposed for the following:

- Fraudulently obtain, retain or attempt to obtain, retain or aid another in fraudulently obtaining, retaining or attempting to obtain or retain certification status as a S/M/WBE;

[331] *Id.*

[332] *Id.*

[333] *Id.*

[334] *Id.* at 61-2.

[335] *Id.* at 62.

[336] *Id.* at 63.

[337] *Id.* at 64.

- Willfully falsify, conceal or cover up a material fact or make any false statements or representations, or make use of any false writing, knowing the same to contain any false statement;

- Willfully obstruct, impede or attempt to obstruct or impede any authorized official or employee who is investigating the qualifications of a business entity which has requested certification as a S/M/WBE;

- Fraudulently obtain, attempt to obtain or aid another person fraudulently obtaining or attempting to obtain public monies to which the person is not entitled; and

- Make false statements to any entity that any other entity is or is not certified as a S/M/WBE.[338]

13. SBEDA Program Review, Modification and Sunset

The Ordinance mandates the City, beginning no later than July 31, 2013, and every four years thereafter, to issue a request for proposals to undertake a comprehensive update of the full disparity study.[339] Upon completion, the results are presented to the City for review and a public comment period, and the City will consider any modifications to, or sunset of, the Ordinance.[340] Additionally, as part of the review process, the City Manager must make recommendations to City Council to modify procedures or provisions of the Ordinance and submit any draft legislation to effectuate the continuation, modification, or termination of the SBEDA Program.[341] Absent an extension in the enabling legislation for the amended SBEDA Ordinance by City Council, the provisions of the Ordinance are void and may not be enforced after November 30, 2015.

F. Business Owner Feedback Interviews

To gather anecdotal evidence of the effectiveness of current City of San Antonio M/WBE Program and procedures for leveling the playing field and opening up opportunities for M/WBEs on public contracts, we met with 90 business owners or representatives from a cross section of the industries from which the City procures goods and services.

The following are summaries of the issues discussed. Quotations are indented, and are intended to represent the views expressed by multiple participants.

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[338] *Id.*

[339] *Id.* at 65.

[340] *Id.*

[341] Id.

1. Significance of the City of San Antonio's M/WBE Program

In summary, all M/WBE firms reported that being certified provided opportunities that otherwise would not have presented themselves. The Program was seen as critical to allowing M/WBE businesses access to the business opportunities with the City.

> I really think that the SBEDA guidelines that the City of San Antonio has instituted are very productive and really help some of our other clients…get public work [that] otherwise they wouldn't.

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> [T]he only reason this very highly qualified minority firm got hired for the work was because the large contractor was trying to get the City's work and they had a big project.

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> If the City would not have this program in place, the process since day number one until now, we would not be doing the volume of work that we do.

There was universal consensus among all stakeholders, M/WBE and non-MWBEs, trade associations and advocacy groups were very complimentary of SBEDA and the staffs' administration of the program.

> The City staff is very accessible, number one; the economic development, the SBEDA individuals, they're accessible, they are very well informed, they help promote and they push out opportunities via the website.

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> I think the City is doing an effective job in reaching out to ourselves [Hispanic Chamber], and other minority groups…I believe the small business committee has been effective…They are honest and strong advocates for the representatives.

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> [We] have had a long history in working cooperatively with the City SBEDA Program, have been on the committees. We believe in the program and I've enjoyed working with [names specific City staff members].

2. Supportive Services

The M/WBE firms were very supportive of the City's mentor protégé program but thought that the program needed improvement.

> I think that program needs a lot of work on the end of, once you get past the boot camp, what that goal is for the protégé, and how do we get that work with the City.

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> The issue with the mentor protégé is it does need to be fixed. And I think that's where the City is failing, as far as the mentor/protégé program, is they are not utilizing it as a right tool.

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> I think I would close the loop on the mentor protégé program. I think that the program is excellent. I think it's got great intent, but I think that it kind of stopped midway, in that the City departments don't know about it, there's no advantage to mentor companies to mentor a protégé.

3. Certification Standards and Processes

Many M/WBE firms had a positive experience with the certification process and there was not any major dissatisfaction with the South Central Regional Certification Agency ("SCTRCA") and recertification process.

> I just did mine recently [certification], and it was a lengthy process. But it was good, everyone was good, and everyone was real helpful.

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> I have no issues. We're certified by both agencies, SCTRCA and …And they were timely, and they were very good. Yeah they did their due diligence to make sure who owned the company and what percentages, but they were good.

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> I've had a couple of experiences with the same organization. The first time around I submitted my paperwork for a renewal, and they lost the whole bid. So, I had to go back a couple of weeks later after I had an appointment to follow up, and then I have another person taking care of it, and she solved it like beautifully and quickly.

An issue expressed by some M/WBE firms regarding the South Central Regional Certification Agency, especially for WBE firms, was the excessive and unfair scrutiny the firms received during the certification process.

> It was thorough—my wife is our CEO, and they treated us as if we're a sham corporation because I'm a white guy and my wife is economically disadvantaged women owned small business and it was just an awful process.

***

> I went through a whole process with a very good electrical subcontractor who is a husband and wife team, and she does all of the business; the accounting, document

> control, all of that stuff. We introduced them to the program and thought it was great and everything. They couldn't get certified by South Texas because they went and interviewed her and she could not tell you how many watts in a kilovolt or whatever.

There was also concern with some M/WBE firms regarding the annual cycle for recertification and the submission of sensitive financial information.

> I don't know what the City could do about this, but in terms of certification and recertification, every year that you have to recertify. And I just got tired of it; because I felt like there was a lot of information I was giving that had nothing to do with my business.

***

> [W]e got to make sure that everything we do, everything is with our own forces where other people will do a little bit, they'll do the core work, but some other stuff, they'll sub out. Like someone told me I had to do all my caulking. I don't do caulking…That's not my expertise. We put in curtain wall. We put in ornamental metal…We don't do caulking.

4. Pre-award Processes

a. Meeting M/WBE Goals

A significant number of nonminority construction firms thought that the M/WBE goals were too high and the availability of African American firms to meet race specific goals is limited.

> Part of the problem is the goals are high. Those goals aren't attainable…I think the City really needs to look when they set those goals at more realistic number and allow more time.

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> I think they are unrealistic because they look at the registry and count the number and they have no process for qualifying.

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> I would agree and AABE is the toughest.

Several non-MWBE firms suggested that their ability to meet the goals would be improved if they were able to count second tier participation.

> No second tier…That's something that…but we still have to meet the goal and we would if we had second tier.

Some M/WBE firms thought that the individuals setting goals on City projects needed more training or industry education.

> I just wonder if that's just some kind of screen, because they don't know. So, maybe there's a training or education gap with the analyst who are setting goals…

Several White male construction contractors also suggested that the City should revisit the requirements for prime contractors to advertise subcontracting opportunities.

> I was looking at some of the ways they want to change things. Go through an article in express news. Who reads the express news? Everyone is on the internet.

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> Between the newspapers or whatever you put out there, even the small publications, all the time, all the logs …you are spending at least $2,000, $3,000 easy to bid on a job.

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> They don't realize the financial burden.

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> I don't think the City understands that we're running a business that everything has to be feasible. They ask us to pay for advertising or do this, and they don't realize that it does cost a lot, and sometimes we don't have the manpower to do it.

Some nonminority firms complained about the quality of the City's vendor database and the accuracy of the goal setting process.

> I mean, if you just reduce the goals to a more realistic number, a lot of that would take care of that because then you will get the right number of responses in all that. I think they are trying to maximize participation based on the list that's wrong. So if they understand that the list is wrong, if they are not going to fix it or even tried to fix it, they'll still have problems with problems.

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> We keep our own South Texas file up…We have a computer-based program so we can log in all of the calls. We never have approached the City to clean up their list, mainly because I think it's just wasted effort. Their whole goal is to get more people on the list so I don't really see that happening.

A significant issue raised by the nonminority construction firms and the AGC trade associations was the submission of the M/WBE documentation during the bidding process.

> Our main issue with the SBEDA program is the bidding process. The time required on the bid date and deadlines. There is so much work to be done for calculations, information to be provided that really we only get the answers to at the last moment.
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> So to determine percentage calculations and things like that, get that information down to the City, is pretty difficult and almost impossible to get completely accurate. So one of the issues we find with the City is that timing…To us, that's one of the major issues with the program.
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> A lot of time the SBEDA people are not construction people. They don't understand what goes on the bid process.

Some M/WBE firms thought that as minority primes they should be able to count their participation toward the goal.

> And I am a minority contractor as well and my percentage doesn't count towards the goal.
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> Right now, even if we are a DBE, you have to bring still another DBE. We don't qualify to that, so to make ourselves qualified within percentage.
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> ***
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> I always looked at this program as trying to get my firm more experience, be able to grow my firm, and if I have to meet the same goals as everybody else, all the other large firms, then I'm having to give away more of the work that I feel that I could do and I can use to grow my firm

b. Contract Solicitations

There was significant support among the M/WBE firms to reduce the size of City contracts to improve the opportunities for small firms to win prime contracts.

> And it seems like perhaps the analyst could do a better job about picking out those contracts that could benefit small business and allow those to break up that way.

Several M/WBEs expressed reservations regarding the City's insurance requirements on City projects as a barrier to participation.

> [O]n less than $50,000 they want a $1 million policy. I was looking at one contract and it says the risk of me taking this item to that company department doesn't really warrant a

> $1 million policy…. [T]hey should require insurance, but $1 million, or even more than that, to cover the contract? It just didn't seem to make business sense whatsoever.

Several M/WBEs recounted positive experiences with the City on getting debriefed by staff on their proposal.

> One of my clients an engineering firm, requested a debrief and they had it, in fact, in writing, and it was a really good experience for them… [T]hey had a great experience.

There was uniform agreement among M/WBEs that the City should break down the contracts into smaller sizes and make adjustments in the solicitation requirements to allow small businesses to compete. The solicitation of commodities raised by the MWBE firms was a major issue that was discussed extensively by the Small Business Advocacy Committee and was being studied by SBEDA.

> [I]t would be nice to see those large RFPs be broken more…for research or medical buying or marketing…

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> A lot of times for these larger contracts for commodities, the City is requiring that the winning bidder provide access to ordering through a very robust and complicated technology in an ordering system. For a small business in order to remain competitively priced and fulfill that, it's impossible.

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> The other barrier for entry [in commodities] is they write the requirement to be all or none. We may not have access to every single item on that list. We can do part of it. In some entities, whether they are cities or municipalities or universities, they actually do line items; lowest bidder gets the line item.

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> [W]e had several City contracts sort of maintaining existing buildings, but in the new construction phase of it, the way they bundle a lot of the air conditioning work that needs to be done is bundled too large of a portion where a small minority company often cannot bond for it, hence, if we can't bond for it, we can't even bid.

Several M/WBEs and non-MWBEs strongly favored the submission of proposals electronically both as a cost saving measure and to even the playing field.

> Our proposal was two binders thick, and they wanted ten hard copies. So we spend, like $5,000 on printing and binders, and that's a huge expense for a small company.

***

> It's a killer expense for us. So sometimes, I'll look at how – and like the other day, I just had to buy 24 matching binders with tabs for each one, and you spend hours just putting them together. Why doesn't everybody just take electronic copies?

5. Contract Performance

a. Monitoring

Many M/WBE firms recognized the City's monitoring of contract payments during the term of the contract was much more rigorous.

> But as far as checking in on subs, if there's a goal stated in the RFP, and you have to put together that SBEDA plan, and there's a contract audit, it has to be done every single month. And I can tell you right now, I've been on the receiving end of the knock on the head about you didn't do it in time and where are we on your goal, and it's not fun.

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> On my contracts, my newer ones, there's a compliance portion. My older ones, there wasn't and I guess it's because it might have just come into play the last two, three years.

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> They are much more aggressive.

Some nonminority firms expressed their view that the City's monitoring and compliance efforts were counterproductive and inefficient.

> "Yes it was zero because maybe I didn't need refrigeration work done this month, because I didn't have any repairs" So they still have to go in and say, "Yes, I didn't get anything." …So in some instances the hammer is very efficient and quick, but I just don't think it's efficient across the board.

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> I think there was some concerns expressed that there was a lack of understanding sometimes by the SBEDA people… [T]hey make calls for scope [services] that hadn't come out yet and they were more than mechanics of "Hey, have you paid your landscaper? Why haven't you paid your landscaper?" "Well the landscape work doesn't come until the end of the project." And then you get that same call again next month with the same answer. [In [s]ome of my conversations there was some frustration that had to deal with that.

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> [A] City project…want[s] me to confirm payment from September of 2014. I mean that's a little late.

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> Well, they have created a lot of confusion, because they …SBEDA office calling subs and saying have you been paid? They don't know what question to ask…you've got to qualify it.

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> So there is that verification. But as far as who is actually doing the work, there is no checking to see whether – they're just checking to see who is paying who…

b. Payment

In general, both M/WBEs and non-M/WBEs recognized the importance of receiving timely payments and the negative impact not getting paid had upon their ability to be successful on City projects.

> [W]e have contractors we use all of the time, and to them, cash is king, absolutely. We pay them regularly before we get paid, because we know how important cash flow is to them. Absolutely!

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> So that's a consequence of we're not able to be the prime, we're not able to cash flow.

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> We can't pay until we get paid. And when we went seven months, which equals to a big cash flow problem when you're a small firm.

Several contractors reported that they had not had any problems with timely payments on their contracts with the City.

> Most of our work is directly with the City, and most of our work is stuff that is clearly defined and clearly, once you've done it, it's done…So it doesn't have to be closed out or whatever. So our experience with the City is very good.

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> Well, the City's been doing a good job in some of the type of works, and paying a lot quicker than they used to, a lot quicker.

c. Reporting Technology

The City's portal system—the electronic bidding portal ("SAePS") and the capital project management portal ("PrimeLink") received mixed reviews from both the M/WBE and non-M/WBE business community.

> But I think the front end of that portal that the City has, the portal is very confusing. Sometime it works, sometimes it doesn't, so that's an obstacle, it's kind of …a barrier to have to go through that.
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> I would echo the sentiment about the portal, in fact, I just went to a pre-proposal meeting, and I asked the question, "Do you prefer to get the hard copies, or do you want us to send our proposal on the portal? And it was like, eyes big, "Well, you can send it on the portal if you want to, but make sure you call and make sure we got it." And I was like, "So clearly you want a paper copy." They said, we'll take those.
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> We had an instance though in the last City job we did it took us about 90 days to get paid because the portal broke down and we flat could not file our payout. It kept bouncing…Eventually they got the portal fixed….
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> We had to downgrade our internal systems to interface with theirs. They would only use Microsoft Explorer, and so we had to continually downgrade our machines to interface.

d. Retainage

There was a major concern among the majority of M/WBE construction and non-M/WBE firms regarding the City's process and the long delay to release retainage.

> I'll be honest with you…But a lot of subs get done early and a lot of scope gets done early and basically retainage gets held across the board. And sometimes when we can we will pay them…But if you think if I don't pay this guy, I'm going to break him. If I break him, then I don't have my sub.
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> When we had a project that we finished at the end of 2013 and there was about $300,000.00 retainage, we finally got the beginning of this year.
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> ***
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> [C]hange the way retention is held, whether it's held for the whole project until every scope of work is completed. Why can't they parcel that out...if your work is 100 percent, and if you complied with all the conditions of a contract, they should release that portion of the retention.

e. Front Companies

There was uniform perception with minority and nonminority firms who stated that shams and front companies continue to be a problem in the City of San Antonio with the M/WBE program.

> [W]e help get companies certified, not just MBE, but also ACDBE and MBE…We've actually been approached for people to be qualified, and it's a white male who owned the company trying to put his wife in the position…
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> And by the way, it's not just the white folks that do bad stuff. The brown folks too, they just put up a—you know on the certification, they'll have an address somewhere, somebody goes to check it and there's an empty lot.
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> Yeah, it becomes an issue. I know some firms that I personally know, the professional services side, have problems with some particular firms that are crafting their business where someone shaves off of their company to create a company, and both team with one another and kind of get certified.

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IX. Recommendations for Revised Contracting Policies and Procedures

As required by the strict scrutiny standard of review, the City of San Antonio ("City") Disparity Study documents the utilization of M/WBEs on the City's prime contracts and associated subcontracts. The study analyzed utilization in the primary contracting categories of Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & supplies. It also documents evidence related to the success of minorities and women in obtaining business elsewhere in the San Antonio-area economy, particularly in the private sector. The Disparity Study has collected both statistical and anecdotal evidence in this regard.

This evidence provides the City of San Antonio with information that is relevant for its consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which its past efforts have assisted M/WBEs to participate in the City's contracting and procurement opportunities. It also provides the City with information that can assist it to continue to narrowly tailor its M/WBE policies to be consistent with the findings in the Disparity Study.

A. Race- and Gender-Neutral Recommendations

The courts require the consideration of alternative race neutral means to increase M/WBE participation for a narrowly tailored M/WBE program.[342] While the City is not obliged to "exhaust every conceivable race-neutral alternative,"[343] such efforts are an important element of a narrowly tailored program, so that the burden on non-M/WBEs is no more than what is necessary to achieve the City's remedial purposes. Increased participation by M/WBEs through race-neutral measures can also reduce the need to set race-conscious contract goals in the future.

We therefore suggest the following continuations and/or enhancements to the City's current efforts, based on the Disparity Study's results, including the feedback we received during our interviews with minority, women and nonminority business owners as well as with City staff.

1. Increase Efforts to Ensure Prompt Payment on City of San Antonio Contracts

There was uniform agreement across ethnic and gender groups that the City's payment process has improved but payment remains one of the most important issues on City contracts. Slow payment by the City or Prime contractors, in turn, slows down payments by prime contractors to their subcontractors. Almost all of the minority owners we spoke to indicated great difficulties being paid by primes, especially in the later stages of the contract. The M/WBE firms we interviewed recommended that the City strictly monitor all its contracts to ensure that contractors are making payments to their M/WBE subcontractors and meeting their other obligations under their contracts.

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[342] *City of Richmond v. JA Croson Co.,* 488 U.S. 469, 507 (1989), citing *United States v. Paradise*, 480 U.S. 149, 171 (1987).

[343] *Id*.

The contracting community's concern about prompt payment applied not only during the course of the contract but on retainage. The City should review its' policies and procedures on retainage and where feasible release retainage to M/WBE and small business subcontractors as early as possible. The retainage should be paid directly to the subcontractor or in the form of a joint check to ensure that the money is paid to the subcontractor. This recommendation is particularly significant for the contracting community on larger and more complex multi-year construction projects.

Enhance the current contract payment tracking technology whereby prime contractors and subcontractors could see where an invoice is in the approval and payment process. Technology of this kind would also allow subcontractors to determine whether or not a subcontractor's pay application was included in the prime's pay request.

2. Ensure Bidder Non-Discrimination

Some M/WBEs expressed concerns that prime contractors were not soliciting their subcontractor quotes in good faith on City projects, and many indicated that they were seldom or never solicited to bid on non-goals projects, whether public or private. Some non-M/WBE prime contractors also indicated that M/WBEs quotes were higher than those of non-MWBEs, forcing them to choose between meeting the M/WBE goal and submitting the lowest possible bid. To investigate this, San Antonio should consider requiring all bidders to submit all subcontractor quotes received on larger City projects. The prices and scopes could then be compared to detect whether bidders are in fact soliciting and hiring subcontractors in a non-discriminatory manner, and whether M/WBEs are unreasonably inflating quotes.

3. Review Surety Bonding, Insurance and Experience Requirements

The City should review surety bonding and insurance requirements to ensure that amounts are no greater than necessary to protect San Antonio's economic interests. A related change would include removing the cost of the surety bond from the calculation of the lowest bidder on solicitations where bonding is required.

Although the City's current Bonding Assistance Program has yet to result in any firms being issued letters or lines of credit from the City's micro-lending partner, the City should continue this Program and continue to work closely with lending partners to qualify participating firms for such credit. In addition to this Program, a guaranteed surety bonding program for small firms might also be considered. One model for such a program is the City and County of San Francisco's Surety Bond and Financing Assistance Program. This Program makes bonding, financing and technical assistance available to eligible, certified contractors. The Program targets small contractors, including M/WBEs, and includes a guarantee pool that provides collateral for loans and bonds up to $750,000 on local construction projects. A separate component targets contractors for specific, large, upcoming projects.[344]

[344] *See* www.imwis/com/services/bonding/assistance/index.asp.

To the extent allowable under State law, the City might also consider introducing an owner controlled insurance program ("OCIP") for larger projects. Under an OCIP program, the City purchases an insurance policy for the project that provides coverage for all businesses working on that project. There are potential project cost savings to the City as well as potential benefits to contractors and subcontractors in lower insurance costs. There was general agreement among M/WBEs that such changes would reduce barriers and facilitate capacity building.

A substantial number of M/WBE architectural and engineering firms also believed that the City sets unnecessarily strict past City experience thresholds or awarding points for prior City experience that shuts them out of projects that they are qualified to perform. These standards were viewed as anti-competitive and in existence for the benefit of incumbent firms already doing City work. San Antonio should review its qualification requirements to ensure that M/WBEs and small businesses are not unfairly disadvantaged in competing for City work. Equivalent experience, gained for example by working for other public agencies, should be allowed in order to increase access for M/WBEs and to guard against unfair incumbent advantages.

4. Increase Contract Unbundling

The City departments have cooperated with SBEDA in identifying potential opportunities for unbundling. There was general agreement that smaller sized contracts and fewer multi-year term contracts would increase opportunities for M/WBEs to perform as prime contractors. Large contracts and their requisite bonding and/or insurance requirements, often place prime contract opportunities out of reach for M/WBEs. Where it is economically feasible, City departments should continue to strive to unbundle contracts so as to facilitate bidding by M/WBEs and to increase the number of prime contracts awarded to M/WBE firms.

One approach to increase M/WBE participation in commodities is to unbundle blanket purchase order contracts and award line items to M/WBE firms. Another strategy would be to require each City department to provide an annual unbundling forecast, documenting efforts to segment contracts and providing justification for the lack of segmentation where it is not economically appropriate. Smaller contracts are an important race-neutral component approach to expanding contracting opportunities in conjunction with reduced bonding and insurance requirements and should assist M/WBE firms to move from bidding solely on subcontracts to bidding on prime contracts.

5. Provide Greater Access to Information for Upcoming Contract Opportunities

While business owners were appreciative of the outreach information that the City provides, there was uniform agreement across ethnic and gender groups of the need for a central online source to provide continuously updated information on future public contracting and purchasing opportunities from all of the government entities in the San Antonio market area.

6. Facilitate Increased Access to Capital

Many M/WBE firms, especially African American-owned firms, stressed their difficulties in obtaining working capital and other kinds of commercial credit. The City should continue its efforts to facilitate discussions with large and small financial institutions in the San Antonio market area centered on increasing access to capital for M/WBEs and other small firms. The City should also consider establishing a linked deposit initiative that leverages the City's own deposits and other investments with local financial institutions to promote increased access to capital for M/WBEs and other small firms. Under such an initiative, M/WBEs could use City contracts and subcontracts as collateral for loans from the City's depository institutions at lower interest rates and reduced credit standards.

7. Expand the Mentor-Protégé Program

A number of non-M/WBE prime contractors expressed frustration regarding insufficient availability and capacity in the pool of local M/WBEs to meet the City's goals. The City should consider expanding the current Mentor-Protégé Program to facilitate the expansion of M/WBE capacity. The current program and approach is well regarded by M/WBE firms. A Mentor-Protégé Program seeks to further the development of smaller M/WBEs by providing assistance in performing larger projects, diversify into non-traditional areas of work and competing in the market outside of the M/WBE Program.

An expanded Mentor-Protégé Program could be modeled after the guidelines in the regulations governing the Federal DBE Program.[345] Elements of such a program include formal program guidelines; a City-approved written development plan that sets forth each party's objectives and roles, the duration of the arrangement and the services and resources to be provided by the Mentor; and a fee schedule to cover the direct and indirect costs for services provided by the Mentor for specific training and assistance to the Protégé.

Mentors currently receive five bonus points on request for Proposals, but the program does not seem to be well known in the Professional Services and Other Services community. The City may wish to increase the number of Mentors by increasing bonus points above five or awarding credit towards meeting M/WBE goals. A stronger Mentor-Protégé Program would enhance the City's capacity building efforts, and hopefully provide protégés with greater access to contracts and increased opportunities to compete for larger projects that can afford them the opportunity to grow into prime contractors. Additional incentives, such as reimbursement for participation costs, would also increase the attractiveness of the Program to potential Mentors.

8. Continue to Provide Supportive Services for Construction Firms and Expand Supportive Services for Firms in Non-Construction Categories

The City should continue to work closely with the various trade associations in considering the recommendations and be sensitive to the potential burden created by the SBEDA administrative

[345] See 49 C.F.R. Part 26, Appendix D.

requirements and their impact upon running and operating a Construction and/or professional services firm.

M/WBE firms expressed support for increased opportunities for access to City project managers, in order to establish relationships and build trust. Professional Services and Other Services providers urged the City to focus more on services solicitations and increase the resources devoted to providing opportunities on City contracts, not only in Architecture and Engineering Services, but for all categories of services procured by the City. African American architectural firms, in particular, were interested in the City providing more prime opportunities on City projects.

9. Continue the Small Business Enterprise Programs

San Antonio should continue the Small Business Enterprise (SBE) and Emerging Small Business Enterprise (ESBE) Program and expand the current Small Business Construction Program. There was general support expressed for small business and local business preferences across all ethnic and gender categories. Given the judicial prohibition on race-based contract set-asides, such programs can be critical tools to provide opportunities for M/WBEs and other small firms to compete for prime contracts. Providing preferences to small firms on a race- and gender-neutral basis will also reduce San Antonio's reliance on race- and gender-conscious subcontracting goals to meet the overall annual goals, as most M/WBEs are likely to qualify as SBEs.

10. Improve Contract and Subcontract Data Collection and Retention

City procedures for contract and subcontract data collection and retention related to the M/WBE Program were excellent. The data records for the City were generally current, and comprehensive in capturing the necessary information to accurately track participation. The City should continue to improve the data entry process for electronic data collection. The City should also work to improve the monitoring software system to more accurately track and monitor contract compliance—many nonminority prime contractors complained the system currently requires the entry of redundant information or triggered non-compliance warning letters or calls for work that had not commenced.

Enhance the current contract payment tracking technology whereby prime contractors and subcontractors could see where an invoice is in the approval and payment process. Technology of this kind would also allow subcontractors to determine whether or not a prime contractor has been paid by the City and whether the subcontractor's pay application was included in the prime's pay request.

a. Records for third-party agreements

Records comparable to those outlined above for prime contracts and subcontracts should also be collected and maintained for any TIF projects and third party development contracts that received City assistance, regardless of whether or not such contracts have M/WBE goals placed on them. This will facilitate the monitoring of such contracts' compliance with the requirements of the M/WBE Program as well as the analysis of M/WBE participation on third-party contracts in future disparity studies.

B. Race- and Gender-Conscious Recommendations

1. Adopt a Renewed M/WBE Ordinance and Accompanying Program Regulations

The Disparity Study's results support the determination that the City of San Antonio has a strong basis in evidence to continue to implement its M/WBE Program for its locally-funded contracting activities. The Study provides statistical and anecdotal evidence of discriminatory practices and attitudes that impede opportunities for minorities and women for full and fair participation in the City's contracting activities as well as economy-wide.

The Study found statistical disparities in M/WBEs' access to private sector contracting opportunities overall, and to those factors necessary for business success, such as access to commercial credit and capital, leading to the inference that discrimination is a significant cause of those disparities. The continued presence of private sector discrimination suggest that the City should also continue expanding the SBEDA program to third party projects in which the City makes an investment of local funds. Moreover, the anecdotal evidence we gathered supports the conclusion that discrimination remains a major barrier to the full and fair participation of minority- and women-owned firms on City contracts.

In sum, there is in our opinion ample evidence that affirmative intervention is needed to dismantle the vestiges of a private sector system of racial and gender exclusion and ensure that M/WBEs have equal contracting opportunities on City contracts and associated subcontracts. It is clear that continuing the use of M/WBE goals would not be motivated by the illegitimate racial stereotypes or blatant racial politics that strict constitutional scrutiny seeks to smoke out. There was virtually unanimous agreement among the M/WBEs we interviewed that contracting affirmative action remains necessary to ensure equal opportunities for City contracts and associated subcontracts and to mitigate a continuing lack of equal opportunity in the private sector of the san Antonio market area. Absent continued remedial action, the City of San Antonio will likely be a passive participant in a discriminatory market area.

In adopting a renewed M/WBE ordinance, the City of San Antonio should revive the general outlines of the current program, and delegate to the City Manager or other appropriate City officials the development of the new program initiatives. Limiting the M/WBE Ordinance to a general outline would allow City personnel added flexibility to make programmatic changes without the requirement of amending the ordinance. The City should also consider the following suggestions.

2. Increase Resources and Staffing for the SBEDA Program

A legally defensible and administratively successful M/WBE Program cannot be implemented without additional resources. The Economic Development Department's Small Business Office ("SBO") is currently understaffed to perform all of the functions and duties assigned in implementing the M/WBE program and the other elements of the SBEDA Ordinance. The City should consider adding additional resources and manpower to assist the SBO in effectively accomplishing the objectives of the Ordinance.

Presently, a significant fraction of contracts with SBEDA goals are out of compliance. The SBO relies on City departments to communicate with prime contractors in such cases and attempt to bring them into compliance. It does not currently have the staffing necessary to perform this function on its own. In cases where City departments fail to bring prime contractors into compliance, the SBO should have the authority and the resources to undertake this effort themselves.

Similarly, it is important that other City departments' responsibilities for meeting the M/WBE Program objectives are increased and re-emphasized. M/WBE participation in City of San Antonio contracting will be less successful if it is seen as "the M/WBE Program," rather than as a City-wide initiative for which all department heads will be held responsible. Job descriptions should reflect this priority, with effectiveness at meeting M/WBE Program objectives being an evaluation criterion for raises and promotions.

As the current ordinance reflects, the SBO should continue to have sole responsibility for the operation and administration of the City's M/WBE Program. The SBO plays a vital role in policy development and community outreach and involvement that will hopefully continue to grow and expand. The SBO's collaboration with the various stakeholder and advocacy groups is essential to an effective outreach program and should continue.

3. M/WBE Goal-Setting

a. Adopt annual aspirational M/WBE goals

The Disparity Study's estimates of M/WBE availability in San Antonio's relevant market area are provided in Chapter III. These estimates should provide the starting point for consideration of annual aspirational targets for City contracting with M/WBEs. Of course, as Chapter IV documents, current levels of M/WBE availability are likely depressed by the continuing effects of discrimination. For this reason, an argument exists for setting goals that exceed current levels of availability. That is, goals that reflect a discrimination-free market as opposed to those that reflect outcomes from a market tainted by discrimination.[346] Using the disparities in the business formation rates of M/WBEs compared to non-M/WBEs can provide a quantitative basis for such a determination.

San Antonio annually reviews its progress towards meeting its overall M/WBE goals. That review should include consideration of whether race- and gender-conscious remedies continue to be necessary to meet the previously established goals and whether subcontracting goals no longer need to be set for certain types of contracts. Annual goals adopted based upon the current evidence should continue until full and accurate data are produced in a future study.

b. Count M/WBE prime participation towards meeting M/WBE goals

Most M/WBEs we interviewed expressed frustration in obtaining public sector prime contracts. This sentiment crossed industries, size of firms and length of time in business. Currently,

[346] S*ee*, *e.g.*, 49 C.F.R. §26.45(b) (The goal should "reflect [the agency's] determination of the level of DBE participation you would expect absent the effects of discrimination").

M/WBE prime contractors cannot currently count their participation towards meeting a contract goal. We recommend that the City consider following the federal approach, which permits a firm to count its self-performance, whether as a direct prime or as a joint venture partner, minus any work subcontracted to non-certified firms.[347] This approach serves three important objectives. First, it expands opportunities for M/WBEs to act as prime contractors, which helps to grow their capacity and may also facilitate the formation of more joint venture relationships at the prime level on major City projects. Second, counting prime contractor participation should increase the pool of competitive firms for City contracts, thereby benefiting San Antonio taxpayers. Finally, counting prime contractor participation reduces the reliance on subcontracting goals. This, in turn, reduces the burden on nonminority male-owned firms that compete in those areas where there are relatively higher levels of M/WBE availability, and therefore contributes to a more narrowly tailored M/WBE Program.

c. Continue to set contract-specific goals

The City of San Antonio has properly adopted a narrowly tailored approach to contract goal setting. The Disparity Study's detailed NAICS-level availability estimates provide an objective starting point for contract goal-setting. Contract goals should reflect the availability of M/WBEs to perform the anticipated subcontracting scopes of the project. Thus, contract-specific goals may be higher or lower than the annual aspirational goals. If there are no subcontracting opportunities, no goal should be set. Similarly, the annual aspirational goals should not necessarily be considered as a ceiling on contract-specific goals. Data tracking and contract-monitoring software technology, or related software tools, can assist with the burdens of contract goal-setting.

The race-specific contract goals are often seen as a ceiling and not a floor on subcontracting opportunities. Minority and nonminority firms uniformly reported that once a contractor achieved the designated percentage for that ethnic or gender group, the contractor would not award any additional work above the designated goal. The City of San Antonio should re-evaluate to use of race and gender specific goals and in the goal setting process, the scopes of work should be considered and the relative availability for that type of work. The goal is to avoid contractor commitments which do not reflect the scope of services and match the available pool in that industry for those services.

It is often difficult to set goals on "task order" or "on call" contracts because the scope of the work is not fully developed in advance. The M/WBEs listed in such contracts have no guarantee of any amount of actual work which makes it difficult to plan their schedules. Moreover, prime contractors acting in good faith on such contracts reported that listing M/WBE contractors created unrealistic expectations because they did not know the scope of work to be awarded and list firms in a variety of disciplines to cover the water front. The failure to utilize a subcontractor because their scope of services were not included in a task order or job order during the contract strains the relationship with the listed firms and makes achieving the stated goal difficult if not impossible depending upon the final portfolio of services.

[347] *See* 49 C.F.R. § 26.55(a) (1) ("Count the entire amount of that portion of a construction contract…that is performed by the DBE's own forces").

Further, a number of our interview participants suggested that the SBO should play a greater role earlier in the contracting process. In particular in reviewing and drafting the initial specifications for award. This change would provide earlier and more standardized opportunities to reduce contracting barriers for such firms.

4. Continue the M/WBE Program Sunset Review Process

The City of San Antonio should continue to require that the evidentiary basis for the Program be reviewed every five years, and that it should be continued only if there is strong evidence that discrimination continues to disadvantage M/WBEs in the relevant market area. The Program's goals and operations should be included as part of the review in order to ensure that they remain narrowly tailored to current evidence. The practice of setting a sunset date for the ordinance, when the Program will end unless reauthorized, should continue.

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References

Acs, Z. and D. Evans (1994), "The determinants of variations in self-employment rates across countries and over time," Working Paper.

Alba-Ramirez, A. (1994), "Self-employment in the midst of unemployment; the case of Spain and the United States," Applied Economics, 2, 189-204.

Arai, A. B. (1997), "The road not taken, The transition from unemployment to self-employment in Canada, 1961-1994," Canadian Journal of Sociology, 22, Summer, 365-382.

Areeda, P., L. Kaplow and A. Edlin (2004), Antitrust Analysis: Problems, Text, Cases, New York: Aspen Publishers, 6th ed.

Aronson, R. L. (1991), Self-employment, ILR Press, Ithaca, NY, ILR Press.

Bates, T. (1973), Black capitalism, a quantitative analysis, New York, Praeger.

Bates, T. (1989), "The changing nature of minority business, a comparative analysis of Asian, non-minority, and black-owned businesses," The Review of Black Political Economy, 25-42.

Bates, T. (1991a), "Discrimination and the capacity of Chicago metropolitan area minority and women-owned businesses," Report to the City of Chicago Department of Law.

Bates, T. (1991b), "Commercial bank financing of white- and black-owned small business startups," Quarterly Review of Economics and Business, 31(1), 64-80.

Bates, T. (1993), "Banking on black enterprise, the potential of emerging firms for revitalizing urban economies," Washington, DC, Joint Center for Political and Economic Studies.

Bauer, P. W. and B. A. Cromwell (1994), "A Monte Carlo examination of bias tests in mortgage lending," Federal Reserve Bank of Cleveland Economic Review, 30(3), 27-40.

Becker, G. S. (1957), The economics of discrimination, University of Chicago Press, Chicago, Illinois.

Bernhardt, I. (1994), "Comparative advantage in self-employment and paid work," Canadian Journal of Economics, May, 273-289.

Black, J., D. de Meza and D. Jeffreys (1996), "House price, the supply of collateral and the enterprise economy," The Economic Journal, 106(434), January, 60-75.

Blanchflower, D. G. (2000), "Self-employment in OECD countries," Labour Economics, 7, September, 471-505.

Blanchflower, D. G. (2009), "Minority self-employment in the United States and the impact of affirmative action programs," Annals of Finance, (5)3-4, 361-396.

Blanchflower, D. G., P. Levine and D. Zimmerman (2003), "Discrimination In The Small Business Credit Market," Review of Economics and Statistics, 85(4), 930-943.

Blanchflower, D. G. and B. Meyer (1994), "A longitudinal analysis of the young self-employed in Australia and the United States," Small Business Economics, 6, 1-20.

Blanchflower, D. G. and A. J. Oswald (1990), "Self-employment and the enterprise culture," British Social Attitudes: The 1990 Report, edited by R. Jowell, S. Witherspoon and L. Brook, Aldershot: Gower.

Blanchflower, D. G. and A. J. Oswald (1998), "What makes an entrepreneur?," Journal of Labor Economics, 16(1), January, 26-60.

Blanchflower, D. G. and A. J. Oswald (2008), "What makes a young entrepreneur?," International Handbook on Youth and Young Adulthood, edited by Andy Furlong, in the Routledge International Handbook series.

Blanchflower, D. G., A. J. Oswald and A. Stutzer (2001), "Latent entrepreneurship across nations," European Economic Review, 45, no. 4-6, May, 680-691.

Blanchflower, D. G. and C. Shadforth (2007), "Entrepreneurship in the UK," Foundations and Trends in Entrepreneurship, 3(4), 257-364.

Blanchflower, D. G. and J. S. Wainwright (2005), "An Analysis of the Impact of Affirmative Action Programs on Self-Employment in the Construction Industry," National Bureau of Economic Research Working Paper Series, #11793, November.

Blau, D. (1987), "A time-series analysis of self-employment in the United States," Journal of Political Economy, 95, 445-467.

Bogenhold, D. and U. Staber (1991), "The decline and rise of self-employment," Employment and Society, 5, 223-239.

Borjas, G. J. and S. Bronars (1989), "Consumer discrimination and self-employment," Journal of Political Economy, 97, 581-605.

Bourdon, C. C. and R. E. Levitt (1980), Union and open-shop construction, compensation, work practices, and labor markets, Lexington, MA: Lexington Books.

Broussard, N., R. Chami and G. Hess (2003), "(Why) do self-employed parents have more children?," Working Paper, September.

Browne, L. E. and G. M. B. Tootell (1995), "Mortgage Lending in Boston-A Response to the Critics," New England Economic Review, September-October, 53-78.

Cagetti, M. and M. DeNardi (2006), "Entrepreneurship, frictions and wealth," Journal of Political Economy, 114(5), 835-70.

Cavalluzzo, K. S. and L. C. Cavalluzzo (1998), "Market structure and discrimination, the case of small businesses," Journal of Money, Credit, and Banking, 30(4), November, 771-792.

Cavalluzzo, K. S., L. C. Cavalluzzo and J. Wolken (2002), "Competition, small business financing, and discrimination, evidence from a new survey," The Journal of Business, 75(4), 641-681.

Cloud, C. and G. Galster (1993), "What do we know about racial discrimination in mortgage markets," Review of Black Political Economy, 22(1), Summer, 101-120.

Coate, S. and S. Tennyson (1992), "Labor market discrimination, imperfect information and self-employment," Oxford Economic Papers, 44, 272-288.

Cole, R. A. (1998), "Availability of credit to small and minority-owned businesses, evidence from the 1993 National Survey of Small Business Finances," unpublished manuscript, Employment Policies Institute, Washington, DC, April 13.

Cowling, M. and P. Mitchell (1997), "The evolution of UK self-employment, A study of government policy and the role of the macroeconomy," Manchester School of Economic and Social Studies, 65, no. 4, September, 427-442.

Day, T. S. and S. J. Liebowitz (1998), "Mortgage lending to minorities, where's the bias?," Economic Inquiry, XXXVI, January, 3-28.

DeWit, G. and F. A. Van Winden (1990), "An empirical analysis of self-employment in the Netherlands," Economics Letters, 32, 97-100.

Dunn, T. A. and D. J. Holtz-Eakin (2000), "Financial capital, human capital, and the transition to self-employment: evidence from intergenerational links," Journal of Labor Economics, 18 (2): 282-305.

Eccles, R. G. (1981), "Bureaucratic versus craft administration: The relationship of market structure to the construction firm," Administrative Science Quarterly, 26, 449-469.

Enchautegui, Maria E., M. Fix, P. Loprest, S. von der Lippe and D. Wissoker (1996), Do minority-owned businesses get a fair share of government contracts?, Washington, DC: The Urban Institute.

Evans, D. and B. Jovanovic (1989), "An estimated model of entrepreneurial choice under liquidity constraints," Journal of Political Economy, 97, 808-827.

Evans, D. and L. Leighton (1989), "Some empirical aspects of entrepreneurship," American Economic Review, 79, 519-535.

Executive Office of the President, Office of Management and Budget (2012), North American Industrial Classification System: United States, 2012, Lanham, MD: Bernan.

Fairlie, R. W. (1999), "The absence of the African American owned business, an analysis of the dynamics of self-employment," Journal of Labor Economics, 17(1), 80-108.

Fairlie, R. W. (2006), "Entrepreneurship among Disadvantaged Groups: An Analysis of the Dynamics of Self-Employment by Gender, Race and Education," Handbook of Entrepreneurship, Volume 2, eds. Simon C. Parker, Zoltan J. Acs and David R. Audretsch, New York: Springer Verlag.

Fairlie R. W. and B. D. Meyer (1996), "Ethnic and Racial Self-Employment Differences and Possible Explanations," Journal of Human Resources, 31(4), 757-793.

Fairlie R. W. and B. D. Meyer (1998), "Does immigration hurt Black self-employment?," Help or Hindrance? The Economic Implications of Immigration for Blacks, edited by D. S. Hamermesh and F. D. Bean, New York, Russell Sage Foundation.

Fairlie R. W. and B. D. Meyer (2003), "The effect of immigration on native self-employment," Journal of Labor Economics, 21(3), 619-650.

Fairlie, R .W. and B. D. Meyer (2000), "Trends in self-employment among white and black men during the twentieth century," Journal of Human Resources, XXXV(4), 643-669.

Fairlie, R. W. and H. A. Krashinsky (2006), "Liquidity constraints, household wealth and entrepreneurship revisited," Working Paper, University of California, Santa Cruz.

Fairlie, R. W. and A. Robb (2007a), "Why are black-owned businesses less successful than white-owned businesses? The role of families, inheritances, and business human capital," Journal of Labor Economics, 25(2), 289-323.

Fairlie, R. W. and A. Robb (2007b) "Families, human capital, and small business: evidence from the Characteristics of Business Owners Survey," Industrial and Labor Relations Review, 60(2), 225-245.

Ferri, G. and P. Simon (1997), "Constrained consumer lending, exploring business cycle patterns using the Survey of Consumer Finances," Working Paper, Princeton University.

Foti, A. and M. Vivarelli (1994), "An econometric test of the self-employment model - the case of Italy," Small Business Economics, 6, no. 2, April, 81-93.

Fuchs, V. (1982), "Self-employment and labor force participation of older males," Journal of Human Resources, 17, Fall, 339-357.

Gould, F. E. (1980), "Investigation in construction entrepreneurship," Masters Thesis, MIT, May.

Greene, W. H. (1997), Econometric Analysis, Third Edition, New Jersey, Prentice-Hall, 926-931.

Haggerty, C., K. Grigorian, R. Harter and J. D. Wolken (2000), "The 1998 Survey of Small Business Finances: Sampling and Level of Effort Associated with Gaining Cooperation from Minority-Owned Businesses," *Proceedings of the Second International Conference on Establishment Surveys,* Buffalo, NY, June 17-21.

Hall, R. E. and F. Mishkin (1982), "The sensitivity of consumption to transitory income, estimates from panel data on households," Econometrica, 50(2), 461-81.

Hamilton, D., A. Austin, and W. Darity Jr., "Whiter Jobs, Higher Wages, Occupational Segregation and the Lower Wages of Black Men," Economic Policy Institute Working Paper No. 28, February 28, 2011, http://s1.epi.org/files/page/-/BriefingPaper288.pdf.

Harrison, G. W. (1998), "Mortgage lending in Boston, a reconsideration of the evidence," Economic Inquiry, XXXVI, January, 29-38.

Hayashi, F. (1985), "The effect of liquidity constraints on consumption, a cross-sectional analysis," Quarterly Journal of Economics, 100(1), February, 183-206.

Heckman, J. J. (1998), "Detecting discrimination," Journal of Economic Perspectives, 12(2), Spring, 101-116.

Holmes T. J. and J. A. Schmitz (1990), "A theory of entrepreneurship and its application to the study of business transfers," Journal of Political Economy, 89, 265-294.

Holtz-Eakin, D., D. Joulfaian and R. S. Harvey (1994a), "Entrepreneurial decisions and liquidity constraints," Journal of Political Economy, 102, 53-75.

Holtz-Eakin, D., D. Joulfaian and R. S. Harvey, (1994b), "Sticking it out, entrepreneurial survival and liquidity constraints," Rand Journal of Economics, 25(2), Summer, 334-347.

Horne, D. (1994), "Evaluating the role of race in mortgage lending," FDIC Banking Review, 7(1), Spring/Summer, 1-15.

Hout, M. and H. Rosen (2000), "Self-Employment, family background, and race," Journal of Human Resources, 35, no. 4, Fall, 670-92.

Hurst, E. and A. Lusardi (2004), "Liquidity Constraints, Household Wealth, and Entrepreneurship," Journal of Political Economy, Vol. 112(2), April, 319-347.

Jappelli, J. (1990), "Who is credit constrained in the U.S. economy?," Quarterly Journal of Economics, 105(1), February, 219-234.

Kanbur, S. M. R. (1990), "Entrepreneurial risk taking, inequality, and public policy, an application of inequality decomposition analysis to the general equilibrium effects of progressive taxation," Journal of Political Economy, 90, 1-21.

Kidd, M. (1993), "Immigrant wage differentials and the role of self-employment in Australia," Australian Economic Papers, 32, no. 60, June, 92-115.

Kihlstrom, R. E. and J. J. Laffont (1979), "A general equilibrium entrepreneurial theory of firm formation based on risk aversion," Journal of Political Economy, 87, 719-848.

Kuhn, P. J. and H. J. Schuetze (1998), "The dynamics of self-employment in Canada," Working Paper, McMaster University.

La Noue, G. (2006), "Remarks of George LaNoue," in Disparity Studies as Evidence of Discrimination in Federal Contracting, U.S. Commission on Civil Rights, Washington, DC.

Ladd, H. F. (1998), "Evidence on discrimination in mortgage lending," Journal of Economic Perspectives, 12(2), Spring, 41-62.

Laferrere, A. and P. McEntee (1995), "Self-employment and intergenerational transfers of physical and human capital, An empirical analysis of French data," Economic and Social Review, 27, no. 1, October, 43-54.

Lentz, B. F. and D. N. Laband (1990), "Entrepreneurial success and occupational inheritance among proprietors," Canadian Journal of Economics, 23, 563-579.

Lindh, T. and H. Ohlsson (1996), "Self-employment and windfall gains, Evidence from the Swedish lottery," Economic Journal, 106(439), November, 1515-1526.

Long, J. E. (1982), "The income tax and self-employment," National Tax Journal, 35, March, 31-42.

Mach, T. L. and J. D. Wolken (2006), "Financial services used by small businesses: evidence from the 2003 Survey of Small Business Finances," Federal Reserve Bulletin, October 2006.

Maddala, G.S. (1983). Limited Dependent and Qualitative Variables in Econometrics, Cambridge: Cambridge University Press.

Mayor's Advisory Council on Minority and Women-Owned Business Enterprises (2013). *A New Day A Better Way: Rebuilding A Stronger Baltimore Through Economic Inclusion*.

Meager, N. (1992), "Does unemployment lead to self-employment?," Small Business Economics, 4, 87-103.

Mora, M. T. and A. Dávila (2006), "Mexican immigrant self-employment along the U.S.-Mexico border: an analysis of 2000 Census data," Social Science Quarterly, 87(1), 91-109.

Munnell, A., G. M. B. Tootell, L. E. Browne and J. McEneaney (1996), "Mortgage lending in Boston, interpreting HMDA data," American Economic Review, March, 86(1), 25-53.

Myrdal, G. (1944), An American dilemma, the negro problem and modern democracy, Volume 1, New York, Harper & Row.

National Opinion Research Center (2005). "The 2003 Survey of Small Business Finances Methodology Report," mimeo, http://www.federalreserve.gov/pubs/oss/oss3/ssbf03/ssbf03home.html#ssbf03results.

Oaxaca, R. L. (1973), "Male-female wage differences in urban labor markets," International Economic Review, 14(3), October, 693-709.

Olson, P. D., V. S. Zuiker and C. P. Montalto (2000), "Self-employed Hispanics and Hispanic wage earners: differences in earnings," Hispanic Journal of Behavioral Sciences, 22, 114-130.

Parker, S. C. (2004), The Economics of Self-Employment and Entrepreneurship, Cambridge: Cambridge University Press.

Pickles, A. R. and P. N. O'Farrell (1987), "An analysis of entrepreneurial behavior from male work histories," Regional Studies, 21, 425-444.

Pitts, S. (2007). "Bad Jobs: the Overlooked Crisis in the Black Community," *New Labor Forum*, 16, no. 1: 39-47 (Winter).

Quinn, J. F. (1980), "Labor force participation patterns of older self-employed workers," Social Security Bulletin, 43, 17-28.

Reardon, E. (1998), "Are the self-employed misfits or superstars?," Working Paper, Rand Corporation.

Rees, H. and A. Shah (1986), "An empirical analysis of self-employment in the UK," Journal of Applied Econometrics, 1, 95-108.

Robb, A. (2012). "Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms," for SBA Office of Advocacy, April.

Robb, A. (2010). "Beyond the Late, Lamented Survey of Small Business Finances," Newsletter of the Association of Public Data Users, 33, no. 2, March/April.

Robles, B. J. and H. Cordero-Guzmán (2007), "Latino self-employment and entrepreneurship in the United States: an overview of the literature and data sources," The Annals of the American Academy of Political and Social Science, 613; 18-31.

Robson, M. T. (1998a), "The rise in self-employment amongst UK males," Small Business Economics, 10, no. 3, 199-212.

Robson, M. T. (1998b), "Self-employment in the UK regions," Applied Economics, 30, no. 3, March, 313-322.

Ruetschlin, C. and D. Asante-Muhammad (2015). The Retail Race Divide: How the Retail Industry Is Perpetuating Racial Inequality in the 21st Century, www.demos.org.

Schuetze, H. J. (1998), "Taxes, economic conditions and recent trends in male self-employment: a Canada-U.S. comparison," Working Paper, McMaster University, Hamilton, Ontario, Canada.

Taylor, M. P. (1996), "Earnings, independence or unemployment; why become self-employed?," Oxford Bulletin of Economics and Statistics, 58, 2, 253-265.

Tootell, G. M. B. (1996), "Turning a critical eye on the critics," Mortgage lending, racial discrimination and federal policy, edited by J. Goering and R. Wienk, Urban Institute Press, Washington, DC.

U.S. Chamber of Commerce (2005), Access to capital, what funding sources work for you?, U.S. Chamber of Commerce, Washington, DC.

Yezer, M. J., R. F. Phillips and R. P. Trost (1994), "Bias in estimates of discrimination and default in mortgage lending; the effects of simultaneity and self-selection," Journal of Real Estate Finance and Economics, 9(3), 196-215.

Wainwright, J. and C. Holt (2010), Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program, Transportation Research Board of the National Academies, NCHRP Report, Issue No. 644.

Wainwright, J. (2012), Report of Defendant Intervenor's Expert in *Geyer Signal, Inc. and Kevin Kissell v. Minnesota Department of Transportation, Thomas K. Sorel in his capacity as the Minnesota Commissioner of Transportation, and Mary Prescott in her capacity as Acting Director of the Office of Civil Rights*, United States District Court for the District of Minnesota, Case No. 0:11-cv-00321-JRT, December 30.

Wainwright, J. S. (2010), Report of Defendant's Expert in *Kevcon, Inc. v. The United States*, No. 09 625, United States Court of Federal Claims, April 29.

Wainwright, J. S. (2008), "Discrimination Facing Small Minority-Owned and Women-Owned Businesses in Commercial Credit Markets," Testimony before the United States Senate, Committee on Small Business and Entrepreneurship, Hearing on "Business Start-up Hurdles in Underserved Communities: Access to Venture Capital and Entrepreneurship Training," September 11.

Wainwright, J. S. (2000), Racial discrimination and minority business enterprise, evidence from the 1990 Census, *Studies in Entrepreneurship Series*, edited by S. Bruchey, New York, Garland Publishing.

Appendix A. Glossary

ACS. *The American Community Survey*. The Census Bureau's ACS is an ongoing survey covering the same type of information collected in the decennial census. The ACS is sent to approximately 3 million addresses annually, including housing units in all counties in the 50 states and the District of Columbia.

African American: African American or "Black" refers to an individual having origins in any of the Black racial groups of Africa.

Aggregation, aggregated: Refers to the practice of combining smaller groups into larger groups. In the present context, this term is typically used in reference to the presentation of utilization, availability, or related statistics according to industry. For example, statistics presented for the "Construction" sector as a whole are more aggregated than separate statistics for "Building Construction," "Heavy Construction," and "Special Trades Construction" industries. *See also* "Disaggregation, disaggregated."

Anecdotal evidence: Qualitative data regarding business owners' accounts of experiences with disparate treatment and other barriers to business success.

Asian or Asian/Pacific Islander: Refers to an individual having origins in the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islanders (except Native Hawaiians).

Availability: A term of art in disparity studies that refers to the percentage of a given population of businesses owned by one or more groups of interest. *See also* "Utilization," "Disparity Ratio."

Baseline Business Universe: The underlying population of business establishments that is used in an availability analysis. It is used as the denominator in an M/WBE availability measure.

Black: Or "African American" refers to an individual having origins in any of the Black racial groups of Africa.

Capacity: This term has no single definition. *See* Chapter III for discussion of this concept and its role in disparity studies.

Constitutional significance or **substantive significance:** An indication of how large or small a given disparity is. Under the EEOC's "four-fifths" rule, a disparity ratio is substantively significant if it is 0.8 or less on a scale of 0 to 1 or 80 or less on a scale of 1 to 100.

Decennial: Refers to the census conducted every decade by the U.S. Census Bureau. The last decennial census was conducted in 2010.

Demand-side: Refers to activity on the demand-side of an economic market. For example, when public agencies hire contractors or vendors they are creating market demand. *See also* "Supply-side."

Dependent variable: In a regression analysis, a variable whose value is postulated to be influenced by one or more other "independent" or "exogenous" or "explanatory" variables. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age, are the explanatory variables. *See also* "Independent variable," "Exogenous variable."

Disaggregation, disaggregated: Refers to the practice of splitting larger groups into smaller groups. In the present context, this term is typically used in reference to the presentation of utilization, availability, or related statistics according to industry. For example, statistics presented for "Building Construction," "Heavy Construction," and "Special Trades Construction" industries are more disaggregated than statistics for the "Construction" sector as a whole.

Disparate impact: A synonym for "disparity," often used in the employment discrimination litigation context. A disparate impact occurs when a "good" outcome for a given group occurs significantly less often than expected given that group's relative size, or when a "bad" outcome occurs significantly more often than expected.

Disparity ratio (or Disparity index): A measure derived from dividing utilization by availability and multiplying the result by 100. A disparity ratio of less than 100 indicates that utilization is less than availability. A disparity ratio of 80 or less can be taken as evidence of disparate impact. *See also* "Availability," "Constitutional significance," "Utilization."

Distribution. A set of numbers and their frequency of occurrence collected from measurements over a statistical population.

Econometrics, econometrically: Econometrics is the field of economics that concerns itself with the application of statistical inference to the empirical measurement of relationships postulated by economic theory. *See also* "Regression."

Endogenous variable: A variable that is correlated with the residual in a regression analysis or equation. Endogenous variables should not be used in statistical tests for the presence of disparities. *See also* "Exogenous variable."

ESBE. Emerging Small Business Enterprise. According to the City of San Antonio's SBEDA Ordinance, an ESBE is "A certified SBE corporation, partnership, sole proprietorship or other legal entity for the purpose of making a profit, which is independently owned and operated by individuals legally residing in, or that are citizens of, the United States or its territories, that is no more than five years old at the time of its original certification as an ESBE or whose annual revenues and number of employees are no greater than 25 percent of the small business size standards for its industry as established by the U.S. Small Business Administration, that is actively enrolled in the Mentor-Protégé Program for its industry, and meets the significant business presence requirements."

Exogenous variable: A variable that is uncorrelated with the residual in a regression analysis or equation. Exogenous variables are appropriate for use in statistical tests for the presence of disparities. *See also* "Endogenous variable," "Independent variable," "Dependent variable."

Hispanic: Refers to an individual of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.

Independent variable: In a regression analysis, one or more variables that are postulated to influence or explain the value of another, "dependent" variable. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age, are the independent or explanatory variables. *See also* "Dependent variable," "Exogenous variable."

MBE: Minority-Owned Business Enterprise. A business establishment that is 51 percent or more owned and controlled by racial or ethnic minorities (*i.e.,* African Americans, Hispanics, Asians/Pacific Islanders or Native Americans).

Mean: A term of art in statistics, synonymous in this context with the arithmetic average. For example, the mean value of the series 1, 1, 2, 2, 2, 4, 5 is 2.43. This is derived by calculating the sum of all the values in the series (*i.e.,* 17) and dividing that sum by the number of elements in the series (*i.e.,* 7).

Median: A term of art in statistics, meaning the middle value of a series of numbers. For example, the median value of the series 1, 1, 2, 2, 2, 4, 5 is 2.

Microdata or micro-level data: Quantitative data rendered at the level of the individual person or business, as opposed to data rendered for groups or aggregates of individuals or businesses. For example, Dun and Bradstreet provides micro-level data on business establishments. The Census Bureau's *Survey of Business Owners*, provides grouped or aggregated data on businesses.

Misclassification: In the present context, this term refers to a situation when a listing or directory of minority-owned or women-owned firms has incorrectly classified a firm's race or gender status. For example, when a firm listed as Hispanic-owned is actually African American-owned, or when a firm listed as nonminority female-owned is actually nonminority male-owned. *See also* "Nonclassification."

MSA: Metropolitan Statistical Area. As defined by the Federal Office of Management and Budget, contains at least one urbanized area that has a total population of 50,000 or more, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

M/WBE: Minority and/or Women-Owned Business Enterprise. A business establishment that is 51 percent or more owned and controlled by racial or ethnic minorities (*i.e.,* African Americans, Hispanics, Asians/Pacific Islanders or Native Americans) or women.

NAICS: North American Industry Classification System. The standard system for classifying industry-based data in the U.S. Superseded the Standard Industrial Classification (SIC) System in 1997. *See also* "SIC."

Nonclassification: In the present context, this term refers to a type of misclassification when a listing or directory has not identified firms as minority-owned or women-owned when, in fact, they are. *See also* "Misclassification."

NSSBF or SSBF. The *Survey of Small Business Finances*, formerly the *National Survey of Small Business Finances*, was produced jointly by the Federal Reserve Board and the U.S. Small Business Administration to provide a periodic statistical picture of small business finances. The SSBF was discontinued after 2003.

Native American: Refers to an individual having origins in any of the original peoples of North America, including Native Hawaiians.

Nonminority: Firms that are not M/WBEs, *i.e.,* not owned by African Americans, Hispanics, Asians/Pacific Islanders, Native Americans or nonminority females.

PUMS: Public Use Microdata Sample. Both the decennial census and the American Community Survey publish PUMS products.

p-value: A standard measure used to represent the level of statistical significance. It states the numerical probability that the stated relationship is due to chance alone. For example, a p-value of 0.05 or 5 percent indicates that the chance a given statistical difference is due purely to chance is 1-in-20. *See also* "Statistical Significance."

Regression, multiple regression, multivariate regression: A type of statistical analysis which examines the correlation between two variables ("regression") or three or more variables ("multiple regression" or "multivariate regression") in a mathematical model by determining the line of best fit through a series of data points. Econometric research typically employs regression analysis. *See also* "Econometrics."

SBEDA. The City of San Antonio's Small Business Economic Development Advocacy ordinance. See Chapter VIII for references and a detailed overview of the SBEDA ordinance.

SBE. Small Business Enterprise. According to the City of San Antonio's SBEDA Ordinance, an SBE is "A corporation, partnership, sole proprietorship or other legal entity for the purpose of making a profit, which is independently owned and operated by individuals legally residing in, or that are citizens of, the United States or its territories, and which meets the U.S. Small Business Administration (SBA) size standard for a small business in its particular industry(ies) and meets the significant business presence requirements as defined in the SBEDA Ordinance."

SBO: The Census Bureau's *Survey of Business Owners* statistical data series is devoted to capturing statistical information on the nation's minority-owned and women-owned business enterprises. Part of the five-year *Economic Census* series.

SIC: Standard Industrial Classification system. Prior to 1997, the standard system for classifying industry-based data in the U.S. Superseded by the North American Industry Classification System (NAICS). *See also* "NAICS."

Statistical significance: A statistical outcome or result that is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. *See also* "p-value."

SSBF. *See* NSSBF.

Stratified: In the present context, this refers to a statistical practice where random samples are drawn within different categories or "strata" such as time period, industry sector, or M/WBE status.

Substantive significance or **constitutional significance:** An indication of how large or small a given disparity is. Under the EEOC's "four-fifths" rule, a disparity ratio is substantively significant if it is 0.8 or less on a scale of 0 to 1.

Supply-side: Refers to activity on the supply-side of an economic market. For example, when new businesses are formed, other things equal, the supply of contractors to the market is increased. *See also* "Demand-side."

t-test, t-statistic, t-distribution: Often employed in disparity studies to determine the statistical significance of a particular disparity statistic. A t-test is a statistical hypothesis test based on a test statistic whose sampling distribution is a t-distribution. Various t-tests, strictly speaking, are aimed at testing hypotheses about populations with normal probability distributions. However, statistical research has shown that t-tests often provide quite adequate results for non-normally distributed populations as well.

Two-tailed (or two-sided) statistical test: A "two-tailed" test means that one is testing the hypothesis that two values, say u (utilization) and a (availability), are equal against the alternate hypothesis that u is not equal to a. In contrast, a one-sided test means that you are testing the hypothesis that u and a are equal against the alternate hypothesis u is not equal to a in only one direction. That is, that it is either larger than a or smaller than a.

Utilization: A term of art in disparity studies that refers to the percentage of a given amount of contracting and/or procurement dollars that is awarded or paid to businesses owned by one or more groups of interest. *See also* "Availability," "Disparity Ratio."

WBE: Women-Owned Business Enterprise: A business establishment that is 51 percent or more owned and controlled by nonminority women. In this Study, unless otherwise indicated, WBE refers to nonminority women-owned firms.

WSC: Refers to the West South Central census division in the NSSBF and SSBF data sets. The WSC includes the states of Texas, Arkansas, Louisiana and Oklahoma.

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Appendix B. Legal Standards for Government Race- and Gender-Conscious Contracting Programs

A. Overview of Strict Scrutiny

The applicable framework that establishes the legal standards governing race and gender conscious contracting programs is articulated in two seminal Supreme Court cases. In *City of Richmond v. J.A. Croson Company*[348] and *Adarand Constructors, Inc. v. Peña*,[349] the Supreme Court articulated that strict scrutiny would be the standard by which federal courts would review federal, state and local programs. Rather than permit generalized allegations of discrimination against minorities, the Supreme Court held that governments may adopt race-conscious programs only as a narrowly tailored remedy for a compelling interest of identified discrimination.[350]

5. Strict Scrutiny and *City of Richmond v. J.A. Croson Company*

The landmark case establishing that state and local government programs using race as a consideration must pass strict scrutiny is *Croson*. The strict scrutiny standard is comprised of two parts: (i) public entities must show a compelling state interest in establishing race or ethnicity specific programs, and (ii) such programs must be narrowly tailored to achieve that state interest. The strict scrutiny test calls for a "searching judicial inquiry into the justification," to determine whether the classifications are truly remedial or rather "motivated by illegitimate notions of racial inferiority or simple racial politics."[351]

In *Croson*, the Supreme Court struck down the City of Richmond's Minority Business Enterprise Plan, which required prime contractors that were awarded city construction contracts to subcontract at least 30 percent of the project to minority-owned business enterprises (MBEs). The Supreme Court affirmed the Court of Appeals' ruling that the plan was unconstitutional, finding that the City of Richmond had not presented sufficient evidence to support its compelling interest in remedying discrimination.

With respect to the first prong of the strict scrutiny standard, the Court emphasized that in order to establish a compelling interest, there must be "a strong basis in evidence" for the use of race conscious measures.[352] The Court also stated that "findings of societal discrimination will not suffice" to meet the requirements of the Equal Protection Clause of the Fourteenth

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

[349] *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995) ("*Adarand III*").

[350] This legal analysis is not an exhaustive discussion of all the case law or issues related to *Croson* and its progeny but rather highlights, with particular emphasis on the guidance from the Fifth Circuit, the major trends and status of the case law discussing the use of race and gender conscious measures in government contracting.

[351] *Croson*, 488 U.S. at 493. The Fifth Circuit Court of Appeals in *Fisher v. University of Texas,* 758 F.3d 633 (5th Cir. 2014) applied the strict scrutiny standard to the race conscious admissions program at the University of Texas. The Fifth Circuit wrote: "racial classifications are constitutional only if they are narrowly tailored to further compelling government interest." *Id.* at 642.

[352] *Id.* at 500 (citing *Wygant*, 476 U.S. at 277 (1986)).

Amendment.[353] In *Croson*, the Supreme Court opined that "there was no direct evidence of race discrimination on the part of the City" or "any evidence that the City's prime contractors had discriminated against minority-owned subcontractors."[354] The Supreme Court rejected all five of the predicate facts which the District Court relied on to uphold the City of Richmond's 30 percent quota.

Specifically, the Supreme Court reasoned that the predicate facts—the City's declaration that the ordinance was remedial, generalized assertions of past discrimination in the construction industry, the paucity of minority contractors in state and local trade associations and Congress' findings of the effects of past discrimination—did not singly or together provide a strong basis in evidence to justify race conscious measures. Finally, the City of Richmond's statistical evidence showed a statistical disparity between the *general population* in Richmond (which was 50 percent African American) and the awards of prime contracts to African American firms (0.67 percent of the awards). The Supreme Court held that this was an irrelevant statistical comparison and insufficient to raise an inference of discrimination.[355] Therefore, the City had failed to establish that it had a strong basis in evidence to support a compelling interest for its use of race-conscious remedies.

However, to avoid its holding from being construed to categorically eliminate all race-conscious efforts, the Court expressly stated that:

> "Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the city of Richmond had evidence before it that nonminority contractors were systematically excluding minority businesses from subcontracting opportunities it could take action to end the discriminatory exclusion. Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise…. 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."[356]

In suggesting what kind of evidence would support a proper statistical comparison, Justice O'Connor stated that a more relevant statistical test would compare 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. This, to the

[353] *Id*. at 494.

[354] *Id*. at 480.

[355] *Id.* at 499–500.

[356] *Id*. at 509.

Court, would support an inference of discrimination and thus satisfy the compelling interest requirement of the strict scrutiny test.[357]

With respect to the second prong, the *Croson* court ruled that the MBE program was not narrowly tailored to remedy discrimination, as the 30 percent quota could not be "tied to any injury suffered by anyone."[358] For example, the Court pointed to the fact that the program was extended to a long list of minorities, other than African Americans, such as Hispanics, Asians, American Indians, and Eskimos and Aleuts, for which the City had not established any inference of discrimination.[359] Finally, the Court pointed to Richmond's failure to consider race-neutral means to increase MBE participation.[360] In analyzing if the remedy implemented by the local or state government actor is narrowly tailored, the *Croson* Court identified several factors:

- Consideration of alternative, race-neutral means to increase M/WBE participation;[361]
- The flexibility of the program requirements, including the availability of waiver provisions;[362]
- The duration of the proposed relief;[363]
- The relationship of numerical participation goals to the availability of M/WBEs in the relevant market;[364]
- The impact of the relief on third parties;[365] and
- The overinclusiveness or underinclusiveness of the racial classifications.[366]

All of the above factors should be considered when developing a race-based program to ensure that the program is sufficiently narrowly tailored under the strict scrutiny standard. Guidance from the courts relating to the above are further discussed in later sections of this Appendix.

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[357] *Id.* at 503. The Fifth Circuit Court of Appeals in *W.H. Scott Construction Co., Inc. v. City of Jackson*, 199 F.3d. 206, 218, n.11. (5th Cir. 1999), although rejecting defendant's "belated reliance" on a previously unadopted disparity study that contained no data on the utilization of minority subcontractors, acknowledged that had the defendant relied on a more thorough disparity study, the "outcome today might be different."

[358] *Croson*, 488 U.S. at 508.

[359] *Id.*

[360] *Id.* at 506–507 (criticizing the City's motive in establishing a 30 percent quota as a remedy for past discrimination and concluded that the goal of the program was racial balancing).

[361] *Croson*, 488 U.S. at 507 (citing *United States v. Paradise*, 480 U.S. 149, 171 (1987)). *See also Adarand III*, 515 U.S. at 237-238.

[362] *Paradise*, 480 U.S. at 171. *See also Adarand VII,* 228 F.3d at 1177.

[363] *Croson*, 488 U.S. at 498, 509. *See also Paradise*, 480 U.S. at 171.

[364] *Paradise*, 480 U.S. at 171.

[365] *Id*.

[366] *Croson*, 488 U.S. at 506.

6. Intermediate Scrutiny

Since *Croson*, the U.S. Supreme Court has remained silent with respect to the appropriate standard of review for WBE programs. *Croson* was limited to the review of a race-conscious government contracting program. In other contexts, however, the Supreme Court has traditionally ruled that gender classifications are not subject to the rigorous strict scrutiny standard applied to racial classifications. Instead, gender classifications are subject to a lesser "intermediate" level of review.

Although the Supreme Court has not addressed the standard of review for gender based programs, a significant number of circuit courts of appeals have reviewed WBE programs using intermediate scrutiny, rather than the more exacting strict scrutiny standard of review.[367] The Fifth Circuit applies "intermediate scrutiny" and in *Scott* stated that "[b]ecause the parties focus our inquiry here on racial preferences, we will not address the analysis under intermediate scrutiny for sex based preferences."[368] In order to meet the burden of proof for an intermediate scrutiny standard of review, the state must show that the "classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives."[369] Unlike the strong basis in evidence requirements for racial classifications, gender classifications "can rest safely on something less" than a strong basis in evidence.[370]

In defining what constitutes something less than a strong basis in evidence, the Fourth Circuit recently agreed that the state defending the statute must present probative evidence that the rationale for enacting a gender preference rests on evidence, *i.e.*, informed analysis and not stereotypical generalizations.[371] Intermediate review requires the governmental entity to demonstrate an "important governmental objective" and a method for achieving this objective that bears a fair and substantial relation to the goal.[372]

The City of San Antonio, therefore, must meet the intermediate scrutiny standard for any gender conscious preferences in its contracting activities.

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[367] See, *e.g.*, *W.H. Scott Construction Co., Inc. v. City of Jackson*, 199 F.3d. 206 (5th Cir. 1999); *H.B. Rowe, Inc. v. Tippett*, 615 F.3d 233 (4th Cir. 2010); *Associated Util. Contractors of Md., Inc. v. Mayor & City Council of Balt*., 83 F. Supp. 2d 613, 620 (D. Md. 2000); *Eng'g Contractors Ass'n of S. Fla., Inc., v Metropolitan Dade Cnty*., 122 F.3d 895 (11th Cir. 1997); *Contractors Ass'n of E. Penn. v. City of Phila*., 91 F.3d 586 (3d Cir. 1996); *Coral Constr. Co. v. King Cnty*., 941 F.2d 910 (9th Cir. 1991). *But see Brunet v. City of Columbus*, 1 F.3d - 390, 404 (6th Cir. 1993) (gender based affirmative action plans subject to strict scrutiny).

[368] *W.H. Scott*, 199 F.3d 206, at 215 n.9.

[369] *Miss. Univ. for Women v. Hogan*, 458 U.S. 718, 724 (1982).

[370] *H.B. Row*e, 615 F.3d, at 242 (internal citations omitted).

[371] *Id.*

[372] *Id.*; *See also Craig v. Boren*, 429 U.S. 190, 198-99 (1976).

7. Strict Scrutiny and *Adarand Constructors, Inc. v. Peña*

While *Croson*'s holding applies to challenges to state and local government programs which classify based on race, *Adarand Constructors, Inc. v. Peña* extended *Croson*'s reach by holding that the strict scrutiny standard applies to federal programs using race-based classifications as well. Similar to the state and local government context, the federal government must also show a compelling interest for the use of race-conscious measures and the remedies used must be narrowly tailored to the compelling interest.

In *Adarand III*, a nonminority subcontractor that did not receive an award for the guardrail portion of a federal highway project brought an action against the Secretary of Transportation at the time, Federico Peña, alleging that the SBA 8(a) and 8(d) program preference for minorities violated the equal protection clause of the Fifth Amendment's Due Process Clause.[373] The prime contractor involved in this case had a clause in its contract with the government that it would receive a monetary incentive for hiring firms controlled by "socially and economically disadvantaged individuals" for its subcontracting work.[374] While the District Court ruled in favor of the federal government, and the Tenth Circuit Court of Appeals affirmed, the Supreme Court remanded the case to determine whether the challenged program met the strict scrutiny standard.

The Supreme Court noted that while *Croson* set strict scrutiny as the standard by which all race-based action by state and local governments would be analyzed, no such clear guidance was available in terms of what standard of review was required when such action was taken by the federal government. The Supreme Court ultimately concluded that strict scrutiny should also be applied to federal programs using race-conscious measures.[375]

In *Adarand Constructors, Inc. v. Slater*,[376] a case that followed the original remand of the *Adarand* case, the Tenth Circuit Court of Appeals noted that the compelling interest prong of strict scrutiny has already been established by Congress. Acknowledging Congress's power to address racial discrimination in the states, the Court of Appeals held that "we readily conclude that the federal government has a compelling interest in not perpetuating the effects of racial discrimination in its own distribution of federal funds and in remediation of the effects of past discrimination in the government contracting markets created by its disbursements."[377] The Tenth Circuit Court of Appeals drew this conclusion from a portion of Justice O'Connor's opinion in *Croson*, where she stated that "it is beyond dispute that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice."[378]

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[373] *Adarand III*, 515 U.S. at 209.

[374] *Id.*

[375] *Id.*

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

[377] *Id.* at 1165.

[378] *Croson*, 488 U.S. at 492. Several recent United States District Court opinions in the District of Columbia, the Northern District of Illinois, and the District of Minnesota have upheld the constitutionality of federal race-

8. Strict Scrutiny in the Fifth Circuit

There are a paucity of cases in the Fifth Circuit applying the *Croson* decision. A Fifth Circuit Court of Appeals decision that touched on strict scrutiny in government contracting is *W.H. Scott Construction Company v. City of Jackson.*[379] W.H. Scott Construction Company ("Scott") challenged the constitutionality of the City of Jackson's MBE program ("the MBE program").[380] Scott alleged that the City's MBE program violated the equal protection clause of the fourteenth amendment and therefore, was unconstitutional.[381]

In 1994, the City of Jackson retained a consultant to conduct a disparity study of the City's contracting activities. The disparity study concluded that the underutilization of African Americans and Asian Americans in City contracting was statistically significant.[382] The study recommended that the City set goals in the various industry trades for MBEs at 10-15 percent, depending on the construction project.[383] The City disagreed with the study's findings, however, and failed to adopt the study's conclusions. The City adopted an MBE goal of 15 percent, and began the process of selecting a new consultant to conduct a new disparity study.

In 1997, the City advertised a new construction project and set a 15 percent MBE participation goal on the project. Scott informed the Department of Public Works of the efforts to meet the subcontracting participation goals for the contract including copies of advertisements soliciting bids from M/WBE firms. Scott also informed the Department that the MBE subcontractors that the firm solicited were not the low bidders on the various scopes of work.[384] Scott Construction proposed WBE participation was 11.5 percent and the DBE participation was 1 percent.[385] The Department suggested that Scott increase the MBE participation rate by utilizing a minority vendor for supplies.[386]

The Department drafted a memorandum to the Mayor recommending that Scott be awarded the project despite the contractor's failure to meet the MBE goal. The memorandum also noted that Scott's bid exceeded the established budget by $33,600 and that the DBE participation rate was

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conscious contracting policies against both facial and as applied challenges. *See Rothe Development Inc., v. Department of Defense, et al.*, CA. 12-cv-0744(KBJ), 2015 U.S. Dist. LEXIS 72925 (D.D.C. 2015) (upholding constitutionality of Section 8(a) of the Small Business Act on a facial challenge); *Midwest Fence Corp., v. United States Department of Transportation, et al.,* CA. 10-C-5627, U.S. Dist. Lexis 36277 (N.D. Ill. 2014) (upholding constitutionality of the DBE program on a facial and as applied challenge); *Geyer Signal et al., v. Minnesota Department of Transportation et al.,* CA. 11-321, 2014 U.S. Dist. LEXIS 43945 (D. Minn. 2014) (upholding constitutionality of the DBE program on an as implemented challenge).

[379] *W.H. Scott Construction Co., Inc. v. City of Jackson*, 199 F.3d. 206 (5th Cir. 1999).

[380] *Id.* at 236.

[381] *Id.*

[382] *Id.* at 210.

[383] *Id.*

[384] *Id.* at 238.

[385] *Id.*

[386] *Id.*

only 1 percent. Scott subsequently informed the Department that it would not utilize a minority vendor to purchase project supplies. The Department, Mayor, and both the finance and legal departments recommended that Scott be awarded the contract and the matter was placed on the City Council agenda for consideration.[387]

The City Council voted to reject Scott's bid without comment. The City Council voted along racial lines with all five African American Council members voting to reject the bid and all four nonminority Council members voting to award the project to Scott.

Scott filed suit arguing that the rejection of the bid was racially motivated and alleged that the City's minority participation policy (the "Policy") discriminated against nonminority contractors in violation of the Equal Protection Clause. Both parties, Scott and the City, filed cross motions for summary judgment. The district court granted Scott's motion for summary judgment and held unconstitutional the City's MBE Program and Policy. The City appealed the grant of summary judgment and the district court's findings of fact to the Fifth Circuit Court of Appeals. The Circuit Court reviewed both the grant of summary judgment and the district court's findings of fact de novo.[388]

The *Scott* Court first addressed the issue of Scott's standing to challenge the constitutionality of the City's MBE program. The *Scott* Court opined that Scott "does not have standing to challenge every contract let by the City."[389] Scott only has standing to challenge contracts that it is "able and ready to bid" and, therefore, the court limited its analysis to city construction contracts. In conducting this analysis, the Fifth Circuit focused on the manner and extent of the Department's implementation of the MBE Program.[390]

The *Scott* Court applied a three prong test in order to establish standing. Scott must demonstrate: (1) an "injury in fact"; (2) a causal relationship between the injury and the challenged conduct; and (3) a likelihood that a favorable ruling will redress the injury. Accordingly, the Circuit Court ruled that Scott met all of the requirements to meet the standing test and concluded that Scott made an adequate showing of imminent harm. The *Scott* Court reasoned that as long as MBE preferences are used in the Department's construction contracts, Scott was threatened with imminent injury. Further, the other prerequisites for standing, causation and redressability, were also addressed because removal of the preferences would allow Scott to compete on an equal footing.[391]

The Circuit Court next turned its attention to the application of strict scrutiny to the facts of the case. First, the City contended that strict scrutiny should not be applicable to a policy that encourages "goals" rather than mandate a "quota". The Circuit Court rejected this argument because the distinction is immaterial. "Any one of these techniques induces an employer to hire

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[387] *Id.*

[388] *Id.* at 211.

[389] *Id.* at 212.

[390] *Id* at. 213.

[391] *Id.* at 215.

with an eye toward meeting a numerical target" and, therefore, will result in racial preferences being granted to individuals.[392]

Second, the City urged the *Scott* Court not to apply strict scrutiny because the Department's preference was a race-neutral classification.[393] The preference was based on "disadvantaged" status and, therefore, a lower standard of review should apply to such preferences. Although the Circuit Court agreed that race-neutral measures are not subject to strict scrutiny, the *Scott* Court rejected the notion that the City's preference was race-neutral, finding that the City's construction contracts contained explicit language to promote the "participation of minorities and women [to] be equitably distributed throughout the construction industry."[394] Further, the contract language created race-based presumptions that warrant the application of the strict scrutiny standard.

In applying the strict scrutiny standard, the Fifth Circuit highlighted *Croson's* emphasis on statistical evidence as well as the application of statistical evidence by other courts in determining whether the *Croson* evidentiary burden is satisfied.[395] The City argued that it was an error for the district court to ignore its statistical evidence supporting the use of race-based presumptions. The City pointed to the findings of the study that concluded:

> "White males and African Americans were the only two groups to obtain public works contracts. White males received 999 contracts, 94 percent of all contracts, and $264.9 million, 97.7 percent of all Public Works contract dollars. African Americans received 59 contracts, 6 percent, and $6.15 million, 2.3 percent of contract dollars. No women-owned firms or firms owned by other ethnic groups received contracts…."[396]

The *Scott* Court rejected the City's argument and noted that the City failed to adopt the study findings in 1995 and could not therefore rely upon the study in the pending litigation. The Circuit Court also found that the disparity study was not probative because it failed to include subcontracts in its analyses. For these reasons, the Court concluded that the City lacked the factual predicate necessary under the Equal Protection Clause and, therefore, upheld the lower court's decision.[397]

The City of San Antonio must therefore ensure that any disparity study it relies upon analyzes the relevant statistical pool of prime contract and subcontract activity, and it should adopt the

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[392] *Id.*

[393] *Id.*

[394] *Id.* at 216.

[395] *Id.* at 218 (citing *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1526-27 (10th Cir. 1994)).

[396] *Id.*

[397] *Id.* at 219.

disparity study's statistical findings before re-establishing any race-conscious goals for City contracting.[398]

9. Strict Scrutiny as Applied to the Disadvantaged Business Enterprise Program

In response to *Adarand III,* the U.S. Department of Transportation ("USDOT") revised its DBE regulations in 1999 in order to comply with the narrow tailoring requirement of strict scrutiny.[399] These revisions included the implementation of a personal net worth standard for DBE program eligibility and the requirement for setting race-neutral goals in conjunction with race-conscious goals. The USDOT initially created the set of DBE regulations in 1982, which outlined the affirmative action requirements for DBEs. First promulgated in conjunction with the Surface Transportation Assistance Act (the "Act"), the regulations (found at 49 C.F.R. Part 26) helped facilitate the Act's requirement of an aspirational goal of 10 percent of funds to be expended with small businesses owned and controlled by economically and socially disadvantaged individuals. This 10 percent DBE provision has been continued in various Acts that followed, such as the Transportation Equity Act for the 21st Century (1998) and the Intermodal Surface Transportation Efficiency Act of 1991.

Since the 1999 revision to the DBE regulations in response to *Adarand*, challenges to the revised regulations have arisen in several circuits—specifically in the Seventh, Eighth, and Ninth Circuits. In *Northern Contracting, Inc. v. State of Illinois Department of Transportation*,[400] the Seventh Circuit was asked to determine whether the Illinois Department of Transportation ("IDOT") violated the U.S. Constitution in administering a DBE Program designed to increase the participation of socially and economically disadvantaged individuals in Illinois highway construction subcontracts. IDOT, being a USDOT funding recipient, was required to comply with federal law pertaining to its DBE program. Northern Contracting, Inc. ("NCI"), a nonminority male-owned construction company, filed suit against IDOT, alleging that IDOT's program for compliance with the Transportation Equity Act ("TEA") was in violation of the Equal Protection Clause. The *Northern Contracting* Court concluded, even though not at issue, that the federal government had a compelling interest in remedying discrimination in highway construction.[401] The Seventh Circuit Court noted that NCI forfeited any challenge to the compelling interest prong of strict scrutiny, and instead NCI chose to focus on the narrow tailoring prong of the strict scrutiny test.

NCI argued that IDOT had to show its DBE program was narrowly tailored to remedy specific past discrimination by the State. The Seventh Circuit did not agree, however, and stated that the program was narrowly tailored to the compelling interest identified in remediating racial and gender discrimination in the federal highway construction market. Although NCI relied on a

[398] *Id*. at 218.

[399] "Participation by Disadvantaged Business Enterprises in Department of Transportation Programs," 64 Fed. Reg. 5096 (Feb. 2, 1999) (codified at 49 C.F.R. parts 23, 26).

[400] *Northern Contracting, Inc. v. Ill. Dep't of Transp*., 473 F.3d 715 (7th Cir. 2007).

[401] *Id.* at 720.

previous case, *Builders Association of Greater Chicago v. County of Cook*,[402] for its argument that IDOT had to demonstrate that its program was narrowly tailored to remedy specific past discrimination perpetrated by the State, the Circuit Court held that NCI's reliance on *Builders Association of Greater Chicago* was misplaced, as IDOT was acting as an "instrument" of federal policy and NCI could not collaterally attack the federal regulations through its challenge to IDOT's program.[403] Thus, although NCI wanted to use the *Builders Association* case in support of their claim that the IDOT's DBE program was unconstitutional, the plaintiff erred in attempting to translate the *Builders Association* holding onto a federally-mandated program.[404]

Another Circuit that has since vetted the revised DBE regulations is the Eighth Circuit in *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation,* a decision that the Eighth Circuit held that Congress had a "compelling interest" in enacting the DBE legislation, as it had a sufficient evidentiary basis to conclude that persistent racism and discrimination in highway subcontracting warranted a race-conscious procurement program.[405] Looking first to the DBE regulations, the Eighth Circuit held that there were five factors which demonstrated that the DBE program was narrowly tailored: (i) there was flexibility within the regulations, (ii) the goals were tied to each local market, (iii) there was an emphasis on using race-neutral measures, (iv) all small businesses that could show they were socially and economically disadvantaged could participate, and (v) the personal net worth standard of $750,000 for disadvantaged business owners limited the presumption of the minority business qualification.[406] The Eighth Circuit then turned its analysis to whether the DBE program was narrowly tailored as applied in Nebraska and Minnesota, with respect to their local labor markets. When the Circuit Court considered the program's application, it concluded that the program was narrowly tailored on its face because the revised DBE program affords grantee States substantial discretion in setting the DBE goals.[407] Thus, the Eighth Circuit rejected plaintiff's claim that the revised DOT regulations did not meet strict scrutiny standards.[408]

In contrast to the Eighth Circuit's and Seventh Circuit's affirmations that the DBE program was constitutional, the Ninth Circuit in *Western States Paving Co., Inc. v. Washington State Department of Transportation*[409] illustrated a case in which the revised DBE regulations were

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[402] *Id.* at 722 (citing *Builders Ass'n of Greater Chi. v. Cnty. of Cook*, 265 F.3d 642 (7th Cir. 2001)).

[403] *Id.* at 722.

[404] *Id.* Most recently, in *Midwest Fence Corp., v. United States Department of Transportation, et al.,* CA. 10-C-5627, U.S. Dist. Lexis 36277 (N.D. Ill. 2014), the IDOT DBE Program, as well as the Illinois State Toll Highway Authority DBE Program, was once again found to be constitution on both facial and as applied grounds. *See also* fn. 378.

[405] *Sherbrooke Turf v. Minn. Dep't of Transp.*, 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).

[406] *Id.* at 972. The Personal Net Worth threshold was raised from $750,000 to $1.32 million in 2011, to account for the effects of inflation since 1989. *See* 76 Fed. Reg. 5083 (January 28, 2011).

[407] *Id*. at 973.

[408] Most recently, the constitutionality of the Minnesota DOT's DBE Program was upheld against an as implemented challenge. *See Geyer Signal et al., v. Minnesota Department of Transportation et al.,* CA. 11-321, 2014 U.S. Dist. LEXIS 43945 (D. Minn. 2014). *See also* fn. 378.

[409] *W. States Paving Co., Inc., v. Wash. Dep't of Transp*., 407 F.3d 983 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

deemed to violate the Equal Protection Clause. In *Western States Paving*, the plaintiff requested declaratory judgment that the TEA DBE preference program was unconstitutional.[410] The State of Washington's Department of Transportation DBE program was subjected to the strict scrutiny standard in a two prong analysis, with the first part of the analysis considering whether the DBE legislation was facially constitutional, and the second of the Court's analysis examining whether the State of Washington's application of the DBE regulations was valid.

With respect to facial constitutionality aspect of analysis, the Court framed the issue to be whether the State of Washington carried its burden of demonstrating that the federal statute and regulations satisfied the strict scrutiny's exacting requirements. The Ninth Circuit, looking at the evidence weighed by Congress, stated that the federal government had a compelling interest for concluding that "discrimination within the transportation contracting industry hinders minorities' ability to compete for federally funded contracts."[411] The Ninth Circuit then conducted its analysis with respect to whether the TEA Program was narrowly tailored. The Court held that the 10 percent DBE goal in the statute was narrowly tailored to the DBE regulations, as the goal was merely aspirational and the regulation provided for each state to establish its own utilization goal based upon the proportion of DBEs in its transportation contracting market.[412] Because the DBE goals were customized by each state, the Circuit Court held that the DBE regulations were narrowly tailored to redress the effects of race and sex-based discrimination within this industry.

With respect to the validity of the application of the DBE regulations, the *Western States* Court looked to the utilization goal set by the State of Washington to determine whether this stated goal was unconstitutional. Although the State of Washington offered a statistic comparing the percentage of DBEs in the state (11.7%) to the percentage of funds awarded to them on race-neutral contracts (9%), the Ninth Circuit Court struck down this evidence as invalid, holding that the statistic was oversimplified and that it did not capture factors such as the capacity of the DBEs to undertake the contracted work.[413] Unlike the Seventh Circuit in *Northern Contracting*, the Ninth Circuit in *Western States Paving* held that Congressional evidence standing alone was not enough to support the strong basis in evidence requirement. Rather, the recipients of the federal funds must show a finding of discrimination separate and apart from the federal government's showing.[414] Thus, as the State of Washington failed to provide evidence of discrimination within its own contracting market, the Court held that the State failed to meet its burden of showing that its program was narrowly tailored to further Congress's compelling interest.[415]

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[410] *Id*. at 987.

[411] *Id*. at 992–993.

[412] *Id.* at 994–995.

[413] *Id.* at 1000.

[414] *Id.* at 1002-1003.

[415] *Id.* In light of *Western States Paving*, the USDOT published a memorandum titled "FY 2006 DBE Goal Setting Approval Process and DBE Program Plans" (December 21, 2005) to provide guidance to Recipients.

B. Compelling Interest

1. Burden of Proof

The party challenging the use of race-conscious measures bears the ultimate burden of proof throughout the course of the litigation—despite the government's obligation to produce a strong factual predicate to support its program.[416] The plaintiff must persuade the court that a program is constitutionally flawed by challenging the government's factual predicate for the program or by demonstrating that the program lacks a proper factual predicate.

Justice O'Connor explained the nature of the plaintiff's burden of proof in her concurring opinion in *Wygant v. Jackson Board of Education*.[417] She stated that, following the production of the factual predicate supporting the program:

> "[I]t is incumbent upon the non-minority [plaintiffs] to prove their case; they continue to bear the ultimate burden of persuading the court that the [government's] evidence did not support an inference of prior discrimination and thus a remedial purpose, or that the plan instituted on the basis of this evidence was not sufficiently 'narrowly tailored.'"[418]

Although it did not elaborate, in discussing the burden of proof in *W.H. Scott*, the Fifth Circuit wrote, "the burden of proof is on the plaintiff to prove its case by a preponderance of the evidence."[419] More recently, in *Rothe Development Corp. v. Department of Defense*, the Federal Circuit wrote that "the party challenging a statue bears the ultimate burden of persuading the court that it is unconstitutional."[420] In a facial challenge, the Plaintiff's burden is even heavier, as the Plaintiff must show that the statute cannot operate constitutionally under any circumstances.[421] *Rothe* is clear that a governmental entity seeking to employ race-conscious measures must show a strong basis in evidence.[422] The standard for appellate review in making the determination if the Plaintiff has met this burden is a question of law, subject to *de novo* review.[423] Applying this standard, the Federal Circuit upheld the Plaintiff's challenge to the

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[416] *Concrete Works of Colo., Inc. v. City & Cnty. of Denver*, 321 F.3d 950, 959 (10th Cir. 2003), *cert denied*, 540 U.S. 1027 (2003); *Coral Constr*, 941 F.2d at 921.

[417] *Wygant v. Jackson Board of Education*, 476 U.S. 267, 293 (1986).

[418] *Id.* at 293.

[419] *W.H. Scott*, 193 F.3d, at 219 (quoting the lower court's ruling).

[420] *Rothe Dev. Corp. v. Dep't of Def.,* 545 F.3d 1023, 1036 (Fed. Cir. 2008) (applying the law of the Fifth Circuit).

[421] *Id*. at 1032.

[422] *Id.* at 1036.

[423] *Id.* at 1035; ("[W]e will review the district court's grant of summary judgment de novo."). *See also Concrete Works of Colo., Inc. v. City & Cnty. of Denver,* 321 F.3d 950, 958 (10th Cir. 2003); *Rothe Dev. Corp. v. U.S. Dep't of Defense*, 262 F.3d 1306, 1323 (Fed. Cir. 2001); *Majeske v. City of Chicago*, 218 F.3d 816, 820 (7th Cir. 2000); *Contractors Ass'n of E. Pa., Inc. v. City of Philadelphia*, 91 F.3d 586, 596 (3d Cir. 1996) (Contractors Ass'n II). *But see Eng'g Contractors Ass'n of S. Fla. Inc. v. Metropolitan Dade County*, 122 F.3d 895, 903-04 (11th Cir. 1997) (reviewing the determination for clear error).

constitutionality of the statutory scheme because it persuaded the court that the factual predicate for the program was flawed.[424]

2. Strong Basis in Evidence

It is undisputed that remedying racial discrimination is a legitimate compelling interest for the City of San Antonio.[425] The procedural protocol established in city contracting by *Croson* imposes an initial burden of production upon the governmental entity to demonstrate that there is a compelling governmental interest and that the challenged MBE program is supported by a "strong basis in evidence," *i.e.*, documented evidence consistent with the presence of past or present discrimination.[426] The plaintiff then has the ultimate burden of proof to rebut defendant's evidence and to prove that defendant's evidence is not sufficiently strong to establish a compelling interest.

In *W.H. Scott*, the Fifth Circuit reiterated the evidentiary standards developed in *Croson*, writing:

> "[A] governmental entity can enact a race-conscious program to remedy past or present discrimination only where it has actively discriminated in its award of contracts or has been a 'passive participant' in a system of racial exclusion practiced by elements of the local construction industry. Therefore, the governmental entity must identify that discrimination with the particularity required by the Fourteenth Amendment, so that there is a strong basis in evidence for its conclusion that remedial action was necessary.[427]
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> "The [*Croson*] Court provided some guidance in determining what types of evidence would justify the enactment of a remedial scheme. … 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. … 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."[428]

The Fifth Circuit went on to recognize the importance of disparity studies in determining if a strong basis in evidence exists:

> "Given *Croson's* emphasis on statistical evidence, other courts considering equal protection challenges to minority-participation programs have looked to disparity indices,

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[424] *Rothe*, 545 F.3d at 1045.

[425] *Croson*, 488 U.S. at 503; *W.H. Scott*, 199 F.3d., at 217. *See also Dean v. City of Shreveport,* 438 F.3d 448, 454 (5th Cir. 2006) (government has a compelling interest in remedying its own past discrimination).

[426] *W.H. Scott*, 199 F.3d at 217. The Fifth Circuit in *Austin Black Contractors Ass'n v. City of Austin*, 78 F.3d 185, 186 (5th Cir. 1996) declined to extend *Croson* to mandate that the City adopt an affirmative action contracting program.

[427] *Id*. (internal quotations and citations omitted).

[428] *Id.* at 217-18.

> or to computations of disparity percentages, in determining whether *Croson's* evidentiary burden is satisfied. Disparity studies are probative evidence of discrimination because they ensure that the 'relevant statistical pool,' of qualified minority contractors is being considered."

The Court noted, however, that it did not endorse disparity studies as determinative in all conceivable cases, nor did it offer

> "… a precise mathematical formula to assess the quantum of evidence that rises to the Croson 'strong basis in evidence' benchmark. The sufficiency of a municipality's findings of discrimination in a local industry must be evaluated on a case-by-case basis."[429]

In the more recent *Rothe* case, the Federal Circuit ruled that the state does not have to conclusively prove past or present racial discrimination to establish a strong basis in evidence, but may meet its burden by relying on a statistically significant disparity between the availability of qualified, willing, and able minority subcontractors and their utilization by the governmental entity or its prime contractors.[430] Also more recently, the *Rowe* Court wrote that the state should corroborate its statistical evidence with "significant anecdotal evidence of racial discrimination."[431] Notwithstanding this requirement, as discussed above, the plaintiff bears the ultimate burden of proof to persuade the Court that the MBE program is unconstitutional.

The case law indicates that a disparity study should include the following types of evidence to support the strong basis of evidence requirement: direct statistical evidence, anecdotal evidence, and indirect statistical evidence ("passive participation"). Each of these types of evidence will be briefly discussed in turn, along with additional guidance that courts have given with respect to each type of evidence.[432]

3. Direct Statistical Evidence

The primary evidentiary requirement to show a compelling interest and allow an inference of discrimination is through statistics illustrating a disparity between the utilization of majority firms by the governmental entity compared to the utilization of minority firms. The disparity analysis results in a disparity index, or disparity ratio, that is then tested for its validity using a standard deviation analysis. However, in order for such statistics to be relevant, the state or local government must consider various factors, as discussed below.

Availability. In terms of defining "availability," M/WBEs are deemed to be "available" if they are ready, willing, and able to perform. In determining the available pool of M/WBEs it is

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[429] *Id*. at 218 n.11.

[430] *Rothe*, 545 F.3d at 1037-38.

[431] *Rowe*, 615 F.3d at 241.

[432] *See also* NCHRP Report 644, *Guidelines For Conducting A Disparity And Availability Study For The Federal DBE Program* (2010) [hereinafter "NCHRP Report"]. The Report presents guidelines to conduct a legally defensible Disparity or Availability study for the DBE program.

important to adopt an approach that is neither overinclusive or underinclusive of the universe of available firms. In *Associated General Contractors of America v. City of Columbus*,[433] the court rejected the use of census data as a measure of available firms and concluded that the approach "overstated the percentage of available firms."[434] An alternative approach to calculate the available pool is to use a bidders list, *i.e.*, to count *only* those firms that have bid on the entity's projects. The bidders list approach, although simple, may be criticized as underinclusive because it fails to count, for example, qualified firms in the marketplace that have failed to bid on projects because of discrimination.[435]

Finally, several courts have approved using a "Custom Census" of M/WBEs and/or DBEs as a proper method in calculating availability. In *Northern Contracting*, the plaintiff attempted to argue that IDOT miscalculated the number of DBEs by using a custom census instead of a count of the number of DBEs registered and prequalified by IDOT. However, the Seventh Circuit upheld the broader net of DBEs that was captured by the custom census, concluding that it reflected an attempt by IDOT to arrive at more accurate numbers than what would be possible through a use of the registered list.[436]

Capacity. The "able to perform" requirement of *Croson* was examined in *Concrete Works* by the Tenth Circuit Court of Appeals. The *Concrete Works* Court recognized that plaintiff identified a legitimate factual dispute regarding whether the City of Denver's percentage of M/WBE firms overstated their ability to perform. In discussing this argument, the Circuit Court recognized that M/WBE firms are generally smaller and less experienced than majority firms. This, however, was not the end of the inquiry because the Court of Appeals also recognized that "M/WBE construction firms are generally smaller and less experienced because of discrimination."[437]

The trial court in *Northern Contracting* also recognized the soundness of this approach to capacity. The District Court explained that "[a]lthough laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination…the indirect effects of discrimination may linger."[438] The *Northern Contracting* Court opined that DBEs' ability to compete for prime contracts "may be indirectly affected by discrimination in the subcontracting market or in the bonding and finance markets."[439]

Other courts have also recognized the elastic nature of the construction industry in which the firm's capacity expands and contracts based upon market demand. In *Concrete Works*, the City

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[433] *Associated General Contractors of America v. City of Columbus*, 936 F.Supp. 1363 (S.D. Ohio 1996) , *vacated by* 172 F.3d 411 (6th Cir. 1999) (vacated opinion not authority).

[434] *Id*. at 1390.

[435] *Id.* at 1389.

[436] 473 F.3d at 723.

[437] 321 F.3d at 981.

[438] *Northern Contracting, Inc. v. State of Ill.*, No. 00-C-4515, 2005 WL 2230195 at *20 (N.D. Ill. Sept. 8, 2005); *see also Builder's Ass'n of Greater Chicago*, 298 F.Supp. at 730-31 (discussing the hurdles faced by small firms in the construction industry).

[439] *Northern Contracting*, 2005 WL 2230195 at *20.

of Denver offered evidence at trial indicating that three employees is the median number of employees for all construction firms in the Denver Metropolitan Statistical Area and trial testimony that the number of permanent employees is not indicative of capacity because firms can hire temporary employees and rent equipment.[440] Similarly, the trial court in *North Shore Concrete and Assoc., Inc. v. City of New York,* rejected the Plaintiff's argument that the study over stated the number of available M/WBE firms because it did not take into consideration certain criteria such as the size of the firm. The *North Shore* Court concluded that firm size was not a proper indicator of capacity in determining the pool of available firms and that a small construction firm with an owner and only one employee, a secretary, had bid on construction projects worth more than one million dollars.[441]

Geographic Markets. In order to ensure the relevance of the disparity study, the geographic market of the firms must also be taken into account. While *Croson* did not directly spell out how the geographic market is to be determined, the Ninth Circuit in *Coral Construction Co. v. King County* stated that "an MBE program must limit its geographical scope to the boundaries of the enacting jurisdiction."[442] *Croson*, however, provided no such bright line rule for determining the local market area.

Although there are no cases directly on point in the Fifth Circuit, the recommended approach, adapted from the determination of markets in the context of the economics of antitrust, is to determine the geographic market by determining where the governmental entity is spending the majority of its contracting dollars. The NCHRP Report recommends that the relevant geographic market area encompass at least 75 percent of a governmental entity's contract and subcontract spending regardless of the jurisdictional boundaries of the entity.[443] Other courts have recognized the value of such an approach as well.[444]

Period of Time Covered by the Study. Additionally, it appears that the recommended study period be a minimum of three to a maximum of five to six years. The critical issue is that the study period be long enough in duration to provide a representative picture of the governmental entity's spending profile and create a sufficiently large sample for statistical analysis. In *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*,[445] the Third Circuit Court reviewed a study relied upon by the city using data for three fiscal years.[446] In *H.B. Rowe*

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[440] 321 F.3d at 981.

[441] *North Shore Concrete and Assoc., Inc. v. City of New York,* No. 94-CV-4017, 1998 WL 273027 at *25 (E.D.N.Y. April 12, 1998).

[442] *Coral Construction,* 941 F.2d at 919.

[443] NCHRP Report, *supra* note 72 at 29.

[444] *Concrete Works of Colorado v. City of Denver*, 36 F.3d 1513, 1528 (10th Cir. 1994) (local market defined as Denver MSA – 80 percent of construction and design dollars); George R. La Noue, *Standards for the Second Generation of* Croson-*Inspired Disparity Studies*, 26 URB. LAW. 495–96 & n.36 (1994) (geographic market defined as New York State and Eight Counties in New Jersey – comprising 90 percent of state dollars).

[445] *Contractors Ass'n*, 91 F.3d 586 (3d Cir. 1996).

[446] *Id*. at 594.

Company v. Tippett, the Fourth Circuit also affirmed North Carolina's program which was supported by a disparity study using data for a five-year period.[447]

Notwithstanding the above, if the data covered by the study dates back too far, then the court may find such data to be stale. In *Builders Association*, the City of Chicago used data from 1990 to justify the compelling need to continue the race-based program in 2003. The Court stated that "viewed through the prism of 2003" the present program could not have been considered "narrowly tailored."[448] This is in contrast to the district court's footnote in *Rothe Development Corp. v. U.S. Department of Defense*, where the District Court stated that "Congress cannot be expected to work in a vacuum" and that "Congress must have some sense of an institutional memory," rejecting plaintiff's objection to all evidence proffered by the Government that was prior to a certain year.[449]

Non-goal contract data. Furthermore, the use of non-goal contract data can be probative in supporting a finding of discrimination. In *Northern Contracting*, the State of Illinois introduced evidence regarding five percent of IDOT contracts that did not use DBE goals. On these "zero goal" contracts, DBEs received just 1.5 percent of the total value of the contracts. This, in conjunction with evidence relating to much higher levels of documented DBE availability and much higher levels of DBE utilization on contracts with DBE goals, led the district court to conclude that IDOT's program met the compelling evidence standard.

Adoption of Study by the Governmental Entity. Finally, the governmental entity should adopt the findings of disparity studies in order for a court to find such disparity study to be established as evidence. In *W.H. Scott Construction v. City of Jackson,* the City failed to establish a compelling interest, where the City did not adopt any particularized findings of discrimination in the construction industry and the disparity study commissioned by the City was not adopted by the City. [450] The Court in that case stated that "whatever probity the study's findings might have had on our analysis is of no moment" as the "City refused to adopt the study when it was issued in 1995, and its belated reliance is unpersuasive."[451] It appears that having the municipality or state agency adopt the study is an important element to establish the compelling interest component of the strict scrutiny standard, and failure to do so might be dispositive.

4. Passive Participation (Indirect Statistical Evidence)

A significant form of evidence that the government may present is passive participation in a discriminatory market area. In requiring that a state or local government show that it perpetuated the discrimination to be remedied by the M/WBE program, the *Croson* court noted that the

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[447] *Rowe,* 615 F.3d 233 (4th Cir. 2010). The NCHRP Report (p. 34) notes that median time period employed in most disparity and availability studies was 5 years and the average was 5.3 years. The studies introduced in the *Sherbrooke* and *Northern Contracting* cases both covered a five-year period.

[448] *Builders Ass'n,* 298 F. Supp. 2d at 742.

[449] *Rothe Development Corp. v. U.S. Dep't of Defense*, 324 F. Supp. 2d 840, 851 (W.D. Tex. 2004).

[450] *W.H. Scott Construction Co., Inc. v. City of Jackson*, 199 F.3d 206, 218-219.

[451] *Id.* at 218.

government need not be an active participant in the discrimination. Rather, the Court stated that passive participation would suffice in satisfying the Court's strict scrutiny standard.[452]

The difference between active and passive participation can be illustrated by this example: evidence of active participation would be if the governmental entity actively created barriers to exclude M/WBEs from contracting opportunities. Evidence of passive participation would be the government's infusion of tax dollars into a discriminatory industry. The *Croson* Court highlighted that a government could passively participate in private sector discrimination simply through its monetary involvement, stating "it is beyond dispute that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice."[453]

In *Concrete Works of Colorado v. City and County of Denver*,[454] the City of Denver relied upon marketplace data that measured discrimination in the overall Denver construction market to satisfy the *Croson* compelling interest standard. The City produced evidence at trial that it indirectly contributed to private sector discrimination by awarding public contracts to firms that discriminated against M/WBEs in their private sector work.[455] Concrete Works argued that marketplace data was irrelevant because only discrimination by the City or its prime contractors could demonstrate a strong basis in evidence.[456] The Tenth Circuit Court of Appeals in *Concrete Works* rejected this argument and noted that it did not read *Croson* or the Court's prior appellate rulings as requiring the municipality to identify an exact linkage between its award of public contracts and public discrimination.[457] Rather, the Court of Appeals sided with the City in stating that the City's strong basis in evidence of marketplace discrimination *can* assist in establishing its compelling interest.[458] The Court of Appeals held that the City's anecdotal evidence and evidence linking its spending practices to the evidence of marketplace discrimination sufficiently illustrated that it indirectly contributed to private discrimination and was a passive participant in private discrimination.

The District Court in *Builders Association of Greater Chicago v. City of Chicago*,[459] also found evidence of the lack of M/WBE participation on private construction contracts probative. In explaining the import of marketplace discrimination, the District Court opined:

> The anecdotal evidence indicates that M/WBEs are sometimes ignored because of racial, ethnic or gender animus or stereotyping. That cannot be quantified…The tendency to stick with the old and ignore the new affects all newer firms, not just M/WBEs. But here

[452] *Croson*, 488 U.S. at 509.

[453] *Id.* at 492.

[454] *Concrete Works of Colo., Inc. v. City & Cnty. of Denver*, 321 F.3d 950, 959 (10th Cir. 2003), *cert denied*, 540 U.S. 1027 (2003).

[455] *Id.* at 976.

[456] *Id.*

[457] *Id.* at 973.

[458] *Id.*

[459] *Builders Ass'n of Greater Chi. v. City of Chi.*, 298 F.Supp.2d 725 (N.D Ill. 2003).

> the vestiges of past discrimination linger on to skew the marketplace and adversely impact M/WBEs disproportionately as more recent entrants to the industry. Not too long ago white male firms had a near monopoly in the industry and they, therefore, are the beneficiaries of a continuing adherence to old relationships.[460]

The District Court affirmed that the City had a compelling interest not to perpetuate with tax dollars a market skewed by past discrimination that restricts M/WBE competition in the construction market.[461]

5. Anecdotal Evidence

Anecdotal evidence that reflects the personal experiences of individuals with discrimination in contracting opportunities is relevant because it goes to the question of whether observed statistical disparities are due to discrimination and not to some other nondiscriminatory cause or causes.[462] As observed by the Supreme Court, anecdotal evidence that is presented in a "pattern or practice" discrimination case could be persuasive because it "brought the cold [statistics] convincingly to life."[463] Testimony about discrimination by prime contractors, unions, bonding companies, suppliers and lenders has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects.[464] 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."[465] "[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."[466]

Although there is no case directly on point in the Fifth Circuit, recently the Fourth Circuit specifically rejected the notion that anecdotal testimony must be "verified" or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. "[The Plaintiff] offered 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' perceptions."[467] Likewise, the Tenth Circuit held that "Denver was not required to present

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[460] *Id.* at 738.

[461] *Id.*

[462] *Webster v. Fulton County*, 51 F.Supp.2d 1354, 1363 (N.D. Ga. 1999).

[463] *Int'l Bhd. of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

[464] *Adarand VII*, 228 F.3d at 1168-1172.

[465] *Concrete Works II*, 36 F.3d at 1520, 1530.

[466] *Engineering Contractors*, 122 F.3d at 926.

[467] *Rowe,* 615 F.3d at 249.

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."[468]

C. The Narrow Tailoring Analysis

Croson requires that an MBE program be "narrowly tailored" to remedy current evidence of discrimination.[469] The Fifth Circuit Court of Appeals in *Scott* declined to address the narrow tailoring prong of Croson because the City failed to establish a compelling interest.[470] Unlike *Scott*, the Fourth Circuit in *Rowe* applied the narrowly tailored analysis to determine if the North Carolina statutory scheme met constitutional scrutiny. The Fourth Circuit identified five factors to consider in evaluating whether the state statute was narrowly tailored:

1. The necessity of the policy and the efficacy of alternative race neutral policies;
2. The planned duration of the policy;
3. The relationship between the numerical goal and the percentage of minority group members in the relevant population;
4. The flexibility of the policy, including waivers if the goal cannot be met; and
5. The burden of the policy on innocent third parties.[471]

First, there was ample evidence that the state considered race-neutral options, including the state's Small Business Enterprise Program and the race-neutral options outlined in the federal DBE program. "Indeed Rowe identifies no viable race-neutral alternatives that North Carolina has failed to consider or adopt."[472]

Second, under duration of the policy, the *Rowe* court found elements that were particularly compelling in showing that the state program was narrowly tailored: (i) the program set a specific expiration date, and (ii) the program required that a new disparity study be conducted every five years. Other cases also instruct that "narrowly tailored" means that the remedial program should include these durational limitations.[473] With a core purpose of the Fourteenth

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[468] *Concrete Works*, 321 F.3d at 989.

[469] *See Croson*, 488 U.S. at 509-10.

[470] *W.H. Scott*, 199 F.3d at 291.

[471] *Rowe,* 615 F.3d at 252. See also *Dean v. Shreveport*, 438 F.3d at 458 (applying the same five factors in public employment to ensure race-conscious measures are narrowly tailored).

[472] *Id*.

[473] *Western States Paving*, 407 F.3d at 994 (holding that the Transportation Equity Act was subject to reauthorization by Congress); *Sherbrooke,* 345 F.3d at 972 (holding that a state was able to terminate its DBE program if it met its annual overall goal through race-neutral means for two consecutive years); *Associated General Contractors of Ohio v. Drabik*, 214 F.3d 730, 738 (6th Cir. 2000) (holding that a DBE program was not narrowly tailored because it did not have a sunset provision or expiration).

Amendment being to eliminate all governmentally imposed discrimination based on race, such race-conscious policies must be limited in time.[474]

Third, the state took concrete steps to ensure that the participation goals were related to the percentage of minority subcontractors in the relevant market.[475] The "project by project basis" goal-setting process accurately reflects the pool of available minority owned businesses.[476] The *Rowe* court summarized the process as follows:

> First, the Department generates a report detailing the type of work that it anticipates subcontractors will perform on a particular project. Next, a goal-setting committee consults its database of certified minority contractors in the relevant geographic area capable of performing those types of work. Consulting the report, the database, and its own members' experience, the committee then sets a project-specific participation goal. Notably, this goal-setting process does not mechanically require minority participation; in fact, between July 2002 and February 2004, the committee set a goal of zero percent minority participation on approximately 10 percent of projects.[477]

Accordingly, the court found that the state had satisfied the third factor in the narrowly tailored analysis.

Fourth, *Rowe* also demonstrated the importance of waivers if project specific contract goals are not met in determining whether race-based programs are narrowly tailored. The *Rowe* court relied upon the "lenient standard and flexibility of the 'good faith' requirement" of the North Carolina statutory scheme. The waiver component of the state's program only rejected 13 of 878 good faith applications including, *Rowe*, for failing to meet the Good Faith Efforts requirement.[478]

In *Sherbrooke*, the court pointed to the DBE program's "substantial flexibility" and the fact that a state could obtain waivers and exemptions from any requirement and not be penalized for a good faith failure to meet its overall goals.[479] The flexibility to waive contract specific goals supports the court's findings that such race-conscious programs are narrowly tailored and thus constitutional.

Fifth, the *Rowe* court also rejected the plaintiff's two arguments that the state's contracting program places a substantial burden on prime contractors.[480] There was not an onerous solicitation and follow-up requirement because there was no need for additional employees to

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[474] *Id.* at 994.

[475] *Rowe,* 615 F.3d at 253.

[476] *Id.*

[477] *Id.*

[478] *Id.*

[479] *Sherbrooke,* 345 F.3d at 972.

[480] *Rowe,* 615 F.3d at 254.

dedicate to the tasks.[481] Rowe offered no evidence to support its contention that complying with the state's program required it to subcontract work that it could perform substantially cheaper on its own.[482] The state, on the other hand, offered evidence from the 2004 study that prime contractors need not subcontract work they can self-perform."[483]

Finally, *Rowe* contended that the North Carolina statutory scheme was overinclusive and therefore not narrowly tailored.[484] As held by the *Rowe* court, "the statute expressly limits relief to those racial or ethnicity classifications…that have been subjected to discrimination in the relevant marketplace and that have been adversely affected in their ability to obtain contracts with the Department."[485]

In summary, the *Rowe* court found the North Carolina statutory scheme narrowly tailored after reviewing all of the factors outlined above.[486]

D. Conclusion

The decision of the U.S. Supreme Court in the *Croson* and *Adarand* cases changed the legal landscape for affirmative action in public contracting programs. The U.S. Supreme Court altered the authority of state and local governments and the federal government to institute remedial race-conscious public contracting programs. This Appendix has examined what *Croson*, *Adarand*, and their progeny, require for the City of San Antonio to continue to pursue a constitutional race- and gender-conscious public contracting program. As discussed above, a disparity study must provide the factual predicate for a race- and/or gender-conscious affirmative action contracting program. Depending on the findings of its own Disparity Study, the City of San Antonio may consider race and gender-based remedies in its contracting activity.

E. List of Authorities

Cases

Adarand Constructors, Inc. v. Federico Peña, 515 U.S. 200 (1995) ("*Adarand III*").

Adarand Constructors, Inc. v. Slater, 228 F3d 1147 (10th Cir., 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534 U.S. 103 (2001) ("*Adarand VII*").

Associated General Contractors of America v. City of Columbus, 936 F.Supp. 1363 (S.D. Ohio 1996), *vacated by* 172 F.3d 411 (6th Cir. 1999) (vacated opinion not authority).

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[481] *Id.*

[482] *Id.*

[483] *Id.*

[484] *Id*

[485] *Id.*

[486] *Id.*

Associated General Contractors of Ohio v. Drabik, 50 F.Supp. 741 (S.D. Ohio 1999).

Austin Black Contractors Ass'n v. City of Austin, 78 F.3d 185 (5th Cir. 1996).

Brunet v. City of Columbus, 1 F3d 390 (6th Cir. 1993).

Builders Association of Greater Chicago v. City of Chicago, 298 F.Supp.2d 725 (N.D. Ill. 2003).

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

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

Concrete Works of Colorado v. City and County of Denver, 321 F.3d 950, *cert. denied*, (10th Cir. 2003) (*Concrete Works II*).

Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 91 F.3d 586 (3rd Cir. 1996).

Coral Construction Co. v. King County, 941 F.2d 910 (9th Cir. 1991), *cert. denied*, 112 S.Ct. 875 (1992).

Craig v. Boren, 429 U.S. 190 (1976).

Dean v. City of Shreveport, 438 F.3d 448 (5th Cir. 2006).

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

Geyer Signal et al., v. Minnesota Department of Transportation et al., CA. 11-321, 2014 U.S. Dist. LEXIS 43945 (D. Minn. 2014).

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

Majeske v. City of Chicago, 218 F.3d 816 (7th Cir. 2000).

Michigan Road Builders Association v. Milliken, 834 F.2d 583 (6th Cir. 1987).

Midwest Fence Corp., v. United States Department of Transportation, et al., CA. 10-C-5627, U.S. Dist. Lexis 36277 (N.D. Ill. 2014).

Mississippi University for Women v. Hogan, 458 U.S. 718 (1982).

Monterey Mechanical Co. v. Pete Wilson, et al., 125 F.3d 702 (9th Cir. 1997).

Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715 (7th Cir. 2007).

Northern Contracting, Inc. v. Illinois Department of Transportation, No. 00-C-4515, 2005 WL 2230195 (N.D. Ill. Sept. 8, 2005).

North Shore Concrete and Assoc., Inc. v. City of New York, No. 94-CV-4017, 1998 WL 273027 (E.D.N.Y. April 12, 1998).

H. B. Rowe, Inc. v. Tippett, et al., 615 F.3d 233 (4th Cir. 2010).

Rothe Development Corp. v. U.S. Department of Defense, 262 F.3d 1306 (Fed. Cir. 2001).

Rothe Development Corp. v. U.S. Department of Defense, 324 F.Supp.2d 840 (W.D. Tex. 2004).

Rothe Development Inc., v. Department of Defense, et al., CA. 12-cv-0744(KBJ), 2015 U.S. Dist. LEXIS 72925 (D.D.C. 2015).

Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d 964 (8th Cir. 2003), *cert. denied,* 124 S.Ct. 2158 (2004).

United States v. Paradise, 480 U.S. 149, 171 (1987).

W.H. Scott Construction Co., Inc. v. City of Jackson, 199 F.3d 206 (5th Cir. 1999).

Webster v. Fulton County, 51 F.Supp.2d 1354 (N.D. Ga. 1999).

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

Wygant v. Jackson Board of Education, 476 U.S. 267 (1986).

Federal Regulations

64 Fed. Reg. 5096 (Feb. 2, 1999).

49 C.F.R. Part 23.

49 C.F.R. Part 26.

Reports

La Noue, G. (1994). *Standards for the Second Generation of* Croson-*Inspired Disparity Studies*, 26 URB. LAW. 495–96 & n.36.

Wainwright, J. and C. Holt (2010), *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, Transportation Research Board of the National Academies, NCHRP Report, Issue No. 644.

Appendix C. Master M/WBE Directory Sources

A. Entities with lists of M/WBE firms that were duplicative of previously collected lists

Alamo Community Colleges
AT&T Center
Brooks City Base (Formerly Brooks Air Force Base)
City of New Braunfels
HEB Grocery Company
Port San Antonio
SA Housing Authority
Sams Contracting Consulting & Training
San Antonio Independent School District
San Antonio Water Systems
SpawGlass Contractors Inc.
Toyota Texas Manufacturing
University Health Systems For Bexar
UT Health Science Center San Antonio
Via Metro Transit
Zachary Construction Corporation

B. Entities that had no directory, or their directory did not identify race and sex

Alamo Heights Chamber of Commerce
American GI Forum National Veterans Outreach
American Indians in Texas at the Spanish Colonial Missions
Atascosa County
Bandera County
Bandera County Chamber Of Commerce
Bulverde/Spring Branch Area Chamber of Commerce
Canyon Lake Chamber of Commerce
City of Schertz
City of Seguin
Comal County
Greater Boerne Chamber of Commerce
Guadalupe County
Guadalupe-Blanco River Authority
Hispanic Contractors Association De San Antonio
Kendall County
Kendall County Economic Development Corporation
Medina County
National Association of Women in Construction
New Braunfels Chamber of Commerce
New Braunfels ISD

North San Antonio Chamber of Commerce
Northside Independent School District
SA Water Authority
Saber Research Institute
San Antonio Chamber of Commerce
San Antonio Economic Development Foundation
San Antonio Hispanic Chamber of Commerce
San Antonio Women's Chamber of Commerce
Schertz Chamber of Commerce
Schertz Economic Development
Seguin Chamber of Commerce
Texas Association of Mexican American Chambers of Commerce
University of Texas San Antonio
Wilson County
Women Contractors Association

C. Entities that were non-responsive to repeated contacts

Accion Texas
Alamo Asian American Chamber of Commerce
Alamo City Chamber of Commerce DBA Alamo City Black Chamber of Commerce
American Indian Chamber of Commerce of Texas
Bandera Business Association
CPS Energy
Greater San Antonio Chinese Chamber of Commerce
Lancer Corp
Methodist Healthcare Systems
National Association of Women Business Owners
National Women Business Owners Corporation
Native American Chamber of Commerce
New Braunfels Women's Chamber of Commerce
San Antonio Minority Business Development Agency (Part of UTSA Institute for Economic Development)
Seguin-Guadalupe County Hispanic Chamber of Commerce
St. Mary's University
Texas Association of Historically Underutilized Businesses
Virtual Builders Exchange
West San Antonio Chamber of Commerce

D. Entities that refused to provide the requested information

African American Chamber of Commerce of San Antonio
Southwest Minority Supplier Development Council
Southwest Research Institute
USAA

Appendix D. Detailed Utilization, Availability & Disparity Tables

This appendix presents M/WBE utilization, availability, and disparity statistics analogous to those presented in Chapter VI, Tables 6.4 and 6.5, according to detailed NAICS Industry Groups.[487]

Ten tables each are presented; Within each set, there are two each for Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies, respectively. Within each procurement category, the first table uses dollars awarded as the metric of utilization and the second table uses dollars paid.

[487] Comparable statistics were calculated at the NAICS Industry level as well (five-digit and six-digit NAICS). In the interest of space, these results are not reported here. Four-digit NAICS codes are most comparable to four-digit Standard Industrial Classification (SIC) codes, which were used prior to the advent of the NAICS system.

Table AD.1. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Construction Contracting (Dollars Awarded)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Nonresidential Building Construction (NAICS 2362)			
African American	0.24	2.11	11.45
Hispanic	5.27	26.42	19.95
Asian/Pacific Islander	0.10	2.11	4.63
Native American	0.00	0.42	0.00****
Minority	5.61	31.07	18.06**
Nonminority female	3.05	8.69	35.13
M/WBE total	8.66	39.76	21.79**
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.01	0.01	76.23
Hispanic	26.60	19.58	
Asian/Pacific Islander	0.14	0.08	
Native American	0.00	0.03	0.00
Minority	26.75	19.71	
Nonminority female	3.20	3.85	83.22
M/WBE total	29.95	23.56	
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.03	1.44	2.06***
Hispanic	42.60	48.49	87.85
Asian/Pacific Islander	1.33	0.90	
Native American	0.04	2.26	1.99****
Minority	44.01	53.09	82.88
Nonminority female	19.50	11.58	
M/WBE total	63.51	64.67	98.20
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.81	0.00****
Hispanic	13.02	42.49	30.64****
Asian/Pacific Islander	1.55	0.04	
Native American	1.45	1.72	84.42
Minority	16.02	46.07	34.77****
Nonminority female	3.82	11.93	32.04****
M/WBE total	19.84	57.99	34.21****
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	1.84	1.16	
Hispanic	19.72	18.99	
Asian/Pacific Islander	0.20	4.08	4.90****
Native American	0.00	3.13	0.00****
Minority	21.77	27.36	79.57
Nonminority female	0.93	9.70	9.58****
M/WBE total	22.70	37.06	61.25****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.11	1.44	8.00
Hispanic	18.51	22.97	80.57
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	18.62	24.41	76.30
Nonminority female	3.52	18.86	18.68****
M/WBE total	22.15	43.27	51.18****
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00*
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00*
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Architectural and Structural Metals Manufacturing (NAICS 3323)			
African American	0.00	0.00	
Hispanic	6.17	34.04	18.12
Asian/Pacific Islander	0.59	3.43	17.23
Native American	0.00	3.43	0.00****
Minority	6.76	40.90	16.52
Nonminority female	0.00	13.30	0.00****
M/WBE total	6.76	54.20	12.47***
Building Finishing Contractors (NAICS 2383)			
African American	0.18	0.25	71.55
Hispanic	13.02	50.80	25.63****
Asian/Pacific Islander	6.18	2.28	
Native American	3.41	0.95	
Minority	22.79	54.28	41.99****
Nonminority female	22.58	8.18	
M/WBE total	45.37	62.46	72.64***
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Cement and Concrete Product Manufacturing (NAICS 3273)			
African American	0.00	0.00	
Hispanic	8.00	12.39	64.54
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	8.00	12.39	64.54
Nonminority female	13.23	8.30	
M/WBE total	21.23	20.69	
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	12.28	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.28	0.00****
Nonminority female	0.00	26.34	0.00****
M/WBE total	0.00	38.62	0.00****
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	3.09	13.86	22.29*
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	3.09	13.86	22.29*
Nonminority female	13.84	22.78	60.75
M/WBE total	16.93	36.65	46.20**
Other Heavy and Civil Engineering Construction (NAICS 2379)			
African American	0.00	0.00	
Hispanic	48.66	17.34	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	48.66	17.34	
Nonminority female	4.89	6.45	75.77
M/WBE total	53.55	23.79	
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00***
Hispanic	73.66	48.15	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	73.66	48.56	
Nonminority female	2.57	9.52	26.99****
M/WBE total	76.23	58.08	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Specialized Freight Trucking (NAICS 4842)			
African American	0.26	2.70	9.76
Hispanic	77.09	22.47	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	77.36	25.16	
Nonminority female	0.82	18.81	4.38****
M/WBE total	78.18	43.97	
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)			
African American	0.00	0.00	
Hispanic	2.28	23.45	9.73**
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.28	23.45	9.73**
Nonminority female	0.92	9.17	10.06
M/WBE total	3.20	32.62	9.82****
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00****
Nonminority female	0.00	23.00	0.00****
M/WBE total	0.00	65.00	0.00****
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	11.30	28.57	39.54**
M/WBE total	11.30	28.57	39.54**
Glass and Glass Product Manufacturing (NAICS 3272)			
African American	0.00	0.00	
Hispanic	0.00	18.18	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	18.18	0.00****
Nonminority female	81.44	45.45	
M/WBE total	81.44	63.64	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.02	0.00****
Hispanic	0.00	36.07	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.09	0.00****
Nonminority female	0.00	12.02	0.00****
M/WBE total	0.00	53.11	0.00****
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	2.20	0.00****
Hispanic	2.36	26.37	8.93****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.36	28.57	8.25****
Nonminority female	97.11	22.99	
M/WBE total	99.47	51.56	
Remediation and Other Waste Management Services (NAICS 5629)			
African American	0.00	13.30	0.00****
Hispanic	2.45	2.16	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.45	15.46	15.83
Nonminority female	1.06	25.52	4.16****
M/WBE total	3.51	40.98	8.56****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	29.25	8.43	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	29.25	8.43	
Nonminority female	6.95	31.02	22.41****
M/WBE total	36.20	39.45	91.77
Lessors of Real Estate (NAICS 5311)			
African American	0.00	4.91	0.00
Hispanic	0.00	35.66	0.00****
Asian/Pacific Islander	0.00	0.37	0.00
Native American	0.00	0.00	
Minority	0.00	40.94	0.00****
Nonminority female	0.00	12.76	0.00****
M/WBE total	0.00	53.71	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Motion Picture and Video Industries (NAICS 5121)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	8.33	0.00****
M/WBE total	0.00	8.33	0.00****
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	0.00	1.86	0.00****
Hispanic	19.04	11.58	
Asian/Pacific Islander	0.00	0.30	0.00
Native American	0.00	0.00	
Minority	19.04	13.74	
Nonminority female	22.04	14.00	
M/WBE total	41.08	27.74	
Residential Building Construction (NAICS 2361)			
African American	0.00	0.21	0.00
Hispanic	48.18	40.92	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	48.18	41.13	
Nonminority female	0.00	0.00	
M/WBE total	48.18	41.13	
Printing and Related Support Activities (NAICS 3231)			
African American	0.00	1.88	0.00***
Hispanic	0.00	27.75	0.00****
Asian/Pacific Islander	0.00	2.36	0.00***
Native American	0.00	0.00	
Minority	0.00	31.98	0.00****
Nonminority female	99.86	12.35	
M/WBE total	99.86	44.34	
Other Support Activities for Transportation (NAICS 4889)			
African American	0.00	13.42	0.00****
Hispanic	94.44	31.23	
Asian/Pacific Islander	0.00	6.30	0.00****
Native American	0.00	0.00	
Minority	94.44	50.95	
Nonminority female	0.00	12.06	0.00****
M/WBE total	94.44	63.01	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)			
African American	0.00	1.12	0.00
Hispanic	0.00	17.49	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	4.25	0.00
Minority	0.00	22.86	0.00****
Nonminority female	0.00	16.14	0.00****
M/WBE total	0.00	39.00	0.00****
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	21.21	0.00****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	21.21	0.00****
Nonminority female	1.76	12.12	14.56
M/WBE total	1.76	33.33	5.29****
Other Nonmetallic Mineral Product Manufacturing (NAICS 3279)			
African American	0.00	0.00	
Hispanic	67.51	0.00	
Asian/Pacific Islander	0.00	14.29	0.00****
Native American	0.00	0.00	
Minority	67.51	14.29	
Nonminority female	0.00	0.00	
M/WBE total	67.51	14.29	
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.18	0.00	
Hispanic	71.68	16.59	
Asian/Pacific Islander	0.00	1.49	0.00****
Native American	0.00	5.40	0.00****
Minority	71.86	23.48	
Nonminority female	8.83	27.38	32.24***
M/WBE total	80.68	50.86	
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	7.14	0.00****
Asian/Pacific Islander	0.00	15.71	0.00****
Native American	0.00	0.00	
Minority	0.00	22.86	0.00****
Nonminority female	0.00	31.43	0.00****
M/WBE total	0.00	54.29	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Miscellaneous Manufacturing (NAICS 3399)			
African American	0.00	5.67	0.00****
Hispanic	0.00	30.19	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	3.50	0.00****
Minority	0.00	39.36	0.00****
Nonminority female	10.65	13.09	81.32
M/WBE total	10.65	52.45	20.30****
Other Wood Product Manufacturing (NAICS 3219)			
African American	0.00	0.00	
Hispanic	0.19	30.23	0.64****
Asian/Pacific Islander	20.01	0.00	
Native American	0.00	6.98	0.00****
Minority	20.20	37.21	54.29
Nonminority female	27.58	18.60	
M/WBE total	47.78	55.81	85.61
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00****
Hispanic	10.56	1.37	
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	10.56	10.45	
Nonminority female	0.00	25.71	0.00****
M/WBE total	10.56	36.16	29.21***
Foundries (NAICS 3315)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	15.30	19.41	78.83
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	15.30	19.41	78.83
Nonminority female	0.00	5.88	0.00*
M/WBE total	15.30	25.29	60.50

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Activities Related to Real Estate (NAICS 5313)			
African American	0.00	0.00	
Hispanic	100.00	7.14	
Asian/Pacific Islander	0.00	23.21	0.00****
Native American	0.00	0.00	
Minority	100.00	30.36	
Nonminority female	0.00	0.00	
M/WBE total	100.00	30.36	
Communications Equipment Manufacturing (NAICS 3342)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	11.11	0.00****
Native American	0.00	0.00	
Minority	0.00	11.11	0.00****
Nonminority female	0.00	11.11	0.00****
M/WBE total	0.00	22.22	0.00****
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.96	0.00****
Hispanic	0.00	23.84	0.00****
Asian/Pacific Islander	0.00	8.09	0.00****
Native American	0.00	3.54	0.00****
Minority	0.00	42.43	0.00****
Nonminority female	99.16	12.20	
M/WBE total	99.16	54.63	
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.81	0.00****
Hispanic	0.00	36.07	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	40.88	0.00****
Nonminority female	0.00	12.02	0.00****
M/WBE total	0.00	52.90	0.00****
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	0.00	34.87	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00****
Minority	0.00	36.54	0.00****
Nonminority female	40.89	13.72	
M/WBE total	40.89	50.26	81.36

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Waste Treatment and Disposal (NAICS 5622)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	10.00	0.00****
Minority	0.00	30.00	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	30.00	0.00****
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00****
Hispanic	0.00	36.16	0.00****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00****
Nonminority female	0.00	12.08	0.00****
M/WBE total	0.00	53.07	0.00****
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)			
African American	0.00	3.51	0.00****
Hispanic	0.73	13.42	5.45*
Asian/Pacific Islander	0.00	1.45	0.00
Native American	0.00	0.00	
Minority	0.73	18.38	3.98***
Nonminority female	12.86	15.71	81.83
M/WBE total	13.59	34.10	39.86*
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)			
African American	0.00	0.00	
Hispanic	0.00	11.11	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	11.11	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	11.11	0.00****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00****
Asian/Pacific Islander	0.00	7.16	0.00****
Native American	0.00	0.00	
Minority	0.00	15.89	0.00****
Nonminority female	0.00	4.69	0.00****
M/WBE total	0.00	20.57	0.00****

Source and Notes: *See* Table 6.4.

Table AD.2. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Construction Contracting (Dollars Paid)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.01	0.02	83.72
Hispanic	35.11	19.58	
Asian/Pacific Islander	0.06	0.08	70.79
Native American	0.00	0.04	0.00
Minority	35.18	19.72	
Nonminority female	2.91	3.87	75.18
M/WBE total	38.09	23.59	
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.83	0.00****
Hispanic	14.76	42.78	34.51****
Asian/Pacific Islander	0.28	0.04	
Native American	1.59	1.74	91.82
Minority	16.64	46.39	35.86****
Nonminority female	4.27	11.81	36.12***
M/WBE total	20.90	58.20	35.91****
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.10	1.15	8.33
Hispanic	15.83	22.74	69.60
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	15.92	23.88	66.67
Nonminority female	3.05	19.00	16.05****
M/WBE total	18.97	42.88	44.24****
Nonresidential Building Construction (NAICS 2362)			
African American	1.56	2.11	73.92
Hispanic	23.96	26.42	90.69
Asian/Pacific Islander	0.69	2.11	32.84
Native American	0.00	0.42	0.00*
Minority	26.21	31.07	84.38
Nonminority female	12.99	8.69	
M/WBE total	39.21	39.76	98.61
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.06	1.79	3.56***
Hispanic	41.63	48.82	85.28
Asian/Pacific Islander	2.17	0.92	
Native American	0.07	2.83	2.59***
Minority	43.94	54.36	80.84
Nonminority female	30.14	12.05	
M/WBE total	74.08	66.40	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Building Finishing Contractors (NAICS 2383)			
African American	0.20	0.26	77.24
Hispanic	13.49	50.20	26.88****
Asian/Pacific Islander	7.33	2.34	
Native American	3.89	1.00	
Minority	24.92	53.80	46.32****
Nonminority female	21.73	8.13	
M/WBE total	46.65	61.92	75.33**
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Cement and Concrete Product Manufacturing (NAICS 3273)			
African American	0.00	0.00	
Hispanic	7.94	13.84	57.36
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	7.94	13.84	57.36
Nonminority female	9.84	9.12	
M/WBE total	17.78	22.96	77.46
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.00	1.42	0.00****
Hispanic	32.70	23.25	
Asian/Pacific Islander	0.14	2.36	6.05****
Native American	0.00	1.69	0.00****
Minority	32.85	28.72	
Nonminority female	1.12	10.77	10.38****
M/WBE total	33.96	39.49	86.00**

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Architectural and Structural Metals Manufacturing (NAICS 3323)			
African American	0.00	0.19	0.00
Hispanic	20.56	27.90	73.69
Asian/Pacific Islander	3.34	2.47	
Native American	0.00	2.43	0.00*
Minority	23.90	32.99	72.45
Nonminority female	0.00	19.34	0.00****
M/WBE total	23.90	52.33	45.68
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)			
African American	0.00	0.00	
Hispanic	2.28	23.45	9.71**
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.28	23.45	9.71**
Nonminority female	0.92	9.17	10.04
M/WBE total	3.20	32.62	9.80***
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	5.63	13.97	40.28
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	5.63	13.97	40.28
Nonminority female	19.89	23.00	86.47
M/WBE total	25.51	36.96	69.02
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00
Hispanic	59.95	48.15	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	59.95	48.56	
Nonminority female	0.97	9.52	10.16****
M/WBE total	60.91	58.08	
Other Heavy and Civil Engineering Construction (NAICS 2379)			
African American	0.00	0.00	
Hispanic	2.40	17.34	13.83**
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.40	17.34	13.83**
Nonminority female	6.88	6.45	
M/WBE total	9.28	23.79	39.01

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Specialized Freight Trucking (NAICS 4842)			
African American	0.06	2.67	2.31*
Hispanic	78.98	22.23	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	79.04	24.91	
Nonminority female	1.88	19.14	9.80****
M/WBE total	80.91	44.05	
Glass and Glass Product Manufacturing (NAICS 3272)			
African American	0.00	0.00	
Hispanic	0.00	18.18	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	18.18	0.00****
Nonminority female	90.78	45.45	
M/WBE total	90.78	63.64	
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.02	0.00****
Hispanic	0.00	36.07	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.09	0.00****
Nonminority female	0.00	12.02	0.00****
M/WBE total	0.00	53.11	0.00****
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	0.00	1.54	0.00***
Hispanic	18.49	14.03	
Asian/Pacific Islander	0.00	0.25	0.00
Native American	0.00	2.24	0.00****
Minority	18.49	18.06	
Nonminority female	22.39	13.71	
M/WBE total	40.88	31.77	
Lessors of Real Estate (NAICS 5311)			
African American	0.00	4.91	0.00
Hispanic	0.00	35.66	0.00****
Asian/Pacific Islander	0.00	0.37	0.00
Native American	0.00	0.00	
Minority	0.00	40.94	0.00****
Nonminority female	0.00	12.76	0.00****
M/WBE total	0.00	53.71	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	31.14	8.43	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	31.14	8.43	
Nonminority female	7.40	31.02	23.85****
M/WBE total	38.54	39.45	97.70
Motion Picture and Video Industries (NAICS 5121)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	8.33	0.00
M/WBE total	0.00	8.33	0.00
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	6.88	0.00****
Native American	0.00	0.00	
Minority	0.00	6.88	0.00****
Nonminority female	17.26	27.92	61.83
M/WBE total	17.26	34.79	49.61*
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00****
Nonminority female	0.00	23.00	0.00****
M/WBE total	0.00	65.00	0.00****
Other Wood Product Manufacturing (NAICS 3219)			
African American	0.00	0.00	
Hispanic	0.19	37.57	0.50****
Asian/Pacific Islander	20.58	2.84	
Native American	0.00	5.39	0.00*
Minority	20.77	45.81	45.33
Nonminority female	17.92	20.06	89.32
M/WBE total	38.68	65.86	58.73

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Support Activities for Transportation (NAICS 4889)			
African American	0.00	13.42	0.00***
Hispanic	100.00	31.23	
Asian/Pacific Islander	0.00	6.30	0.00
Native American	0.00	0.00	
Minority	100.00	50.95	
Nonminority female	0.00	12.06	0.00***
M/WBE total	100.00	63.01	
Remediation and Other Waste Management Services (NAICS 5629)			
African American	0.00	12.60	0.00****
Hispanic	2.59	3.69	70.10
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.59	16.29	15.89
Nonminority female	1.78	23.35	7.64***
M/WBE total	4.37	39.64	11.03***
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	7.14	0.00****
Asian/Pacific Islander	0.00	15.71	0.00****
Native American	0.00	0.00	
Minority	0.00	22.86	0.00****
Nonminority female	0.00	31.43	0.00****
M/WBE total	0.00	54.29	0.00****
Other Nonmetallic Mineral Product Manufacturing (NAICS 3279)			
African American	0.00	0.00	
Hispanic	63.04	0.00	
Asian/Pacific Islander	0.00	14.29	0.00
Native American	0.00	0.00	
Minority	63.04	14.29	
Nonminority female	0.00	0.00	
M/WBE total	63.04	14.29	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	21.21	0.00****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	21.21	0.00****
Nonminority female	2.16	12.12	17.80
M/WBE total	2.16	33.33	6.47****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	18.01	17.08	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	18.01	17.08	
Nonminority female	0.00	7.52	0.00****
M/WBE total	18.01	24.59	73.25
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)			
African American	0.00	1.12	0.00
Hispanic	0.00	17.49	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	4.25	0.00
Minority	0.00	22.86	0.00****
Nonminority female	0.00	16.14	0.00****
M/WBE total	0.00	39.00	0.00****
Foundries (NAICS 3315)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Residential Building Construction (NAICS 2361)			
African American	0.00	0.21	0.00
Hispanic	73.50	40.92	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	73.50	41.13	
Nonminority female	0.00	0.00	
M/WBE total	73.50	41.13	
Communications Equipment Manufacturing (NAICS 3342)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	11.11	0.00****
Native American	0.00	0.00	
Minority	0.00	11.11	0.00****
Nonminority female	0.00	11.11	0.00****
M/WBE total	0.00	22.22	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	12.28	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.28	0.00****
Nonminority female	0.00	26.34	0.00****
M/WBE total	0.00	38.62	0.00****
Other Miscellaneous Manufacturing (NAICS 3399)			
African American	0.00	4.18	0.00****
Hispanic	0.00	33.66	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	2.58	0.00*
Minority	0.00	40.42	0.00****
Nonminority female	11.59	12.76	90.86
M/WBE total	11.59	53.18	21.79****
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.81	0.00
Hispanic	0.00	36.07	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	40.88	0.00****
Nonminority female	0.00	12.02	0.00****
M/WBE total	0.00	52.90	0.00****
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00****
Hispanic	0.00	36.16	0.00****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00****
Nonminority female	0.00	12.08	0.00****
M/WBE total	0.00	53.07	0.00****
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)			
African American	0.00	3.51	0.00*
Hispanic	0.75	13.42	5.59
Asian/Pacific Islander	0.00	1.45	0.00
Native American	0.00	0.00	
Minority	0.75	18.38	4.08***
Nonminority female	11.66	15.71	74.20
M/WBE total	12.41	34.10	36.40*

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00****
Asian/Pacific Islander	0.00	7.16	0.00***
Native American	0.00	0.00	
Minority	0.00	15.89	0.00****
Nonminority female	0.00	4.69	0.00***
M/WBE total	0.00	20.57	0.00****
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	0.00	34.87	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00*
Minority	0.00	36.54	0.00****
Nonminority female	21.79	13.72	
M/WBE total	21.79	50.26	43.36
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)			
African American	0.00	0.00	
Hispanic	0.00	10.76	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	10.76	0.00****
Nonminority female	10.94	13.54	80.77
M/WBE total	10.94	24.31	45.00
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.49	0.00	
Hispanic	86.39	16.59	
Asian/Pacific Islander	0.00	1.49	0.00****
Native American	0.00	5.40	0.00****
Minority	86.88	23.48	
Nonminority female	3.51	27.38	12.83****
M/WBE total	90.40	50.86	
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Insurance Carriers (NAICS 5241)			
African American	0.00	0.00	
Hispanic	0.00	26.29	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	26.29	0.00****
Nonminority female	0.00	17.14	0.00****
M/WBE total	0.00	43.43	0.00****
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.62	0.00
Hispanic	72.77	1.92	
Asian/Pacific Islander	0.00	0.07	0.00
Native American	0.00	0.07	0.00
Minority	72.77	2.69	
Nonminority female	0.00	1.78	0.00*
M/WBE total	72.77	4.47	
Electric Lighting Equipment Manufacturing (NAICS 3351)			
African American	0.00	0.00	
Hispanic	0.00	16.67	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	16.67	0.00****
Nonminority female	0.00	16.67	0.00****
M/WBE total	0.00	33.33	0.00****
Lime and Gypsum Product Manufacturing (NAICS 3274)			
African American	0.00	3.21	0.00
Hispanic	0.00	49.74	0.00****
Asian/Pacific Islander	0.00	2.56	0.00
Native American	0.00	0.00	
Minority	0.00	55.51	0.00****
Nonminority female	0.00	8.03	0.00****
M/WBE total	0.00	63.55	0.00****

Source and Notes: *See* Table 6.4.

Table AD.3. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Architecture & Engineering Contracting (Dollars Awarded)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	2.55	1.08	
Hispanic	28.01	18.08	
Asian/Pacific Islander	6.19	4.47	
Native American	0.35	3.56	9.76****
Minority	37.10	27.19	
Nonminority female	10.19	9.49	
M/WBE total	47.29	36.69	
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00*
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00*
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.27	0.95	29.03
Hispanic	8.57	6.76	
Asian/Pacific Islander	0.27	0.68	39.52
Native American	0.00	1.73	0.00****
Minority	9.12	10.12	90.14
Nonminority female	14.56	9.23	
M/WBE total	23.67	19.35	
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.71	2.33	30.55
Hispanic	0.00	44.35	0.00****
Asian/Pacific Islander	0.00	0.62	0.00****
Native American	0.00	1.54	0.00****
Minority	0.71	48.84	1.46****
Nonminority female	45.97	12.73	
M/WBE total	46.68	61.57	75.82**
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.81	0.00****
Hispanic	10.63	43.84	24.24****
Asian/Pacific Islander	0.00	0.05	0.00
Native American	0.00	1.72	0.00****
Minority	10.63	47.42	22.42****
Nonminority female	6.04	11.50	52.51*
M/WBE total	16.67	58.92	28.29****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Finishing Contractors (NAICS 2383)			
African American	0.00	0.12	0.00
Hispanic	9.79	50.44	19.41****
Asian/Pacific Islander	5.41	2.25	
Native American	0.00	0.48	0.00****
Minority	15.20	53.30	28.52****
Nonminority female	0.00	6.25	0.00****
M/WBE total	15.20	59.56	25.53****
Nonresidential Building Construction (NAICS 2362)			
African American	2.31	2.11	
Hispanic	10.60	26.42	40.14
Asian/Pacific Islander	0.00	2.11	0.00****
Native American	0.00	0.42	0.00****
Minority	12.91	31.07	41.56
Nonminority female	0.57	8.69	6.51***
M/WBE total	13.48	39.76	33.89
Remediation and Other Waste Management Services (NAICS 5629)			
African American	0.00	14.29	0.00****
Hispanic	0.48	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.48	14.29	3.34***
Nonminority female	47.21	28.57	
M/WBE total	47.69	42.86	
Architectural and Structural Metals Manufacturing (NAICS 3323)			
African American	0.00	0.00	
Hispanic	43.86	32.80	
Asian/Pacific Islander	42.70	3.70	
Native American	0.00	3.70	0.00****
Minority	86.56	40.21	
Nonminority female	0.00	12.70	0.00****
M/WBE total	86.56	52.91	
Cement and Concrete Product Manufacturing (NAICS 3273)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	20.00	0.00****
Nonminority female	0.00	12.59	0.00****
M/WBE total	0.00	32.59	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	0.00	4.26	0.00****
Hispanic	0.00	34.84	0.00****
Asian/Pacific Islander	99.85	2.13	
Native American	0.00	0.00	
Minority	99.85	41.22	
Nonminority female	0.00	28.19	0.00****
M/WBE total	99.85	69.41	
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.00	3.78	0.00****
Hispanic	26.05	24.87	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	26.05	28.65	90.92
Nonminority female	3.43	17.78	19.30****
M/WBE total	29.49	46.43	63.50***
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00****
Hispanic	0.00	1.37	0.00
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	0.00	10.45	0.00****
Nonminority female	0.00	25.71	0.00****
M/WBE total	0.00	36.16	0.00****
Scientific Research and Development Services (NAICS 5417)			
African American	0.00	5.00	0.00****
Hispanic	0.00	31.19	0.00****
Asian/Pacific Islander	0.00	7.38	0.00****
Native American	0.00	5.71	0.00****
Minority	0.00	49.29	0.00****
Nonminority female	0.00	11.43	0.00****
M/WBE total	0.00	60.71	0.00****
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	7.14	0.00****
Asian/Pacific Islander	0.00	15.71	0.00****
Native American	0.00	0.00	
Minority	0.00	22.86	0.00****
Nonminority female	0.00	31.43	0.00****
M/WBE total	0.00	54.29	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00***
Hispanic	20.93	48.15	43.47****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	20.93	48.56	43.11****
Nonminority female	0.00	9.52	0.00****
M/WBE total	20.93	58.08	36.04****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	0.00	
Hispanic	20.36	19.58	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	20.36	19.58	
Nonminority female	29.99	3.70	
M/WBE total	50.34	23.28	
Home Furnishings Stores (NAICS 4422)			
African American	0.00	0.00	
Hispanic	0.00	29.60	0.00****
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.86	0.00
Minority	0.00	31.32	0.00****
Nonminority female	0.00	25.86	0.00****
M/WBE total	0.00	57.18	0.00****
Other Wood Product Manufacturing (NAICS 3219)			
African American	0.00	0.00	
Hispanic	0.00	62.50	0.00****
Asian/Pacific Islander	99.95	12.50	
Native American	0.00	0.00	
Minority	99.95	75.00	
Nonminority female	0.05	25.00	0.19****
M/WBE total	100.00	100.00	100.00
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	0.00	
Hispanic	0.00	28.01	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	28.01	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	28.01	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	3.57	0.00****
Hispanic	66.59	27.75	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	66.59	31.32	
Nonminority female	33.41	31.32	
M/WBE total	100.00	62.64	
Specialized Design Services (NAICS 5414)			
African American	25.84	4.14	
Hispanic	74.13	17.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	99.97	21.14	
Nonminority female	0.00	46.49	0.00****
M/WBE total	99.97	67.63	

Source and Notes: *See* Table 6.4.

Table AD.4. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Architecture & Engineering Contracting (Dollars Paid)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	2.82	1.09	
Hispanic	24.71	18.32	
Asian/Pacific Islander	6.28	4.43	
Native American	0.22	3.52	6.18****
Minority	34.02	27.36	
Nonminority female	14.33	9.49	
M/WBE total	48.35	36.85	
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.04	1.02	4.37
Hispanic	6.11	4.33	
Asian/Pacific Islander	0.00	0.54	0.00**
Native American	0.00	1.08	0.00****
Minority	6.15	6.97	88.26
Nonminority female	6.39	5.14	
M/WBE total	12.55	12.11	
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.71	2.33	30.55
Hispanic	0.00	44.35	0.00****
Asian/Pacific Islander	0.00	0.62	0.00****
Native American	0.00	1.54	0.00****
Minority	0.71	48.84	1.46****
Nonminority female	45.97	12.73	
M/WBE total	46.68	61.57	75.82**
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.77	0.00****
Hispanic	9.62	43.96	21.88****
Asian/Pacific Islander	0.00	0.05	0.00
Native American	0.00	1.69	0.00****
Minority	9.62	47.47	20.26****
Nonminority female	6.08	11.52	52.78
M/WBE total	15.70	58.99	26.61****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Finishing Contractors (NAICS 2383)			
African American	0.00	0.12	0.00
Hispanic	9.76	50.48	19.34****
Asian/Pacific Islander	5.39	2.25	
Native American	0.00	0.48	0.00
Minority	15.15	53.33	28.42****
Nonminority female	0.00	6.29	0.00****
M/WBE total	15.15	59.62	25.42****
Architectural and Structural Metals Manufacturing (NAICS 3323)			
African American	0.00	0.00	
Hispanic	41.49	40.45	
Asian/Pacific Islander	45.71	3.28	
Native American	0.00	3.28	0.00****
Minority	87.20	47.02	
Nonminority female	0.00	11.25	0.00****
M/WBE total	87.20	58.27	
Cement and Concrete Product Manufacturing (NAICS 3273)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	20.00	0.00****
Nonminority female	0.00	12.59	0.00****
M/WBE total	0.00	32.59	0.00****
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.00	4.05	0.00****
Hispanic	24.57	25.08	97.93
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	24.57	29.13	84.32
Nonminority female	1.47	17.66	8.33****
M/WBE total	26.04	46.79	55.65***
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00****
Hispanic	0.00	1.37	0.00
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	0.00	10.45	0.00****
Nonminority female	0.00	25.71	0.00****
M/WBE total	0.00	36.16	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Nonresidential Building Construction (NAICS 2362)			
African American	6.74	2.11	
Hispanic	0.00	26.42	0.00****
Asian/Pacific Islander	0.00	2.11	0.00****
Native American	0.00	0.42	0.00*
Minority	6.74	31.07	21.71****
Nonminority female	2.81	8.69	32.37
M/WBE total	9.56	39.76	24.04****
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	7.14	0.00****
Asian/Pacific Islander	0.00	15.71	0.00****
Native American	0.00	0.00	
Minority	0.00	22.86	0.00****
Nonminority female	0.00	31.43	0.00****
M/WBE total	0.00	54.29	0.00****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00
Hispanic	21.22	48.15	44.06****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	21.22	48.56	43.70****
Nonminority female	0.00	9.52	0.00****
M/WBE total	21.22	58.08	36.54****
Other Wood Product Manufacturing (NAICS 3219)			
African American	0.00	0.00	
Hispanic	0.00	62.50	0.00****
Asian/Pacific Islander	99.95	12.50	
Native American	0.00	0.00	
Minority	99.95	75.00	
Nonminority female	0.05	25.00	0.19****
M/WBE total	100.00	100.00	100.00
Scientific Research and Development Services (NAICS 5417)			
African American	0.00	5.00	0.00****
Hispanic	0.00	31.19	0.00****
Asian/Pacific Islander	0.00	7.38	0.00****
Native American	0.00	5.71	0.00****
Minority	0.00	49.29	0.00****
Nonminority female	0.00	11.43	0.00****
M/WBE total	0.00	60.71	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	0.00	
Hispanic	0.00	28.01	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	28.01	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	28.01	0.00****
Home Furnishings Stores (NAICS 4422)			
African American	0.00	0.00	
Hispanic	0.00	29.60	0.00****
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.86	0.00
Minority	0.00	31.32	0.00****
Nonminority female	0.00	25.86	0.00****
M/WBE total	0.00	57.18	0.00****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	0.00	
Hispanic	34.90	19.58	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	34.90	19.58	
Nonminority female	11.99	3.70	
M/WBE total	46.89	23.28	
Specialized Design Services (NAICS 5414)			
African American	25.41	4.14	
Hispanic	72.88	17.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	98.29	21.14	
Nonminority female	0.00	46.49	0.00****
M/WBE total	98.29	67.63	

Source and Notes: *See* Table 6.4.

Table AD.5. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Professional Services Contracting (Dollars Awarded)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Individual and Family Services (NAICS 6241)			
African American	0.00	5.40	0.00****
Hispanic	0.00	36.43	0.00****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.93	0.00****
Nonminority female	0.00	12.29	0.00****
M/WBE total	0.00	54.22	0.00****
Insurance Carriers (NAICS 5241)			
African American	0.00	0.10	0.00
Hispanic	0.42	22.63	1.87****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.42	22.73	1.86****
Nonminority female	0.00	16.97	0.00****
M/WBE total	0.42	39.70	1.07****
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	2.43	0.00****
Hispanic	3.11	26.60	11.68***
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	3.11	29.03	10.71****
Nonminority female	17.63	24.38	72.30
M/WBE total	20.74	53.42	38.82**
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00****
Hispanic	0.00	36.16	0.00****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00****
Nonminority female	0.00	12.08	0.00****
M/WBE total	0.00	53.07	0.00****
Offices of Physicians (NAICS 6211)			
African American	0.00	12.00	0.00****
Hispanic	3.24	1.83	
Asian/Pacific Islander	0.00	1.20	0.00
Native American	0.00	0.00	
Minority	3.24	15.02	21.55
Nonminority female	1.03	2.45	41.92
M/WBE total	4.27	17.48	24.41*

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)			
African American	4.48	1.67	
Hispanic	4.24	17.69	23.98
Asian/Pacific Islander	0.00	2.75	0.00****
Native American	0.00	0.00	
Minority	8.73	22.11	39.47
Nonminority female	0.12	15.86	0.75****
M/WBE total	8.84	37.97	23.30
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.71	0.00****
Hispanic	0.00	35.81	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.52	0.00****
Nonminority female	0.00	11.94	0.00****
M/WBE total	0.00	53.45	0.00****
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	10.00	3.41	
Hispanic	6.18	11.04	56.01
Asian/Pacific Islander	0.00	0.57	0.00***
Native American	0.00	0.66	0.00***
Minority	16.19	15.67	
Nonminority female	10.72	24.04	44.61
M/WBE total	26.91	39.71	67.77
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.00	2.72	0.00****
Hispanic	17.16	45.35	37.83****
Asian/Pacific Islander	0.00	0.45	0.00****
Native American	0.00	1.65	0.00****
Minority	17.16	50.17	34.20****
Nonminority female	0.34	10.49	3.22****
M/WBE total	17.50	60.66	28.84****
Grantmaking and Giving Services (NAICS 8132)			
African American	0.00	4.71	0.00****
Hispanic	0.00	35.33	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	40.04	0.00****
Nonminority female	0.00	11.78	0.00****
M/WBE total	0.00	51.81	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Depository Credit Intermediation (NAICS 5221)			
African American	0.00	0.00	
Hispanic	0.00	0.92	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.92	0.00
Nonminority female	0.00	0.62	0.00
M/WBE total	0.00	1.54	0.00
Community Food and Housing, and Emergency and Other Relief Services (NAICS 6242)			
African American	0.00	5.05	0.00*
Hispanic	0.00	36.39	0.00****
Asian/Pacific Islander	0.00	0.39	0.00
Native American	0.00	0.00	
Minority	0.00	41.83	0.00****
Nonminority female	0.00	13.88	0.00****
M/WBE total	0.00	55.71	0.00****
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	12.28	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.28	0.00****
Nonminority female	0.00	26.34	0.00****
M/WBE total	0.00	38.62	0.00****
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)			
African American	0.00	0.00	
Hispanic	0.44	12.80	3.43
Asian/Pacific Islander	0.00	2.53	0.00
Native American	0.00	0.00	
Minority	0.44	15.33	2.86
Nonminority female	0.00	2.53	0.00
M/WBE total	0.44	17.87	2.46
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.35	0.00****
Hispanic	18.02	45.36	39.73****
Asian/Pacific Islander	14.11	0.06	
Native American	0.00	1.34	0.00****
Minority	32.13	48.11	66.78****
Nonminority female	0.00	11.68	0.00****
M/WBE total	32.13	59.79	53.74****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Performing Arts Companies (NAICS 7111)			
African American	0.00	6.47	0.00****
Hispanic	0.00	30.43	0.00****
Asian/Pacific Islander	0.00	0.14	0.00
Native American	0.00	0.00	
Minority	0.00	37.05	0.00****
Nonminority female	0.00	21.82	0.00****
M/WBE total	0.00	58.87	0.00****
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	26.91	0.96	
Hispanic	1.93	15.94	12.12****
Asian/Pacific Islander	2.10	5.29	39.66***
Native American	0.00	4.12	0.00****
Minority	30.94	26.31	
Nonminority female	9.81	8.95	
M/WBE total	40.75	35.26	
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00*
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00*
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Building Finishing Contractors (NAICS 2383)			
African American	0.00	0.00	
Hispanic	26.56	51.02	52.05****
Asian/Pacific Islander	0.00	1.71	0.00****
Native American	0.00	0.00	
Minority	26.56	52.73	50.37****
Nonminority female	9.66	4.08	
M/WBE total	36.22	56.81	63.76****
Other Amusement and Recreation Industries (NAICS 7139)			
African American	0.00	5.01	0.00
Hispanic	0.00	36.21	0.00****
Asian/Pacific Islander	0.00	0.57	0.00
Native American	0.00	0.00	
Minority	0.00	41.79	0.00****
Nonminority female	0.00	13.58	0.00****
M/WBE total	0.00	55.37	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	99.12	34.87	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00****
Minority	99.12	36.54	
Nonminority female	0.00	13.72	0.00****
M/WBE total	99.12	50.26	
Other Schools and Instruction (NAICS 6116)			
African American	0.00	5.03	0.00****
Hispanic	0.78	30.00	2.61****
Asian/Pacific Islander	0.00	1.24	0.00
Native American	0.00	0.09	0.00
Minority	0.78	36.37	2.15****
Nonminority female	0.00	18.69	0.00****
M/WBE total	0.78	55.06	1.42****
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.78	0.00****
Hispanic	0.00	35.86	0.00****
Asian/Pacific Islander	0.00	0.78	0.00
Native American	0.00	0.00	
Minority	0.00	41.42	0.00****
Nonminority female	0.00	11.95	0.00****
M/WBE total	0.00	53.38	0.00****
Other Support Services (NAICS 5619)			
African American	0.00	0.00	
Hispanic	0.00	6.25	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.25	0.00
Nonminority female	100.00	47.92	
M/WBE total	100.00	54.17	
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.00	2.55	0.00****
Hispanic	2.11	23.87	8.85****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.11	26.42	8.00****
Nonminority female	0.00	18.35	0.00****
M/WBE total	2.11	44.77	4.72****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)			
African American	0.00	0.00	
Hispanic	0.00	43.33	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	43.33	0.00****
Nonminority female	0.00	18.89	0.00****
M/WBE total	0.00	62.22	0.00****
Waste Treatment and Disposal (NAICS 5622)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	10.00	0.00****
Minority	0.00	30.00	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	30.00	0.00****
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00****
Hispanic	8.84	1.37	
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	8.84	10.45	84.55
Nonminority female	0.00	25.71	0.00****
M/WBE total	8.84	36.16	24.44***
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	0.00	8.75	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	8.75	0.00****
Nonminority female	0.00	23.75	0.00****
M/WBE total	0.00	32.50	0.00****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	0.63	0.00****
Hispanic	0.00	19.56	0.00****
Asian/Pacific Islander	0.00	8.57	0.00****
Native American	0.00	1.98	0.00****
Minority	0.00	30.74	0.00****
Nonminority female	3.32	17.70	18.75****
M/WBE total	3.32	48.44	6.85****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	3.81	0.00	
Hispanic	17.27	10.33	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	2.79	0.00****
Minority	21.08	13.13	
Nonminority female	0.15	40.53	0.38****
M/WBE total	21.23	53.66	39.58****
Radio and Television Broadcasting (NAICS 5151)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Activities Related to Credit Intermediation (NAICS 5223)			
African American	0.00	3.80	0.00
Hispanic	0.00	33.02	0.00****
Asian/Pacific Islander	0.00	0.37	0.00
Native American	0.00	0.00	
Minority	0.00	37.19	0.00****
Nonminority female	0.00	11.84	0.00
M/WBE total	0.00	49.03	0.00****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	5.66	0.00****
Hispanic	67.80	40.89	
Asian/Pacific Islander	0.00	3.21	0.00****
Native American	0.00	0.00	
Minority	67.80	49.75	
Nonminority female	3.16	19.24	16.43****
M/WBE total	70.97	68.99	
Printing and Related Support Activities (NAICS 3231)			
African American	0.00	1.88	0.00***
Hispanic	8.51	27.75	30.68
Asian/Pacific Islander	0.00	2.36	0.00***
Native American	0.00	0.00	
Minority	8.51	31.98	26.61
Nonminority female	91.49	12.35	
M/WBE total	100.00	44.34	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Educational Support Services (NAICS 6117)			
African American	0.00	5.26	0.00****
Hispanic	0.00	7.89	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.16	0.00****
Nonminority female	0.00	26.75	0.00****
M/WBE total	0.00	39.91	0.00****
Other Financial Investment Activities (NAICS 5239)			
African American	0.00	4.68	0.00
Hispanic	0.00	34.88	0.00****
Asian/Pacific Islander	0.00	0.06	0.00
Native American	0.00	0.00	
Minority	0.00	39.62	0.00****
Nonminority female	0.00	11.91	0.00
M/WBE total	0.00	51.54	0.00****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00****
Asian/Pacific Islander	0.00	7.16	0.00****
Native American	0.00	0.00	
Minority	0.00	15.89	0.00****
Nonminority female	0.00	4.69	0.00****
M/WBE total	0.00	20.57	0.00****
Religious Organizations (NAICS 8131)			
African American	0.00	4.81	0.00
Hispanic	0.00	36.22	0.00****
Asian/Pacific Islander	0.00	0.01	0.00
Native American	0.00	0.00	
Minority	0.00	41.04	0.00****
Nonminority female	0.00	12.04	0.00****
M/WBE total	0.00	53.07	0.00****
Legal Services (NAICS 5411)			
African American	0.00	0.23	0.00
Hispanic	0.00	96.46	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	96.68	0.00****
Nonminority female	0.00	2.82	0.00
M/WBE total	0.00	99.50	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Scientific Research and Development Services (NAICS 5417)			
African American	0.00	5.00	0.00****
Hispanic	0.00	31.19	0.00****
Asian/Pacific Islander	0.00	7.38	0.00****
Native American	0.00	5.71	0.00****
Minority	0.00	49.29	0.00****
Nonminority female	100.00	11.43	
M/WBE total	100.00	60.71	
Activities Related to Real Estate (NAICS 5313)			
African American	0.00	1.28	0.00
Hispanic	0.00	11.74	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.02	0.00****
Nonminority female	0.00	17.60	0.00****
M/WBE total	0.00	30.62	0.00****
Child Day Care Services (NAICS 6244)			
African American	0.00	6.38	0.00
Hispanic	0.00	37.13	0.00****
Asian/Pacific Islander	0.00	0.93	0.00
Native American	0.00	0.00	
Minority	0.00	44.44	0.00****
Nonminority female	0.00	15.85	0.00****
M/WBE total	0.00	60.28	0.00****
Specialized Design Services (NAICS 5414)			
African American	11.76	4.14	
Hispanic	88.24	17.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	100.00	21.14	
Nonminority female	0.00	46.49	0.00****
M/WBE total	100.00	67.63	
Other Residential Care Facilities (NAICS 6239)			
African American	0.00	4.55	0.00
Hispanic	0.00	36.91	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.47	0.00****
Nonminority female	0.00	12.77	0.00****
M/WBE total	0.00	54.23	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Medical and Diagnostic Laboratories (NAICS 6215)			
African American	0.00	0.00	
Hispanic	0.00	1.30	0.00
Asian/Pacific Islander	0.00	1.30	0.00
Native American	0.00	0.00	
Minority	0.00	2.60	0.00
Nonminority female	0.00	21.43	0.00****
M/WBE total	0.00	24.03	0.00****
Office Supplies, Stationery, and Gift Stores (NAICS 4532)			
African American	0.00	0.00	
Hispanic	0.00	25.51	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	25.51	0.00****
Nonminority female	0.00	14.63	0.00****
M/WBE total	0.00	40.14	0.00****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	0.00	8.43	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	8.43	0.00****
Nonminority female	0.00	31.02	0.00****
M/WBE total	0.00	39.45	0.00****
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00****
Nonminority female	0.00	23.00	0.00****
M/WBE total	0.00	65.00	0.00****
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.96	0.00****
Hispanic	37.43	23.84	
Asian/Pacific Islander	34.45	8.09	
Native American	0.00	3.54	0.00****
Minority	71.88	42.43	
Nonminority female	0.00	12.20	0.00****
M/WBE total	71.88	54.63	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
General Medical and Surgical Hospitals (NAICS 6221)			
African American	0.00	3.45	0.00
Hispanic	0.00	2.30	0.00
Asian/Pacific Islander	0.00	1.15	0.00
Native American	0.00	3.45	0.00
Minority	0.00	10.34	0.00
Nonminority female	0.00	1.15	0.00
M/WBE total	0.00	11.49	0.00
Offices of Dentists (NAICS 6212)			
African American	0.00	0.10	0.00
Hispanic	0.00	30.25	0.00****
Asian/Pacific Islander	0.00	5.70	0.00
Native American	0.00	0.00	
Minority	0.00	36.05	0.00****
Nonminority female	0.00	8.89	0.00
M/WBE total	0.00	44.93	0.00****
Offices of Other Health Practitioners (NAICS 6213)			
African American	0.00	0.75	0.00
Hispanic	13.79	25.79	53.48
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	13.79	26.54	51.97
Nonminority female	0.00	32.11	0.00****
M/WBE total	13.79	58.65	23.52****
Home Furnishings Stores (NAICS 4422)			
African American	0.00	0.00	
Hispanic	0.00	29.60	0.00****
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.86	0.00
Minority	0.00	31.32	0.00****
Nonminority female	0.00	25.86	0.00****
M/WBE total	0.00	57.18	0.00****
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	0.00	19.41	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	19.41	0.00****
Nonminority female	0.00	5.88	0.00*
M/WBE total	0.00	25.29	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (NAICS 7114)			
African American	0.00	16.48	0.00
Hispanic	0.00	5.71	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	22.20	0.00****
Nonminority female	0.00	16.48	0.00
M/WBE total	0.00	38.68	0.00****
Investigation and Security Services (NAICS 5616)			
African American	0.00	3.88	0.00****
Hispanic	0.00	26.94	0.00****
Asian/Pacific Islander	1.49	4.81	30.96
Native American	38.30	0.97	
Minority	39.78	36.60	
Nonminority female	1.14	12.52	9.07
M/WBE total	40.92	49.13	83.30
Elementary and Secondary Schools (NAICS 6111)			
African American	0.00	5.40	0.00
Hispanic	0.00	35.93	0.00****
Asian/Pacific Islander	0.00	0.01	0.00
Native American	0.00	0.00	
Minority	0.00	41.34	0.00****
Nonminority female	0.00	12.03	0.00
M/WBE total	0.00	53.37	0.00****
Amusement Parks and Arcades (NAICS 7131)			
African American	0.00	0.00	
Hispanic	0.00	33.33	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	33.33	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	33.33	0.00****

Source and Notes: *See* Table 6.4.

Table AD.6. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Professional Services Contracting (Dollars Paid)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Individual and Family Services (NAICS 6241)			
African American	0.00	5.40	0.00****
Hispanic	0.00	36.43	0.00****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.93	0.00****
Nonminority female	0.00	12.29	0.00****
M/WBE total	0.00	54.21	0.00****
Insurance Carriers (NAICS 5241)			
African American	0.00	0.20	0.00
Hispanic	0.00	25.01	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	25.21	0.00****
Nonminority female	0.00	16.65	0.00****
M/WBE total	0.00	41.86	0.00****
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	2.33	0.00
Hispanic	2.22	26.51	8.36***
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	2.22	28.84	7.69****
Nonminority female	9.62	23.79	40.43
M/WBE total	11.84	52.63	22.49*
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.71	0.00****
Hispanic	0.00	35.81	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.52	0.00****
Nonminority female	0.00	11.94	0.00****
M/WBE total	0.00	53.45	0.00****
Grantmaking and Giving Services (NAICS 8132)			
African American	0.00	4.70	0.00
Hispanic	0.00	35.29	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	39.99	0.00****
Nonminority female	0.00	11.76	0.00****
M/WBE total	0.00	51.75	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.00	2.56	0.00****
Hispanic	18.41	45.89	40.12****
Asian/Pacific Islander	0.00	0.48	0.00*
Native American	0.00	1.74	0.00****
Minority	18.41	50.68	36.33****
Nonminority female	0.34	10.37	3.29****
M/WBE total	18.75	61.05	30.72****
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	4.76	3.21	
Hispanic	2.27	11.97	18.99***
Asian/Pacific Islander	0.00	0.40	0.00**
Native American	0.00	0.37	0.00**
Minority	7.04	15.96	44.09
Nonminority female	2.83	23.42	12.10****
M/WBE total	9.87	39.38	25.06****
Offices of Physicians (NAICS 6211)			
African American	0.00	12.00	0.00****
Hispanic	3.45	1.83	
Asian/Pacific Islander	0.00	1.20	0.00
Native American	0.00	0.00	
Minority	3.45	15.02	22.98
Nonminority female	1.41	2.45	57.43
M/WBE total	4.86	17.48	27.82
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)			
African American	6.77	3.53	
Hispanic	6.68	26.21	25.50
Asian/Pacific Islander	0.00	5.38	0.00**
Native American	0.00	0.00	
Minority	13.45	35.12	38.30
Nonminority female	0.16	25.24	0.62****
M/WBE total	13.61	60.36	22.54***
Community Food and Housing, and Emergency and Other Relief Services (NAICS 6242)			
African American	0.00	5.00	0.00*
Hispanic	0.00	36.34	0.00****
Asian/Pacific Islander	0.00	0.31	0.00
Native American	0.00	0.00	
Minority	0.00	41.66	0.00****
Nonminority female	0.00	13.52	0.00****
M/WBE total	0.00	55.18	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	12.28	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.28	0.00****
Nonminority female	0.00	26.34	0.00****
M/WBE total	0.00	38.62	0.00****
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.35	0.00****
Hispanic	16.62	45.38	36.64****
Asian/Pacific Islander	13.56	0.06	
Native American	0.00	1.34	0.00****
Minority	30.18	48.12	62.73****
Nonminority female	0.00	11.68	0.00****
M/WBE total	30.18	59.80	50.47****
Land Subdivision (NAICS 2372)			
African American	0.00	2.67	0.00
Hispanic	0.00	11.45	0.00****
Asian/Pacific Islander	0.00	2.67	0.00
Native American	0.00	0.00	
Minority	0.00	16.79	0.00****
Nonminority female	0.00	18.31	0.00****
M/WBE total	0.00	35.10	0.00****
Depository Credit Intermediation (NAICS 5221)			
African American	0.00	0.00	
Hispanic	0.00	0.92	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.92	0.00
Nonminority female	0.00	0.62	0.00
M/WBE total	0.00	1.54	0.00
Performing Arts Companies (NAICS 7111)			
African American	0.00	6.60	0.00****
Hispanic	0.00	30.09	0.00****
Asian/Pacific Islander	0.00	0.16	0.00
Native American	0.00	0.00	
Minority	0.00	36.85	0.00****
Nonminority female	0.00	22.47	0.00****
M/WBE total	0.00	59.32	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00****
Hispanic	0.00	36.16	0.00****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00****
Nonminority female	0.00	12.08	0.00****
M/WBE total	0.00	53.07	0.00****
Building Finishing Contractors (NAICS 2383)			
African American	0.00	0.00	
Hispanic	23.41	50.81	46.07****
Asian/Pacific Islander	0.00	1.74	0.00****
Native American	0.00	0.00	
Minority	23.41	52.55	44.55****
Nonminority female	9.40	3.76	
M/WBE total	32.81	56.31	58.27****
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	99.20	34.87	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00*
Minority	99.20	36.54	
Nonminority female	0.00	13.72	0.00****
M/WBE total	99.20	50.26	
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.52	0.99	52.35
Hispanic	2.34	16.48	14.23****
Asian/Pacific Islander	2.43	5.06	47.97***
Native American	0.00	3.92	0.00****
Minority	5.29	26.46	20.01****
Nonminority female	10.73	9.09	
M/WBE total	16.03	35.56	45.08****
Other Schools and Instruction (NAICS 6116)			
African American	0.00	4.99	0.00****
Hispanic	0.60	29.78	2.00****
Asian/Pacific Islander	0.00	1.22	0.00
Native American	0.00	0.10	0.00
Minority	0.60	36.10	1.65****
Nonminority female	0.00	18.75	0.00****
M/WBE total	0.60	54.84	1.09****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Amusement and Recreation Industries (NAICS 7139)			
African American	0.00	5.01	0.00
Hispanic	0.00	36.21	0.00****
Asian/Pacific Islander	0.00	0.57	0.00
Native American	0.00	0.00	
Minority	0.00	41.79	0.00****
Nonminority female	0.00	13.58	0.00
M/WBE total	0.00	55.37	0.00****
Other Support Services (NAICS 5619)			
African American	0.00	0.00	
Hispanic	0.00	6.25	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.25	0.00
Nonminority female	100.00	47.92	
M/WBE total	100.00	54.17	
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.00	2.15	0.00****
Hispanic	0.00	23.55	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	25.69	0.00****
Nonminority female	0.00	18.54	0.00****
M/WBE total	0.00	44.23	0.00****
Waste Treatment and Disposal (NAICS 5622)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	10.00	0.00****
Minority	0.00	30.00	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	30.00	0.00****
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)			
African American	0.00	0.00	
Hispanic	0.00	43.33	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	43.33	0.00****
Nonminority female	0.00	18.89	0.00****
M/WBE total	0.00	62.22	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00****
Hispanic	11.33	1.37	
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	11.33	10.45	
Nonminority female	0.00	25.71	0.00****
M/WBE total	11.33	36.16	31.33**
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	0.00	8.75	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	8.75	0.00****
Nonminority female	0.00	23.75	0.00****
M/WBE total	0.00	32.50	0.00****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	0.56	0.00****
Hispanic	0.00	19.57	0.00****
Asian/Pacific Islander	0.00	7.59	0.00****
Native American	0.00	1.76	0.00****
Minority	0.00	29.47	0.00****
Nonminority female	0.09	16.10	0.53****
M/WBE total	0.09	45.57	0.19****
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.00	
Hispanic	21.65	10.53	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	2.97	0.00*
Minority	21.65	13.50	
Nonminority female	0.19	40.29	0.47****
M/WBE total	21.84	53.79	40.61****
Printing and Related Support Activities (NAICS 3231)			
African American	0.00	1.88	0.00
Hispanic	7.90	27.75	28.48
Asian/Pacific Islander	0.00	2.36	0.00
Native American	0.00	0.00	
Minority	7.90	31.98	24.70
Nonminority female	92.10	12.35	
M/WBE total	100.00	44.34	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Radio and Television Broadcasting (NAICS 5151)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Activities Related to Credit Intermediation (NAICS 5223)			
African American	0.00	3.80	0.00
Hispanic	0.00	33.02	0.00****
Asian/Pacific Islander	0.00	0.37	0.00
Native American	0.00	0.00	
Minority	0.00	37.19	0.00****
Nonminority female	0.00	11.84	0.00
M/WBE total	0.00	49.03	0.00****
Educational Support Services (NAICS 6117)			
African American	0.00	5.26	0.00****
Hispanic	0.00	7.89	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.16	0.00****
Nonminority female	0.00	26.75	0.00****
M/WBE total	0.00	39.91	0.00****
Legal Services (NAICS 5411)			
African American	0.00	0.23	0.00
Hispanic	0.00	96.46	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	96.68	0.00****
Nonminority female	0.00	2.82	0.00
M/WBE total	0.00	99.50	0.00****
Child Day Care Services (NAICS 6244)			
African American	0.00	6.38	0.00
Hispanic	0.00	37.13	0.00****
Asian/Pacific Islander	0.00	0.93	0.00
Native American	0.00	0.00	
Minority	0.00	44.44	0.00****
Nonminority female	0.00	15.85	0.00
M/WBE total	0.00	60.28	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.78	0.00
Hispanic	0.00	35.86	0.00****
Asian/Pacific Islander	0.00	0.78	0.00
Native American	0.00	0.00	
Minority	0.00	41.42	0.00****
Nonminority female	0.00	11.95	0.00****
M/WBE total	0.00	53.38	0.00****
Other Residential Care Facilities (NAICS 6239)			
African American	0.00	4.55	0.00
Hispanic	0.00	36.91	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.47	0.00****
Nonminority female	0.00	12.77	0.00****
M/WBE total	0.00	54.23	0.00****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	0.00	8.43	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	8.43	0.00****
Nonminority female	0.00	31.02	0.00****
M/WBE total	0.00	39.45	0.00****
Activities Related to Real Estate (NAICS 5313)			
African American	0.00	1.28	0.00
Hispanic	0.00	11.74	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.02	0.00****
Nonminority female	0.00	17.60	0.00****
M/WBE total	0.00	30.62	0.00****
Religious Organizations (NAICS 8131)			
African American	0.00	4.81	0.00
Hispanic	0.00	36.22	0.00****
Asian/Pacific Islander	0.00	0.01	0.00
Native American	0.00	0.00	
Minority	0.00	41.04	0.00****
Nonminority female	0.00	12.04	0.00****
M/WBE total	0.00	53.07	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00****
Nonminority female	0.00	23.00	0.00****
M/WBE total	0.00	65.00	0.00****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00
Hispanic	24.13	48.15	50.11****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	24.13	48.56	49.69****
Nonminority female	7.44	9.52	78.23
M/WBE total	31.57	58.08	54.37****
Home Furnishings Stores (NAICS 4422)			
African American	0.00	0.00	
Hispanic	0.00	29.60	0.00****
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.86	0.00
Minority	0.00	31.32	0.00****
Nonminority female	0.00	25.86	0.00****
M/WBE total	0.00	57.18	0.00****
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	0.00	19.41	0.00****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	19.41	0.00****
Nonminority female	0.00	5.88	0.00****
M/WBE total	0.00	25.29	0.00****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00****
Asian/Pacific Islander	0.00	7.16	0.00***
Native American	0.00	0.00	
Minority	0.00	15.89	0.00****
Nonminority female	0.00	4.69	0.00***
M/WBE total	0.00	20.57	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Offices of Dentists (NAICS 6212)			
African American	0.00	0.10	0.00
Hispanic	0.00	30.25	0.00****
Asian/Pacific Islander	0.00	5.70	0.00
Native American	0.00	0.00	
Minority	0.00	36.05	0.00****
Nonminority female	0.00	8.89	0.00
M/WBE total	0.00	44.93	0.00****
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)			
African American	0.00	0.00	
Hispanic	0.00	12.50	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.50	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	12.50	0.00
Pharmaceutical and Medicine Manufacturing (NAICS 3254)			
African American	0.00	4.00	0.00
Hispanic	0.00	28.00	0.00****
Asian/Pacific Islander	0.00	8.00	0.00****
Native American	0.00	20.00	0.00****
Minority	0.00	60.00	0.00****
Nonminority female	0.00	0.00	
M/WBE total	0.00	60.00	0.00****
Elementary and Secondary Schools (NAICS 6111)			
African American	0.00	5.40	0.00
Hispanic	0.00	35.93	0.00****
Asian/Pacific Islander	0.00	0.01	0.00
Native American	0.00	0.00	
Minority	0.00	41.34	0.00****
Nonminority female	0.00	12.03	0.00
M/WBE total	0.00	53.37	0.00****
Glass and Glass Product Manufacturing (NAICS 3272)			
African American	0.00	4.22	0.00****
Hispanic	0.00	41.24	0.00****
Asian/Pacific Islander	0.00	0.96	0.00
Native American	0.00	0.00	
Minority	0.00	46.42	0.00****
Nonminority female	0.00	10.54	0.00****
M/WBE total	0.00	56.96	0.00****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (NAICS 7114)			
African American	0.00	16.48	0.00
Hispanic	0.00	5.71	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	22.20	0.00****
Nonminority female	0.00	16.48	0.00
M/WBE total	0.00	38.68	0.00****
Waste Collection (NAICS 5621)			
African American	0.00	0.00	
Hispanic	0.00	50.00	0.00****
Asian/Pacific Islander	100.00	0.00	
Native American	0.00	0.00	
Minority	100.00	50.00	
Nonminority female	0.00	50.00	0.00****
M/WBE total	100.00	100.00	100.00

Source and Notes: *See* Table 6.4.

Table AD.7. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Other Services Contracting (Dollars Awarded)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Employment Services (NAICS 5613)			
African American	0.00	4.05	0.00 ****
Hispanic	19.42	31.78	61.11
Asian/Pacific Islander	0.00	2.95	0.00 ****
Native American	0.00	3.95	0.00 ****
Minority	19.42	42.72	45.46 *
Nonminority female	0.00	10.48	0.00 ****
M/WBE total	19.42	53.20	36.50 **
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.78	0.00 ****
Hispanic	0.00	35.89	0.00 ****
Asian/Pacific Islander	0.00	0.74	0.00
Native American	0.00	0.00	
Minority	0.00	41.41	0.00 ****
Nonminority female	0.00	11.96	0.00 ****
M/WBE total	0.00	53.37	0.00 ****
Services to Buildings and Dwellings (NAICS 5617)			
African American	5.35	4.39	
Hispanic	35.98	41.62	86.46
Asian/Pacific Islander	0.00	2.21	0.00 ****
Native American	0.00	0.19	0.00
Minority	41.34	48.41	85.38
Nonminority female	16.14	16.73	96.49
M/WBE total	57.48	65.14	88.23
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.78	0.00 ****
Hispanic	2.94	21.66	13.59 ****
Asian/Pacific Islander	0.00	8.22	0.00 ****
Native American	0.00	3.18	0.00 ****
Minority	2.94	39.85	7.39 ****
Nonminority female	18.22	13.76	
M/WBE total	21.16	53.61	39.48 ****
Investigation and Security Services (NAICS 5616)			
African American	0.00	3.88	0.00 ****
Hispanic	4.54	26.94	16.84
Asian/Pacific Islander	10.10	4.81	
Native American	0.00	0.97	0.00
Minority	14.63	36.60	39.98
Nonminority female	0.28	12.52	2.23
M/WBE total	14.91	49.13	30.36

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Equipment Contractors (NAICS 2382)			
African American	0.00	0.65	0.00 ****
Hispanic	9.26	28.27	32.76 ****
Asian/Pacific Islander	2.03	0.03	
Native American	0.00	0.65	0.00 ****
Minority	11.29	29.61	38.15 ****
Nonminority female	1.67	18.18	9.17 ****
M/WBE total	12.96	47.79	27.12 ****
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	0.00	4.26	0.00 ****
Hispanic	0.00	34.84	0.00 ****
Asian/Pacific Islander	0.00	2.13	0.00 ****
Native American	0.00	0.00	
Minority	0.00	41.22	0.00 ****
Nonminority female	0.00	28.19	0.00 ****
M/WBE total	0.00	69.41	0.00 ****
Special Food Services (NAICS 7223)			
African American	0.00	1.87	0.00
Hispanic	100.00	25.20	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	100.00	27.07	
Nonminority female	0.00	3.70	0.00
M/WBE total	100.00	30.77	
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.00	2.36	0.00 ****
Hispanic	0.00	13.89	0.00 ****
Asian/Pacific Islander	0.00	0.64	0.00 ***
Native American	0.00	1.70	0.00 ****
Minority	0.00	18.59	0.00 ****
Nonminority female	0.79	24.81	3.20 ****
M/WBE total	0.79	43.40	1.83 ****
Individual and Family Services (NAICS 6241)			
African American	0.00	5.45	0.00 ****
Hispanic	0.00	36.44	0.00 ****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.99	0.00 ****
Nonminority female	0.00	12.29	0.00 ****
M/WBE total	0.00	54.28	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Waste Treatment and Disposal (NAICS 5622)			
African American	0.00	0.00	
Hispanic	0.00	20.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	10.00	0.00 ****
Minority	0.00	30.00	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	30.00	0.00 ****
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00 ****
Hispanic	0.00	36.16	0.00 ****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00 ****
Nonminority female	0.00	12.08	0.00 ****
M/WBE total	0.00	53.07	0.00 ****
Other Specialty Trade Contractors (NAICS 2389)			
African American	0.00	0.00	
Hispanic	0.00	21.81	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	21.81	0.00 ****
Nonminority female	0.00	19.53	0.00 ****
M/WBE total	0.00	41.34	0.00 ****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	1.20	8.43	14.25 ***
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	1.20	8.43	14.25 ***
Nonminority female	39.98	31.02	
M/WBE total	41.18	39.45	
Home Health Care Services (NAICS 6216)			
African American	0.00	8.61	0.00
Hispanic	0.00	44.24	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	52.85	0.00 ****
Nonminority female	0.00	22.91	0.00 ****
M/WBE total	0.00	75.76	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.00	1.07	0.00 ****
Hispanic	37.76	16.99	
Asian/Pacific Islander	0.00	5.00	0.00 ****
Native American	0.00	4.04	0.00 ****
Minority	37.76	27.10	
Nonminority female	0.00	9.14	0.00 ****
M/WBE total	37.76	36.24	
Clothing Stores (NAICS 4481)			
African American	0.00	12.28	0.00
Hispanic	0.00	25.65	0.00 ****
Asian/Pacific Islander	0.00	0.64	0.00
Native American	0.00	0.00	
Minority	0.00	38.58	0.00 ****
Nonminority female	100.00	52.74	
M/WBE total	100.00	91.31	
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	100.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****
Charter Bus Industry (NAICS 4855)			
African American	0.00	0.00	
Hispanic	0.00	22.22	0.00
Asian/Pacific Islander	0.00	11.11	0.00
Native American	0.00	0.00	
Minority	0.00	33.33	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	33.33	0.00
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Nonresidential Building Construction (NAICS 2362)			
African American	0.00	2.11	0.00 ****
Hispanic	86.27	26.42	
Asian/Pacific Islander	0.00	2.11	0.00 ****
Native American	0.00	0.42	0.00 ****
Minority	86.27	31.07	
Nonminority female	5.32	8.69	61.20
M/WBE total	91.59	39.76	
Drycleaning and Laundry Services (NAICS 8123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	0.00	20.00	0.00 ****
Travel Arrangement and Reservation Services (NAICS 5615)			
African American	0.00	1.44	0.00
Hispanic	50.00	12.56	
Asian/Pacific Islander	0.00	3.87	0.00
Native American	0.00	3.87	0.00
Minority	50.00	21.74	
Nonminority female	50.00	69.57	71.88
M/WBE total	100.00	91.30	
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.81	0.00 ****
Hispanic	0.00	35.77	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.58	0.00 ****
Nonminority female	0.00	11.92	0.00 ****
M/WBE total	0.00	53.50	0.00 ****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00 ****
Asian/Pacific Islander	0.00	7.16	0.00 ****
Native American	0.00	0.00	
Minority	0.00	15.89	0.00 ****
Nonminority female	0.00	4.69	0.00 ****
M/WBE total	0.00	20.57	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	75.13	0.94	
Hispanic	0.24	44.78	0.53 ****
Asian/Pacific Islander	0.00	0.94	0.00 ****
Native American	0.00	1.77	0.00 ****
Minority	75.37	48.41	
Nonminority female	24.63	14.75	
M/WBE total	100.00	63.16	
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	2.49	0.00 ****
Hispanic	25.40	26.67	95.27
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	25.40	29.16	87.13
Nonminority female	5.56	24.76	22.45
M/WBE total	30.96	53.91	57.43
Specialized Freight Trucking (NAICS 4842)			
African American	0.00	2.22	0.00 ****
Hispanic	14.16	17.78	79.67
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	14.16	20.00	70.81
Nonminority female	0.00	25.56	0.00 ****
M/WBE total	14.16	45.56	31.09 ****
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00 ****
Hispanic	0.07	1.37	5.08
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	0.07	10.45	0.67 ****
Nonminority female	0.06	25.71	0.22 ****
M/WBE total	0.13	36.16	0.35 ****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	1.15	0.00 ****
Hispanic	0.17	21.71	0.77 ****
Asian/Pacific Islander	0.00	0.17	0.00 ***
Native American	0.00	1.59	0.00 ****
Minority	0.17	24.63	0.67 ****
Nonminority female	4.26	13.43	31.71 ****
M/WBE total	4.43	38.06	11.63 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00 ****
Nonminority female	0.00	23.00	0.00 ****
M/WBE total	0.00	65.00	0.00 ****
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	33.33	0.00 ****
Nonminority female	0.00	33.33	0.00 ****
M/WBE total	0.00	66.67	0.00 ****
Home Furnishings Stores (NAICS 4422)			
African American	0.00	0.00	
Hispanic	100.00	29.60	
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.86	0.00
Minority	100.00	31.32	
Nonminority female	0.00	25.86	0.00 ****
M/WBE total	100.00	57.18	
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.28	0.00
Hispanic	0.00	12.70	0.00 ****
Asian/Pacific Islander	0.00	0.03	0.00
Native American	0.00	7.09	0.00 ****
Minority	0.00	20.11	0.00 ****
Nonminority female	0.00	15.37	0.00 ****
M/WBE total	0.00	35.47	0.00 ****
Other Personal Services (NAICS 8129)			
African American	0.00	0.00	
Hispanic	0.00	12.50	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	12.50	0.00 ****
Nonminority female	23.02	43.75	52.63 ****
M/WBE total	23.02	56.25	40.93 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Specialized Design Services (NAICS 5414)			
African American	16.14	4.14	
Hispanic	0.00	17.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	16.14	21.14	76.34
Nonminority female	0.00	46.49	0.00 ****
M/WBE total	16.14	67.63	23.87 ****
Automotive Equipment Rental and Leasing (NAICS 5321)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	2.57	0.00
M/WBE total	0.00	2.57	0.00
Electronic Shopping and Mail-Order Houses (NAICS 4541)			
African American	0.00	0.00	
Hispanic	0.00	10.90	0.00 ****
Asian/Pacific Islander	0.00	3.39	0.00
Native American	0.00	0.00	
Minority	0.00	14.29	0.00 ****
Nonminority female	0.00	38.74	0.00 ****
M/WBE total	0.00	53.03	0.00 ****
Motion Picture and Video Industries (NAICS 5121)			
African American	0.00	6.13	0.00 ****
Hispanic	0.00	17.07	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	5.17	0.00 ****
Minority	0.00	28.37	0.00 ****
Nonminority female	0.00	19.95	0.00 ****
M/WBE total	0.00	48.32	0.00 ****
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)			
African American	0.00	0.00	
Hispanic	0.00	5.46	0.00
Asian/Pacific Islander	0.00	18.81	0.00 ****
Native American	0.00	0.00	
Minority	0.00	24.27	0.00 ****
Nonminority female	0.00	15.67	0.00 ****
M/WBE total	0.00	39.94	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)			
African American	0.00	0.00	
Hispanic	0.00	50.00	0.00 ****
Asian/Pacific Islander	0.00	15.38	0.00 ****
Native American	0.00	0.00	
Minority	0.00	65.38	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	65.38	0.00 ****
Audio and Video Equipment Manufacturing (NAICS 3343)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	33.33	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	66.67	0.00 ****
Nonminority female	100.00	0.00	
M/WBE total	100.00	66.67	
Grocery and Related Product Merchant Wholesalers (NAICS 4244)			
African American	0.00	5.71	0.00
Hispanic	78.52	39.90	
Asian/Pacific Islander	0.00	2.29	0.00
Native American	0.00	0.00	
Minority	78.52	47.90	
Nonminority female	0.00	11.62	0.00
M/WBE total	78.52	59.52	
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)			
African American	0.00	0.00	
Hispanic	0.00	16.67	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	16.67	0.00 ****
Nonminority female	0.00	21.51	0.00 ****
M/WBE total	0.00	38.18	0.00 ****
Child Day Care Services (NAICS 6244)			
African American	0.00	6.38	0.00
Hispanic	0.00	37.13	0.00 ****
Asian/Pacific Islander	0.00	0.93	0.00
Native American	0.00	0.00	
Minority	0.00	44.44	0.00 ****
Nonminority female	0.00	15.85	0.00 ****
M/WBE total	0.00	60.28	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)			
African American	0.00	0.00	
Hispanic	0.00	20.92	0.00 ****
Asian/Pacific Islander	0.00	3.04	0.00 ****
Native American	0.00	1.04	0.00 ****
Minority	0.00	25.00	0.00 ****
Nonminority female	0.00	16.75	0.00 ****
M/WBE total	0.00	41.75	0.00 ****
Other Electrical Equipment and Component Manufacturing (NAICS 3359)			
African American	0.00	0.00	
Hispanic	0.00	10.02	0.00 ****
Asian/Pacific Islander	0.00	6.99	0.00
Native American	0.00	0.00	
Minority	0.00	17.02	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	17.02	0.00 ****
Performing Arts Companies (NAICS 7111)			
African American	0.00	4.82	0.00 ****
Hispanic	0.44	36.14	1.21 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.44	40.96	1.07 ****
Nonminority female	0.00	12.05	0.00 ****
M/WBE total	0.44	53.01	0.82 ****
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)			
African American	0.00	0.00	
Hispanic	0.07	43.33	0.16 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.07	43.33	0.16 ****
Nonminority female	0.00	18.89	0.00 ****
M/WBE total	0.07	62.22	0.11 ****
Taxi and Limousine Service (NAICS 4853)			
African American	0.00	0.00	
Hispanic	0.00	40.79	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	40.79	0.00
Nonminority female	0.00	19.74	0.00
M/WBE total	0.00	60.53	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Health and Personal Care Stores (NAICS 4461)			
African American	0.00	2.04	0.00
Hispanic	0.00	41.50	0.00 ****
Asian/Pacific Islander	0.00	7.03	0.00
Native American	0.00	0.00	
Minority	0.00	50.57	0.00 ****
Nonminority female	100.00	13.15	
M/WBE total	100.00	63.72	
Automotive Repair and Maintenance (NAICS 8111)			
African American	34.54	13.45	
Hispanic	0.00	35.30	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	8.40	0.00 ****
Minority	34.54	57.15	60.44 ***
Nonminority female	0.00	9.25	0.00 ****
M/WBE total	34.54	66.40	52.02 ****
Educational Support Services (NAICS 6117)			
African American	0.00	5.26	0.00 ****
Hispanic	0.00	7.89	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.16	0.00 ****
Nonminority female	0.00	26.75	0.00 ****
M/WBE total	0.00	39.91	0.00 ****
Offices of Other Health Practitioners (NAICS 6213)			
African American	0.00	0.75	0.00
Hispanic	0.00	25.79	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	26.54	0.00 ****
Nonminority female	0.00	32.11	0.00 ****
M/WBE total	0.00	58.65	0.00 ****
Spectator Sports (NAICS 7112)			
African American	0.00	50.00	0.00 ****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	50.00	0.00 ****
Nonminority female	0.00	25.00	0.00
M/WBE total	0.00	75.00	0.00 ****

Source and Notes: *See* Table 6.4.

Table AD.8. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Other Services Contracting (Dollars Paid)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Employment Services (NAICS 5613)			
African American	0.00	5.93	0.00 ***
Hispanic	14.18	32.33	43.85
Asian/Pacific Islander	0.00	4.16	0.00
Native American	0.00	3.42	0.00
Minority	14.18	45.84	30.93 *
Nonminority female	0.00	12.19	0.00 ****
M/WBE total	14.18	58.02	24.43 ****
Business, Professional, Labor, Political, and Similar Organizations (NAICS 8139)			
African American	0.00	4.78	0.00
Hispanic	0.00	35.90	0.00 ****
Asian/Pacific Islander	0.00	0.73	0.00
Native American	0.00	0.00	
Minority	0.00	41.41	0.00 ****
Nonminority female	0.00	11.96	0.00 ****
M/WBE total	0.00	53.37	0.00 ****
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	0.00	4.26	0.00 ****
Hispanic	0.00	34.84	0.00 ****
Asian/Pacific Islander	0.00	2.13	0.00 ****
Native American	0.00	0.00	
Minority	0.00	41.22	0.00 ****
Nonminority female	0.00	28.19	0.00 ****
M/WBE total	0.00	69.41	0.00 ****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.52	4.77	10.84 ***
Hispanic	49.81	41.70	
Asian/Pacific Islander	0.00	2.57	0.00 ****
Native American	0.00	0.08	0.00
Minority	50.33	49.12	
Nonminority female	5.33	17.52	30.42 ****
M/WBE total	55.66	66.64	83.53 **
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.61	0.00 ****
Hispanic	5.08	19.44	26.14 **
Asian/Pacific Islander	0.00	8.36	0.00 ****
Native American	0.00	2.82	0.00 ****
Minority	5.08	37.23	13.65 ****
Nonminority female	40.59	15.35	
M/WBE total	45.67	52.58	86.86

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Special Food Services (NAICS 7223)			
African American	0.00	1.10	0.00
Hispanic	100.00	25.12	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	100.00	26.22	
Nonminority female	0.00	2.17	0.00
M/WBE total	100.00	28.38	
Individual and Family Services (NAICS 6241)			
African American	0.00	5.45	0.00 ****
Hispanic	0.00	36.44	0.00 ****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.99	0.00 ****
Nonminority female	0.00	12.29	0.00 ****
M/WBE total	0.00	54.28	0.00 ****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	1.05	8.43	12.51 ***
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	1.05	8.43	12.51 ***
Nonminority female	41.08	31.02	
M/WBE total	42.13	39.45	
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.00	3.43	0.00 ****
Hispanic	0.00	12.86	0.00 ****
Asian/Pacific Islander	0.00	0.26	0.00 **
Native American	0.00	0.06	0.00
Minority	0.00	16.61	0.00 ****
Nonminority female	1.28	24.00	5.35 ****
M/WBE total	1.28	40.61	3.16 ****
Civic and Social Organizations (NAICS 8134)			
African American	0.00	4.82	0.00 ****
Hispanic	0.00	36.16	0.00 ****
Asian/Pacific Islander	0.00	0.02	0.00
Native American	0.00	0.00	
Minority	0.00	40.99	0.00 ****
Nonminority female	0.00	12.08	0.00 ****
M/WBE total	0.00	53.07	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.00	0.96	0.00 ****
Hispanic	46.99	15.94	
Asian/Pacific Islander	0.00	5.29	0.00 ****
Native American	0.00	4.12	0.00 ****
Minority	46.99	26.31	
Nonminority female	0.00	8.95	0.00 ****
M/WBE total	46.99	35.26	
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	100.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****
Nonresidential Building Construction (NAICS 2362)			
African American	0.00	2.11	0.00 ****
Hispanic	89.69	26.42	
Asian/Pacific Islander	0.00	2.11	0.00 ****
Native American	0.00	0.42	0.00 *
Minority	89.69	31.07	
Nonminority female	1.20	8.69	13.85 ***
M/WBE total	90.89	39.76	
Social Advocacy Organizations (NAICS 8133)			
African American	0.00	5.81	0.00 ****
Hispanic	0.00	35.77	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	41.58	0.00 ****
Nonminority female	0.00	11.92	0.00 ****
M/WBE total	0.00	53.50	0.00 ****
Museums, Historical Sites, and Similar Institutions (NAICS 7121)			
African American	0.00	0.00	
Hispanic	0.00	1.03	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	1.03	0.00
Nonminority female	0.00	2.20	0.00
M/WBE total	0.00	3.23	0.00

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Drycleaning and Laundry Services (NAICS 8123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	0.00	20.00	0.00 ****
Home Health Care Services (NAICS 6216)			
African American	0.00	8.61	0.00
Hispanic	0.00	44.24	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	52.85	0.00 ****
Nonminority female	0.00	22.91	0.00
M/WBE total	0.00	75.76	0.00 ****
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	2.50	0.00
Hispanic	26.09	26.68	97.80
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	26.09	29.18	89.43
Nonminority female	2.61	24.82	10.51 ***
M/WBE total	28.70	53.99	53.15
Independent Artists, Writers, and Performers (NAICS 7115)			
African American	0.00	7.95	0.00 ****
Hispanic	0.08	1.37	5.57
Asian/Pacific Islander	0.00	0.86	0.00
Native American	0.00	0.27	0.00
Minority	0.08	10.45	0.73 ****
Nonminority female	0.06	25.71	0.24 ****
M/WBE total	0.14	36.16	0.38 ****
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	1.43	0.00 ****
Hispanic	0.19	21.31	0.91 ****
Asian/Pacific Islander	0.00	6.44	0.00 ****
Native American	0.00	2.81	0.00 ****
Minority	0.19	31.99	0.60 ****
Nonminority female	0.00	21.92	0.00 ****
M/WBE total	0.19	53.91	0.36 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Travel Arrangement and Reservation Services (NAICS 5615)			
African American	0.00	1.44	0.00
Hispanic	0.00	12.56	0.00
Asian/Pacific Islander	0.00	3.87	0.00
Native American	0.00	3.87	0.00
Minority	0.00	21.74	0.00
Nonminority female	100.00	69.57	
M/WBE total	100.00	91.30	
Colleges, Universities, and Professional Schools (NAICS 6113)			
African American	0.00	0.00	
Hispanic	0.00	42.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.00	0.00 ****
Nonminority female	0.00	23.00	0.00 ****
M/WBE total	0.00	65.00	0.00 ****
Building Equipment Contractors (NAICS 2382)			
African American	0.00	3.21	0.00 ****
Hispanic	0.60	39.20	1.54 ****
Asian/Pacific Islander	38.07	0.00	
Native American	0.00	2.89	0.00 ****
Minority	38.68	45.30	85.38
Nonminority female	28.71	10.96	
M/WBE total	67.39	56.26	
Other Personal Services (NAICS 8129)			
African American	0.00	0.17	0.00
Hispanic	0.00	27.90	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	28.08	0.00 ****
Nonminority female	27.73	36.99	74.96
M/WBE total	27.73	65.07	42.61 ****
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.00	0.00	
Hispanic	0.00	24.63	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	24.63	0.00 ****
Nonminority female	100.00	21.18	
M/WBE total	100.00	45.81	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00 ****
Asian/Pacific Islander	0.00	7.16	0.00 ***
Native American	0.00	0.00	
Minority	0.00	15.89	0.00 ****
Nonminority female	0.00	4.69	0.00 ***
M/WBE total	0.00	20.57	0.00 ****
Specialized Freight Trucking (NAICS 4842)			
African American	0.00	2.22	0.00 ***
Hispanic	0.00	17.78	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	20.00	0.00 ****
Nonminority female	0.00	25.56	0.00 ****
M/WBE total	0.00	45.56	0.00 ****
Electronic Shopping and Mail-Order Houses (NAICS 4541)			
African American	0.00	0.00	
Hispanic	0.00	10.90	0.00 ***
Asian/Pacific Islander	0.00	3.39	0.00
Native American	0.00	0.00	
Minority	0.00	14.29	0.00 ***
Nonminority female	0.00	38.74	0.00 ****
M/WBE total	0.00	53.03	0.00 ****
Other Electrical Equipment and Component Manufacturing (NAICS 3359)			
African American	0.00	0.00	
Hispanic	0.00	10.02	0.00 ****
Asian/Pacific Islander	0.00	6.99	0.00
Native American	0.00	0.00	
Minority	0.00	17.02	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	17.02	0.00 ****
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)			
African American	0.00	0.00	
Hispanic	0.00	50.00	0.00 ****
Asian/Pacific Islander	0.00	15.38	0.00 ****
Native American	0.00	0.00	
Minority	0.00	65.38	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	65.38	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.00	
Hispanic	0.00	21.67	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	12.92	0.00 ****
Minority	0.00	34.58	0.00 ****
Nonminority female	0.00	26.67	0.00 ****
M/WBE total	0.00	61.25	0.00 ****
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)			
African American	0.00	0.00	
Hispanic	0.00	16.67	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	16.67	0.00 ****
Nonminority female	0.00	21.51	0.00 ****
M/WBE total	0.00	38.18	0.00 ****
Audio and Video Equipment Manufacturing (NAICS 3343)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	33.33	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	66.67	0.00 ****
Nonminority female	100.00	0.00	
M/WBE total	100.00	66.67	
Automotive Equipment Rental and Leasing (NAICS 5321)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	2.57	0.00
M/WBE total	0.00	2.57	0.00
Child Day Care Services (NAICS 6244)			
African American	0.00	6.38	0.00
Hispanic	0.00	37.13	0.00 ****
Asian/Pacific Islander	0.00	0.93	0.00
Native American	0.00	0.00	
Minority	0.00	44.44	0.00 ****
Nonminority female	0.00	15.85	0.00
M/WBE total	0.00	60.28	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Grocery and Related Product Merchant Wholesalers (NAICS 4244)			
African American	0.00	5.71	0.00
Hispanic	100.00	39.90	
Asian/Pacific Islander	0.00	2.29	0.00
Native American	0.00	0.00	
Minority	100.00	47.90	
Nonminority female	0.00	11.62	0.00
M/WBE total	100.00	59.52	
Promoters of Performing Arts, Sports, and Similar Events (NAICS 7113)			
African American	0.00	0.00	
Hispanic	0.05	43.33	0.12 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.05	43.33	0.12 ****
Nonminority female	0.00	18.89	0.00 ****
M/WBE total	0.05	62.22	0.09 ****
Performing Arts Companies (NAICS 7111)			
African American	0.00	4.82	0.00 ****
Hispanic	0.44	36.14	1.21 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.44	40.96	1.07 ****
Nonminority female	0.00	12.05	0.00 ****
M/WBE total	0.44	53.01	0.82 ****
Taxi and Limousine Service (NAICS 4853)			
African American	0.00	0.00	
Hispanic	0.00	40.79	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	40.79	0.00
Nonminority female	0.00	19.74	0.00
M/WBE total	0.00	60.53	0.00 ****
Health and Personal Care Stores (NAICS 4461)			
African American	0.00	2.04	0.00
Hispanic	0.00	41.50	0.00
Asian/Pacific Islander	0.00	7.03	0.00
Native American	0.00	0.00	
Minority	0.00	50.57	0.00 ****
Nonminority female	100.00	13.15	
M/WBE total	100.00	63.72	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Spectator Sports (NAICS 7112)			
African American	0.00	50.00	0.00 ****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	50.00	0.00 ****
Nonminority female	0.00	25.00	0.00
M/WBE total	0.00	75.00	0.00 ****
Offices of Other Health Practitioners (NAICS 6213)			
African American	0.00	0.75	0.00
Hispanic	0.00	25.79	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	26.54	0.00 ****
Nonminority female	0.00	32.11	0.00 ****
M/WBE total	0.00	58.65	0.00 ****
Automotive Repair and Maintenance (NAICS 8111)			
African American	29.01	13.45	
Hispanic	0.00	35.30	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	8.40	0.00 ****
Minority	29.01	57.15	50.77 ***
Nonminority female	0.00	9.25	0.00 ****
M/WBE total	29.01	66.40	43.70 ****
Support Activities for Air Transportation (NAICS 4881)			
African American	0.00	4.50	0.00
Hispanic	0.00	36.23	0.00
Asian/Pacific Islander	0.00	0.30	0.00
Native American	0.00	0.00	
Minority	0.00	41.03	0.00
Nonminority female	33.44	11.64	
M/WBE total	33.44	52.68	63.48 ****
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS 8113)			
African American	0.00	0.00	
Hispanic	0.00	21.40	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	3.59	0.00
Minority	0.00	24.99	0.00 ****
Nonminority female	0.00	16.69	0.00 ****
M/WBE total	0.00	41.67	0.00 ****

Source and Notes: *See* Table 6.4.

Table AD.9. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Goods & Supplies Contracting (Dollars Awarded)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Automobile Dealers (NAICS 4411)			
African American	0.00	0.05	0.00
Hispanic	0.00	31.13	0.00 ****
Asian/Pacific Islander	0.00	2.16	0.00 ****
Native American	0.00	0.00	
Minority	0.00	33.34	0.00 ****
Nonminority female	0.00	6.73	0.00 ****
M/WBE total	0.00	40.06	0.00 ****
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)			
African American	0.00	0.00	
Hispanic	0.00	7.35	0.00 ****
Asian/Pacific Islander	80.28	0.00	
Native American	0.00	0.00	
Minority	80.28	7.35	
Nonminority female	0.00	19.39	0.00 ****
M/WBE total	80.28	26.75	
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	20.10	2.19	
Hispanic	0.93	22.68	4.12 ****
Asian/Pacific Islander	0.00	0.87	0.00 ****
Native American	0.00	0.27	0.00
Minority	21.04	26.02	80.87
Nonminority female	10.93	16.52	66.16
M/WBE total	31.97	42.54	75.16
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.85	0.00 ****
Hispanic	0.13	22.45	0.57 ****
Asian/Pacific Islander	0.00	8.18	0.00 ****
Native American	0.00	3.31	0.00 ****
Minority	0.13	40.79	0.32 ****
Nonminority female	0.57	13.20	4.34 ****
M/WBE total	0.70	53.98	1.30 ****
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	0.00	24.23	0.00 ****
Asian/Pacific Islander	40.97	6.30	
Native American	0.00	0.98	0.00 ****
Minority	40.97	31.51	
Nonminority female	1.54	17.37	8.84 ****
M/WBE total	42.51	48.88	86.96

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	1.88	0.00 ****
Hispanic	0.87	19.91	4.39 ****
Asian/Pacific Islander	0.00	8.13	0.00 ****
Native American	0.00	2.79	0.00 ****
Minority	0.87	32.70	2.67 ****
Nonminority female	0.18	19.32	0.94 ****
M/WBE total	1.06	52.02	2.03 ****
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)			
African American	0.00	0.00	
Hispanic	0.00	5.46	0.00
Asian/Pacific Islander	0.00	18.81	0.00 ****
Native American	0.00	0.00	
Minority	0.00	24.27	0.00 ****
Nonminority female	0.00	15.67	0.00 ****
M/WBE total	0.00	39.94	0.00 ****
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)			
African American	0.00	0.00	
Hispanic	0.00	25.08	0.00 ****
Asian/Pacific Islander	0.00	0.47	0.00
Native American	0.00	0.11	0.00
Minority	0.00	25.66	0.00 ****
Nonminority female	4.17	14.65	28.49 **
M/WBE total	4.17	40.31	10.35 ****
Office Supplies, Stationery, and Gift Stores (NAICS 4532)			
African American	0.00	0.00	
Hispanic	0.00	25.51	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	25.51	0.00 ****
Nonminority female	0.00	14.63	0.00 ****
M/WBE total	0.00	40.14	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)			
African American	0.00	0.00	
Hispanic	7.65	31.43	24.35 *
Asian/Pacific Islander	0.00	0.31	0.00
Native American	0.00	0.31	0.00
Minority	7.65	32.05	23.88 **
Nonminority female	0.59	1.79	32.84
M/WBE total	8.24	33.84	24.35 **
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)			
African American	0.00	0.00	
Hispanic	0.00	14.04	0.00 ****
Asian/Pacific Islander	0.00	5.04	0.00 ****
Native American	0.00	0.00	
Minority	0.00	19.08	0.00 ****
Nonminority female	0.33	29.25	1.14 ****
M/WBE total	0.33	48.33	0.69 ****
Other Telecommunications (NAICS 5179)			
African American	0.00	0.00	
Hispanic	0.00	12.84	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.49	0.00
Minority	0.00	14.33	0.00
Nonminority female	0.00	11.34	0.00
M/WBE total	0.00	25.67	0.00 ****
Communications Equipment Manufacturing (NAICS 3342)			
African American	0.00	0.00	
Hispanic	0.00	9.74	0.00 ****
Asian/Pacific Islander	0.00	8.71	0.00 ****
Native American	0.00	0.00	
Minority	0.00	18.45	0.00 ****
Nonminority female	0.00	8.71	0.00 ****
M/WBE total	0.00	27.15	0.00 ****
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.00	0.96	0.00 ****
Hispanic	0.00	15.94	0.00 ****
Asian/Pacific Islander	0.00	5.29	0.00 ****
Native American	0.00	4.12	0.00 ****
Minority	0.00	26.31	0.00 ****
Nonminority female	0.00	8.95	0.00 ****
M/WBE total	0.00	35.26	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.73	0.00 ****
Hispanic	19.74	29.84	66.17 **
Asian/Pacific Islander	5.06	0.01	
Native American	0.00	1.58	0.00 ****
Minority	24.80	33.17	74.77 *
Nonminority female	0.00	16.11	0.00 ****
M/WBE total	24.80	49.28	50.33 ****
Aerospace Product and Parts Manufacturing (NAICS 3364)			
African American	0.00	4.50	0.00
Hispanic	0.00	31.53	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	36.03	0.00 ****
Nonminority female	0.00	26.13	0.00 ****
M/WBE total	0.00	62.17	0.00 ****
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)			
African American	0.00	0.00	
Hispanic	0.00	20.17	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	20.17	0.00 ****
Nonminority female	0.00	10.98	0.00 ****
M/WBE total	0.00	31.16	0.00 ****
Computer and Peripheral Equipment Manufacturing (NAICS 3341)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	4.48	0.00
Native American	0.00	0.00	
Minority	0.00	4.48	0.00
Nonminority female	0.00	21.26	0.00 ****
M/WBE total	0.00	25.74	0.00 ****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00 ****
Asian/Pacific Islander	0.00	7.16	0.00 ****
Native American	0.00	0.00	
Minority	0.00	15.89	0.00 ****
Nonminority female	0.00	4.69	0.00 ****
M/WBE total	0.00	20.57	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)			
African American	0.00	6.44	0.00 ****
Hispanic	0.00	7.28	0.00 ****
Asian/Pacific Islander	0.00	4.63	0.00 ****
Native American	0.00	0.00	
Minority	0.00	18.36	0.00 ****
Nonminority female	1.66	5.43	30.62
M/WBE total	1.66	23.79	6.99 ****
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	6.32	0.00 ****
Asian/Pacific Islander	0.00	13.91	0.00 ****
Native American	0.00	0.00	
Minority	0.00	20.23	0.00 ****
Nonminority female	0.00	39.32	0.00 ****
M/WBE total	0.00	59.55	0.00 ****
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	81.33	34.87	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00 ****
Minority	81.33	36.54	
Nonminority female	4.92	13.72	35.85
M/WBE total	86.25	50.26	
Petroleum and Coal Products Manufacturing (NAICS 3241)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Audio and Video Equipment Manufacturing (NAICS 3343)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	33.33	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	66.67	0.00 ****
Nonminority female	4.73	0.00	
M/WBE total	4.73	66.67	7.09 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	1.96	0.00 ****
Hispanic	0.00	26.27	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	28.24	0.00 ****
Nonminority female	0.00	23.71	0.00 ****
M/WBE total	0.00	51.95	0.00 ****
Paper and Paper Product Merchant Wholesalers (NAICS 4241)			
African American	0.00	3.49	0.00 ****
Hispanic	11.35	9.78	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	11.35	13.27	85.53
Nonminority female	0.00	9.78	0.00 ****
M/WBE total	11.35	23.04	49.25
Automotive Repair and Maintenance (NAICS 8111)			
African American	0.00	3.12	0.00 ****
Hispanic	0.00	41.59	0.00 ****
Asian/Pacific Islander	0.00	3.33	0.00 ****
Native American	0.00	2.60	0.00 ****
Minority	0.00	50.63	0.00 ****
Nonminority female	0.00	10.76	0.00 ****
M/WBE total	0.00	61.39	0.00 ****
Other Miscellaneous Manufacturing (NAICS 3399)			
African American	0.00	1.72	0.00 ****
Hispanic	3.23	38.67	8.36 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.06	0.00
Minority	3.23	41.45	7.80 ****
Nonminority female	0.00	11.07	0.00 ****
M/WBE total	3.23	52.52	6.16 ****
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)			
African American	0.00	1.63	0.00
Hispanic	0.00	11.16	0.00 ****
Asian/Pacific Islander	0.00	2.00	0.00
Native American	0.00	0.00	
Minority	0.00	14.79	0.00 ****
Nonminority female	0.00	38.18	0.00 ****
M/WBE total	0.00	52.96	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Material and Supplies Dealers (NAICS 4441)			
African American	0.00	0.00	
Hispanic	0.00	17.70	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	17.70	0.00 ****
Nonminority female	0.00	16.96	0.00 ****
M/WBE total	0.00	34.66	0.00 ****
Nonresidential Building Construction (NAICS 2362)			
African American	0.00	2.11	0.00 ****
Hispanic	0.00	26.42	0.00 ****
Asian/Pacific Islander	0.00	2.11	0.00 ****
Native American	0.00	0.42	0.00 ****
Minority	0.00	31.07	0.00 ****
Nonminority female	15.21	8.69	
M/WBE total	15.21	39.76	38.25
Automotive Equipment Rental and Leasing (NAICS 5321)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	1.80	0.00
M/WBE total	0.00	1.80	0.00
Motor Vehicle Manufacturing (NAICS 3361)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)			
African American	0.00	0.00	
Hispanic	0.00	23.45	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	23.45	0.00 ****
Nonminority female	0.00	9.17	0.00 ****
M/WBE total	0.00	32.62	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)			
African American	0.00	0.00	
Hispanic	0.00	15.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	15.00	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	15.00	0.00 ****
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.00	2.70	0.00 ****
Hispanic	0.00	3.81	0.00 ****
Asian/Pacific Islander	0.00	0.38	0.00 ***
Native American	0.00	0.58	0.00 ***
Minority	0.00	7.47	0.00 ****
Nonminority female	0.00	3.89	0.00 ****
M/WBE total	0.00	11.36	0.00 ****
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	0.00	21.45	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	21.45	0.00 ****
Nonminority female	4.06	22.81	17.81 ****
M/WBE total	4.06	44.26	9.18 ****
Plastics Product Manufacturing (NAICS 3261)			
African American	0.00	0.00	
Hispanic	0.00	29.63	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	29.63	0.00 ****
Nonminority female	0.00	7.41	0.00 ****
M/WBE total	0.00	37.04	0.00 ****
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.34	0.00
Hispanic	0.00	6.62	0.00 ****
Asian/Pacific Islander	0.00	0.04	0.00
Native American	0.00	2.09	0.00 ****
Minority	0.00	9.09	0.00 ****
Nonminority female	0.00	18.27	0.00 ****
M/WBE total	0.00	27.37	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Printing and Related Support Activities (NAICS 3231)			
African American	0.00	1.88	0.00 ***
Hispanic	0.00	27.75	0.00 ****
Asian/Pacific Islander	0.00	2.36	0.00 ***
Native American	0.00	0.00	
Minority	0.00	31.98	0.00 ****
Nonminority female	0.00	12.35	0.00 ****
M/WBE total	0.00	44.34	0.00 ****
Investigation and Security Services (NAICS 5616)			
African American	0.00	3.05	0.00 ****
Hispanic	48.13	21.38	
Asian/Pacific Islander	0.00	5.42	0.00 ****
Native American	0.00	1.06	0.00
Minority	48.13	30.90	
Nonminority female	0.00	13.12	0.00 ****
M/WBE total	48.13	44.02	
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)			
African American	0.00	0.38	0.00
Hispanic	0.00	35.44	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	35.81	0.00 ****
Nonminority female	0.00	1.51	0.00
M/WBE total	0.00	37.32	0.00 ****
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)			
African American	0.00	0.00	
Hispanic	0.00	2.15	0.00
Asian/Pacific Islander	0.00	7.25	0.00 ****
Native American	0.00	0.00	
Minority	0.00	9.40	0.00 ****
Nonminority female	0.00	52.42	0.00 ****
M/WBE total	0.00	61.82	0.00 ****
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)			
African American	0.00	4.44	0.00 ****
Hispanic	0.00	12.31	0.00 ****
Asian/Pacific Islander	0.00	1.17	0.00
Native American	0.00	0.00	
Minority	0.00	17.93	0.00 ****
Nonminority female	0.00	15.77	0.00 ****
M/WBE total	0.00	33.70	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)			
African American	0.00	2.86	0.00
Hispanic	0.00	30.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	32.86	0.00 ****
Nonminority female	0.00	11.43	0.00 ****
M/WBE total	0.00	44.29	0.00 ****
Electronic Shopping and Mail-Order Houses (NAICS 4541)			
African American	0.00	0.00	
Hispanic	0.00	10.90	0.00 ****
Asian/Pacific Islander	0.00	3.39	0.00
Native American	0.00	0.00	
Minority	0.00	14.29	0.00 ****
Nonminority female	0.00	38.74	0.00 ****
M/WBE total	0.00	53.03	0.00 ****
Remediation and Other Waste Management Services (NAICS 5629)			
African American	0.00	11.52	0.00 ****
Hispanic	86.30	6.06	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	86.30	17.58	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	86.30	37.58	
Motor Vehicle Parts Manufacturing (NAICS 3363)			
African American	0.00	0.00	
Hispanic	0.00	10.00	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	10.00	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	10.00	0.00
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)			
African American	0.00	0.00	
Hispanic	0.00	19.26	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	19.26	0.00 ****
Nonminority female	0.00	2.38	0.00
M/WBE total	0.00	21.63	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (NAICS 3327)			
African American	0.00	0.00	
Hispanic	100.00	39.17	
Asian/Pacific Islander	0.00	5.00	0.00
Native American	0.00	0.00	
Minority	100.00	44.17	
Nonminority female	0.00	5.00	0.00
M/WBE total	100.00	49.17	
Specialized Freight Trucking (NAICS 4842)			
African American	0.00	2.53	0.00 ****
Hispanic	38.61	20.86	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	38.61	23.39	
Nonminority female	0.00	21.12	0.00 ****
M/WBE total	38.61	44.51	86.74
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	100.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)			
African American	0.00	0.00	
Hispanic	0.00	11.76	0.00 ****
Asian/Pacific Islander	0.00	5.88	0.00 ****
Native American	0.00	0.00	
Minority	0.00	17.65	0.00 ****
Nonminority female	0.00	17.65	0.00 ****
M/WBE total	0.00	35.29	0.00 ****
Book Stores and News Dealers (NAICS 4512)			
African American	0.00	0.00	
Hispanic	0.00	13.82	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	4.61	0.00
Minority	0.00	18.43	0.00 ****
Nonminority female	0.00	35.98	0.00 ****
M/WBE total	0.00	54.41	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other Motor Vehicle Dealers (NAICS 4412)			
African American	0.00	4.50	0.00
Hispanic	0.00	23.11	0.00 ****
Asian/Pacific Islander	0.00	4.50	0.00
Native American	0.00	0.00	
Minority	0.00	32.11	0.00 ****
Nonminority female	0.00	4.50	0.00
M/WBE total	0.00	36.61	0.00 ****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00 ***
Hispanic	17.96	48.15	37.30 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	17.96	48.56	36.99 ****
Nonminority female	0.00	9.52	0.00 ****
M/WBE total	17.96	58.08	30.93 ****
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)			
African American	0.00	0.00	
Hispanic	0.00	6.67	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.67	0.00
Nonminority female	0.00	6.67	0.00
M/WBE total	0.00	13.33	0.00 ****
Waste Collection (NAICS 5621)			
African American	0.00	0.00	
Hispanic	0.00	50.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	50.00	0.00 ****
Nonminority female	0.00	50.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****
Pharmaceutical and Medicine Manufacturing (NAICS 3254)			
African American	0.00	4.00	0.00
Hispanic	0.00	28.00	0.00 ****
Asian/Pacific Islander	0.00	8.00	0.00 ****
Native American	0.00	20.00	0.00 ****
Minority	0.00	60.00	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	60.00	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	0.00	19.41	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	19.41	0.00 ****
Nonminority female	0.00	5.88	0.00 *
M/WBE total	0.00	25.29	0.00 ****
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)			
African American	0.00	0.00	
Hispanic	0.00	11.11	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	11.11	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	11.11	0.00 ****
Child Day Care Services (NAICS 6244)			
African American	0.00	6.38	0.00
Hispanic	0.00	37.13	0.00 ****
Asian/Pacific Islander	0.00	0.93	0.00
Native American	0.00	0.00	
Minority	0.00	44.44	0.00 ****
Nonminority female	0.00	15.85	0.00 ****
M/WBE total	0.00	60.28	0.00 ****
Steel Product Manufacturing from Purchased Steel (NAICS 3312)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	25.00	0.00 ****
Native American	0.00	0.00	
Minority	0.00	25.00	0.00 ****
Nonminority female	0.00	25.00	0.00 ****
M/WBE total	0.00	50.00	0.00 ****
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)			
African American	0.00	0.00	
Hispanic	0.00	10.31	0.00 ****
Asian/Pacific Islander	0.00	1.67	0.00
Native American	0.00	0.00	
Minority	0.00	11.98	0.00 ****
Nonminority female	0.00	31.10	0.00 ****
M/WBE total	0.00	43.08	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)			
African American	0.00	1.12	0.00
Hispanic	0.00	17.49	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	4.25	0.00
Minority	0.00	22.86	0.00 ****
Nonminority female	0.00	16.14	0.00 ****
M/WBE total	0.00	39.00	0.00 ****
Other Electrical Equipment and Component Manufacturing (NAICS 3359)			
African American	0.00	0.00	
Hispanic	0.00	10.02	0.00 ****
Asian/Pacific Islander	0.00	6.99	0.00
Native American	0.00	0.00	
Minority	0.00	17.02	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	17.02	0.00 ****
Other Chemical Product and Preparation Manufacturing (NAICS 3259)			
African American	0.00	0.00	
Hispanic	0.00	14.29	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	14.29	0.00
Nonminority female	0.00	28.57	0.00 ****
M/WBE total	0.00	42.86	0.00 ****
Motion Picture and Video Industries (NAICS 5121)			
African American	0.00	11.63	0.00 ****
Hispanic	0.00	30.23	0.00 ****
Asian/Pacific Islander	0.00	5.81	0.00 ****
Native American	0.00	0.00	
Minority	0.00	47.67	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	47.67	0.00 ****
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	48.43	0.00	
M/WBE total	48.43	0.00	

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Drycleaning and Laundry Services (NAICS 8123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	0.00	20.00	0.00 ****
Electric Lighting Equipment Manufacturing (NAICS 3351)			
African American	0.00	0.00	
Hispanic	0.00	16.67	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	16.67	0.00 ****
Nonminority female	0.00	16.67	0.00 ****
M/WBE total	0.00	33.33	0.00 ****
Legal Services (NAICS 5411)			
African American	0.00	0.23	0.00
Hispanic	0.00	96.46	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	96.68	0.00 ****
Nonminority female	0.00	2.82	0.00
M/WBE total	0.00	99.50	0.00 ****
Spring and Wire Product Manufacturing (NAICS 3326)			
African American	0.00	0.00	
Hispanic	100.00	40.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	100.00	40.00	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	100.00	60.00	
Other Specialty Trade Contractors (NAICS 2389)			
African American	15.71	5.46	
Hispanic	0.00	26.22	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	15.71	31.68	49.60 ***
Nonminority female	0.00	17.01	0.00 ****
M/WBE total	15.71	48.69	32.27 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)			
African American	0.00	0.00	
Hispanic	0.00	33.33	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	33.33	0.00 ****
Nonminority female	0.00	33.33	0.00 ****
M/WBE total	0.00	66.67	0.00 ****
Medical Equipment and Supplies Manufacturing (NAICS 3391)			
African American	0.00	0.00	
Hispanic	0.00	6.25	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.25	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	6.25	0.00
Office Administrative Services (NAICS 5611)			
African American	0.00	9.66	0.00
Hispanic	0.00	18.95	0.00 ****
Asian/Pacific Islander	0.00	8.66	0.00
Native American	0.00	0.00	
Minority	0.00	37.26	0.00 ****
Nonminority female	0.00	9.53	0.00
M/WBE total	0.00	46.79	0.00 ****
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (NAICS 3253)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Support Activities for Animal Production (NAICS 1152)			
African American	0.00	0.00	
Hispanic	0.00	13.78	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.78	0.00
Nonminority female	0.00	38.70	0.00 ****
M/WBE total	0.00	52.48	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Individual and Family Services (NAICS 6241)			
African American	0.00	5.45	0.00 ****
Hispanic	0.00	36.44	0.00 ****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.99	0.00 ****
Nonminority female	0.00	12.29	0.00 ****
M/WBE total	0.00	54.28	0.00 ****
Building Finishing Contractors (NAICS 2383)			
African American	0.00	1.27	0.00 ****
Hispanic	0.00	44.53	0.00 ****
Asian/Pacific Islander	0.00	6.18	0.00 ****
Native American	0.00	4.91	0.00 ****
Minority	0.00	56.89	0.00 ****
Nonminority female	0.00	13.63	0.00 ****
M/WBE total	0.00	70.51	0.00 ****

Source and Notes: *See* Table 6.4.

Table AD.10. Industry Group Utilization, Availability, and Disparity Results for City of San Antonio Goods & Supplies Contracting (Dollars Paid)

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Automobile Dealers (NAICS 4411)			
African American	0.00	0.06	0.00
Hispanic	0.00	31.13	0.00 ****
Asian/Pacific Islander	0.00	2.15	0.00 ***
Native American	0.00	0.00	
Minority	0.00	33.35	0.00 ****
Nonminority female	0.00	6.73	0.00 ****
M/WBE total	0.00	40.08	0.00 ****
Computer Systems Design and Related Services (NAICS 5415)			
African American	0.00	6.80	0.00 ****
Hispanic	0.16	21.83	0.72 ****
Asian/Pacific Islander	0.00	8.21	0.00 ****
Native American	0.00	3.21	0.00 ****
Minority	0.16	40.05	0.39 ****
Nonminority female	0.70	13.64	5.11 ****
M/WBE total	0.85	53.69	1.59 ****
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)			
African American	0.00	0.00	
Hispanic	0.00	6.88	0.00
Asian/Pacific Islander	75.90	0.00	
Native American	0.00	0.00	
Minority	75.90	6.88	
Nonminority female	0.00	20.90	0.00 ****
M/WBE total	75.90	27.78	
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)			
African American	19.33	2.07	
Hispanic	1.66	22.50	7.37 ****
Asian/Pacific Islander	0.00	0.75	0.00
Native American	0.00	0.41	0.00
Minority	20.99	25.73	81.58
Nonminority female	3.39	16.02	21.17 ****
M/WBE total	24.38	41.75	58.40 ***
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)			
African American	0.00	0.00	
Hispanic	0.00	26.04	0.00 ****
Asian/Pacific Islander	43.28	7.02	
Native American	0.00	1.09	0.00 ***
Minority	43.28	34.14	
Nonminority female	2.09	15.82	13.25 ****
M/WBE total	45.37	49.96	90.82

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)			
African American	0.00	2.02	0.00 ****
Hispanic	0.14	19.99	0.69 ****
Asian/Pacific Islander	0.00	6.24	0.00 ****
Native American	0.00	2.60	0.00 ****
Minority	0.14	30.85	0.44 ****
Nonminority female	0.00	16.60	0.00 ****
M/WBE total	0.14	47.45	0.29 ****
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)			
African American	0.00	0.00	
Hispanic	0.00	5.46	0.00
Asian/Pacific Islander	0.00	18.81	0.00 **
Native American	0.00	0.00	
Minority	0.00	24.27	0.00 **
Nonminority female	0.00	15.67	0.00
M/WBE total	0.00	39.94	0.00 ****
Other Telecommunications (NAICS 5179)			
African American	0.00	0.00	
Hispanic	0.00	12.84	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.49	0.00
Minority	0.00	14.33	0.00
Nonminority female	0.00	11.34	0.00
M/WBE total	0.00	25.67	0.00 ****
Aerospace Product and Parts Manufacturing (NAICS 3364)			
African American	0.00	6.30	0.00
Hispanic	0.00	30.81	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	37.11	0.00 ****
Nonminority female	0.00	23.26	0.00 ****
M/WBE total	0.00	60.37	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)			
African American	0.00	0.00	
Hispanic	0.00	23.43	0.00 ****
Asian/Pacific Islander	0.00	0.23	0.00
Native American	0.00	0.05	0.00
Minority	0.00	23.72	0.00 ****
Nonminority female	8.48	14.90	56.90
M/WBE total	8.48	38.62	21.95 ****
Communications Equipment Manufacturing (NAICS 3342)			
African American	0.00	0.00	
Hispanic	0.00	9.26	0.00
Asian/Pacific Islander	0.00	8.83	0.00
Native American	0.00	0.00	
Minority	0.00	18.08	0.00 ****
Nonminority female	0.00	8.83	0.00
M/WBE total	0.00	26.91	0.00 ****
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)			
African American	0.00	0.00	
Hispanic	0.00	20.37	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	20.37	0.00 ****
Nonminority female	0.00	10.73	0.00 ****
M/WBE total	0.00	31.10	0.00 ****
Software Publishers (NAICS 5112)			
African American	0.00	0.00	
Hispanic	0.00	8.72	0.00 ****
Asian/Pacific Islander	0.00	7.16	0.00 ***
Native American	0.00	0.00	
Minority	0.00	15.89	0.00 ****
Nonminority female	0.00	4.69	0.00 ***
M/WBE total	0.00	20.57	0.00 ****
Office Supplies, Stationery, and Gift Stores (NAICS 4532)			
African American	0.00	0.00	
Hispanic	0.00	25.51	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	25.51	0.00 ****
Nonminority female	0.00	14.63	0.00 ***
M/WBE total	0.00	40.14	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Equipment Contractors (NAICS 2382)			
African American	0.00	1.75	0.00 ****
Hispanic	25.71	29.30	87.73
Asian/Pacific Islander	7.67	0.01	
Native American	0.00	1.59	0.00 ****
Minority	33.38	32.65	
Nonminority female	0.00	16.26	0.00 ****
M/WBE total	33.38	48.91	68.23 ***
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)			
African American	0.00	0.00	
Hispanic	17.38	30.09	57.74
Asian/Pacific Islander	0.00	0.76	0.00
Native American	0.00	0.76	0.00
Minority	17.38	31.62	54.95
Nonminority female	2.61	1.73	
M/WBE total	19.99	33.35	59.93
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)			
African American	0.00	0.00	
Hispanic	0.00	14.06	0.00 ****
Asian/Pacific Islander	0.00	4.99	0.00 **
Native American	0.00	0.00	
Minority	0.00	19.05	0.00 ****
Nonminority female	0.89	29.18	3.05 ****
M/WBE total	0.89	48.23	1.84 ****
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)			
African American	0.00	0.00	
Hispanic	83.97	34.87	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.67	0.00 *
Minority	83.97	36.54	
Nonminority female	3.46	13.72	25.26
M/WBE total	87.43	50.26	
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)			
African American	0.00	7.03	0.00 ****
Hispanic	0.00	7.72	0.00 ****
Asian/Pacific Islander	0.00	3.54	0.00
Native American	0.00	0.00	
Minority	0.00	18.29	0.00 ****
Nonminority female	1.71	4.66	36.58
M/WBE total	1.71	22.96	7.43 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Other General Purpose Machinery Manufacturing (NAICS 3339)			
African American	0.00	0.00	
Hispanic	0.00	6.34	0.00 ****
Asian/Pacific Islander	0.00	13.95	0.00 ****
Native American	0.00	0.00	
Minority	0.00	20.29	0.00 ****
Nonminority female	0.00	39.12	0.00 ****
M/WBE total	0.00	59.41	0.00 ****
Architectural, Engineering, and Related Services (NAICS 5413)			
African American	0.00	0.96	0.00 ****
Hispanic	0.00	15.94	0.00 ****
Asian/Pacific Islander	0.00	5.29	0.00 ****
Native American	0.00	4.12	0.00 ****
Minority	0.00	26.31	0.00 ****
Nonminority female	0.00	8.95	0.00 ****
M/WBE total	0.00	35.26	0.00 ****
Computer and Peripheral Equipment Manufacturing (NAICS 3341)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	5.13	0.00
Native American	0.00	0.00	
Minority	0.00	5.13	0.00
Nonminority female	0.00	21.44	0.00 **
M/WBE total	0.00	26.56	0.00 ****
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)			
African American	0.00	1.08	0.00
Hispanic	0.00	10.34	0.00 ****
Asian/Pacific Islander	0.00	2.29	0.00
Native American	0.00	0.00	
Minority	0.00	13.71	0.00 ****
Nonminority female	0.00	38.15	0.00 ****
M/WBE total	0.00	51.86	0.00 ****
Audio and Video Equipment Manufacturing (NAICS 3343)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	33.33	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	66.67	0.00 ****
Nonminority female	0.13	0.00	
M/WBE total	0.13	66.67	0.19 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)			
African American	0.00	0.00	
Hispanic	0.00	15.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	15.00	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	15.00	0.00 ****
Petroleum and Coal Products Manufacturing (NAICS 3241)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Management, Scientific, and Technical Consulting Services (NAICS 5416)			
African American	0.00	2.53	0.00 ****
Hispanic	0.00	3.67	0.00 ****
Asian/Pacific Islander	0.00	0.39	0.00 **
Native American	0.00	0.59	0.00 **
Minority	0.00	7.18	0.00 ****
Nonminority female	0.00	3.74	0.00 ****
M/WBE total	0.00	10.93	0.00 ****
Other Miscellaneous Manufacturing (NAICS 3399)			
African American	0.00	2.12	0.00 *
Hispanic	7.18	37.43	19.19 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	1.31	0.00 *
Minority	7.18	40.86	17.58 ****
Nonminority female	0.00	10.68	0.00 ****
M/WBE total	7.18	51.54	13.94 ****
Automotive Repair and Maintenance (NAICS 8111)			
African American	0.00	3.34	0.00
Hispanic	0.00	42.49	0.00 ****
Asian/Pacific Islander	0.00	3.05	0.00
Native American	0.00	2.60	0.00
Minority	0.00	51.48	0.00 ****
Nonminority female	0.00	10.96	0.00 ****
M/WBE total	0.00	62.45	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Nonresidential Building Construction (NAICS 2362)			
African American	0.00	2.11	0.00 ****
Hispanic	0.00	26.42	0.00 ****
Asian/Pacific Islander	0.00	2.11	0.00 ****
Native American	0.00	0.42	0.00 *
Minority	0.00	31.07	0.00 ****
Nonminority female	19.03	8.69	
M/WBE total	19.03	39.76	47.86
Motor Vehicle Manufacturing (NAICS 3361)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Building Material and Supplies Dealers (NAICS 4441)			
African American	0.00	0.00	
Hispanic	0.00	17.57	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	17.57	0.00 ****
Nonminority female	0.00	18.25	0.00 ****
M/WBE total	0.00	35.82	0.00 ****
Other Professional, Scientific, and Technical Services (NAICS 5419)			
African American	0.00	0.34	0.00
Hispanic	0.00	6.87	0.00 ****
Asian/Pacific Islander	0.00	0.04	0.00
Native American	0.00	2.31	0.00 *
Minority	0.00	9.56	0.00 ****
Nonminority female	0.00	18.06	0.00 ****
M/WBE total	0.00	27.62	0.00 ****
Paper and Paper Product Merchant Wholesalers (NAICS 4241)			
African American	0.00	5.00	0.00
Hispanic	7.24	14.00	51.74
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	7.24	19.00	38.13
Nonminority female	0.00	14.00	0.00
M/WBE total	7.24	33.00	21.95 ***

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Plastics Product Manufacturing (NAICS 3261)			
African American	0.00	0.00	
Hispanic	0.00	29.63	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	29.63	0.00 ****
Nonminority female	0.00	7.41	0.00 ****
M/WBE total	0.00	37.04	0.00 ****
Electronic Shopping and Mail-Order Houses (NAICS 4541)			
African American	0.00	0.00	
Hispanic	0.00	10.90	0.00 ***
Asian/Pacific Islander	0.00	3.39	0.00
Native American	0.00	0.00	
Minority	0.00	14.29	0.00 ***
Nonminority female	0.00	38.74	0.00 ****
M/WBE total	0.00	53.03	0.00 ****
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	100.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)			
African American	0.00	0.38	0.00
Hispanic	0.00	35.44	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	35.81	0.00 ****
Nonminority female	0.00	1.51	0.00
M/WBE total	0.00	37.32	0.00 ****
Other Motor Vehicle Dealers (NAICS 4412)			
African American	0.00	4.50	0.00
Hispanic	0.00	23.11	0.00 ****
Asian/Pacific Islander	0.00	4.50	0.00
Native American	0.00	0.00	
Minority	0.00	32.11	0.00 ****
Nonminority female	0.00	4.50	0.00
M/WBE total	0.00	36.61	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Remediation and Other Waste Management Services (NAICS 5629)			
African American	0.00	11.52	0.00 ****
Hispanic	87.64	6.06	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	87.64	17.58	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	87.64	37.58	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (NAICS 3327)			
African American	0.00	0.00	
Hispanic	100.00	39.17	
Asian/Pacific Islander	0.00	5.00	0.00
Native American	0.00	0.00	
Minority	100.00	44.17	
Nonminority female	0.00	5.00	0.00
M/WBE total	100.00	49.17	
Automotive Equipment Rental and Leasing (NAICS 5321)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	2.57	0.00
M/WBE total	0.00	2.57	0.00
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)			
African American	0.00	0.00	
Hispanic	0.00	29.97	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	29.97	0.00 ****
Nonminority female	7.64	19.74	38.70
M/WBE total	7.64	49.71	15.37 ****
Motor Vehicle Parts Manufacturing (NAICS 3363)			
African American	0.00	0.00	
Hispanic	0.00	10.00	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	10.00	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	10.00	0.00

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)			
African American	0.00	0.00	
Hispanic	0.00	23.45	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	23.45	0.00 ****
Nonminority female	0.00	9.17	0.00 ****
M/WBE total	0.00	32.62	0.00 ****
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)			
African American	0.00	0.00	
Hispanic	0.00	3.10	0.00
Asian/Pacific Islander	0.00	6.43	0.00
Native American	0.00	0.00	
Minority	0.00	9.53	0.00
Nonminority female	0.00	47.45	0.00 ****
M/WBE total	0.00	56.98	0.00 ****
Pharmaceutical and Medicine Manufacturing (NAICS 3254)			
African American	0.00	4.00	0.00
Hispanic	0.00	28.00	0.00 ****
Asian/Pacific Islander	0.00	8.00	0.00 ****
Native American	0.00	20.00	0.00 ****
Minority	0.00	60.00	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	60.00	0.00 ****
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)			
African American	0.00	0.00	
Hispanic	0.00	29.96	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	29.96	0.00 ****
Nonminority female	0.00	29.96	0.00 ****
M/WBE total	0.00	59.91	0.00 ****
Other Electrical Equipment and Component Manufacturing (NAICS 3359)			
African American	0.00	0.00	
Hispanic	0.00	10.02	0.00 ****
Asian/Pacific Islander	0.00	6.99	0.00
Native American	0.00	0.00	
Minority	0.00	17.02	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	17.02	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)			
African American	0.00	0.00	
Hispanic	0.00	11.76	0.00
Asian/Pacific Islander	0.00	5.88	0.00
Native American	0.00	0.00	
Minority	0.00	17.65	0.00 ****
Nonminority female	0.00	17.65	0.00 ****
M/WBE total	0.00	35.29	0.00 ****
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)			
African American	0.00	2.86	0.00
Hispanic	0.00	30.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	32.86	0.00 ****
Nonminority female	0.00	11.43	0.00
M/WBE total	0.00	44.29	0.00 ****
Services to Buildings and Dwellings (NAICS 5617)			
African American	0.00	0.41	0.00
Hispanic	15.20	48.15	31.56 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	15.20	48.56	31.29 ****
Nonminority female	0.00	9.52	0.00 ****
M/WBE total	15.20	58.08	26.16 ****
Electric Lighting Equipment Manufacturing (NAICS 3351)			
African American	0.00	0.00	
Hispanic	0.00	16.67	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	16.67	0.00 ****
Nonminority female	0.00	16.67	0.00 ****
M/WBE total	0.00	33.33	0.00 ****
Other Chemical Product and Preparation Manufacturing (NAICS 3259)			
African American	0.00	0.00	
Hispanic	0.00	14.29	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	14.29	0.00
Nonminority female	0.00	28.57	0.00 ****
M/WBE total	0.00	42.86	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Advertising, Public Relations, and Related Services (NAICS 5418)			
African American	0.00	0.00	
Hispanic	0.00	52.91	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	52.91	0.00 ****
Nonminority female	0.00	19.55	0.00 ****
M/WBE total	0.00	72.46	0.00 ****
Medical Equipment and Supplies Manufacturing (NAICS 3391)			
African American	0.00	0.00	
Hispanic	0.00	6.25	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.25	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	6.25	0.00
Investigation and Security Services (NAICS 5616)			
African American	0.00	3.23	0.00 **
Hispanic	59.19	22.56	
Asian/Pacific Islander	0.00	5.29	0.00 **
Native American	0.00	1.04	0.00
Minority	59.19	32.11	
Nonminority female	0.00	12.99	0.00 ****
M/WBE total	59.19	45.11	
Drycleaning and Laundry Services (NAICS 8123)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	20.00	0.00 ****
M/WBE total	0.00	20.00	0.00 ****
Motion Picture and Video Industries (NAICS 5121)			
African American	0.00	11.63	0.00
Hispanic	0.00	30.23	0.00 ****
Asian/Pacific Islander	0.00	5.81	0.00
Native American	0.00	0.00	
Minority	0.00	47.67	0.00 ****
Nonminority female	0.00	0.00	
M/WBE total	0.00	47.67	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)			
African American	0.00	0.00	
Hispanic	0.00	6.67	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	6.67	0.00
Nonminority female	0.00	6.67	0.00
M/WBE total	0.00	13.33	0.00
Support Activities for Animal Production (NAICS 1152)			
African American	0.00	0.00	
Hispanic	0.00	13.78	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	13.78	0.00
Nonminority female	0.00	38.70	0.00 ****
M/WBE total	0.00	52.48	0.00 ****
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)			
African American	0.00	0.00	
Hispanic	0.00	11.11	0.00
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	11.11	0.00
Nonminority female	0.00	0.00	
M/WBE total	0.00	11.11	0.00
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)			
African American	0.00	3.51	0.00 *
Hispanic	0.00	13.42	0.00 ****
Asian/Pacific Islander	0.00	1.45	0.00
Native American	0.00	0.00	
Minority	0.00	18.38	0.00 ****
Nonminority female	0.00	15.71	0.00 ****
M/WBE total	0.00	34.10	0.00 ****
Steel Product Manufacturing from Purchased Steel (NAICS 3312)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	25.00	0.00 ****
Native American	0.00	0.00	
Minority	0.00	25.00	0.00 ****
Nonminority female	0.00	25.00	0.00 ****
M/WBE total	0.00	50.00	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Book Stores and News Dealers (NAICS 4512)			
African American	0.00	0.00	
Hispanic	0.00	13.82	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	4.61	0.00
Minority	0.00	18.43	0.00 ****
Nonminority female	0.00	35.98	0.00 ****
M/WBE total	0.00	54.41	0.00 ****
Accounting, Tax Preparation, Bookkeeping, and Payroll Services (NAICS 5412)			
African American	0.00	0.00	
Hispanic	0.00	10.31	0.00 ****
Asian/Pacific Islander	0.00	1.67	0.00
Native American	0.00	0.00	
Minority	0.00	11.98	0.00 ****
Nonminority female	0.00	31.10	0.00 ****
M/WBE total	0.00	43.08	0.00 ****
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (NAICS 3253)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	
Individual and Family Services (NAICS 6241)			
African American	0.00	5.45	0.00 ****
Hispanic	0.00	36.44	0.00 ****
Asian/Pacific Islander	0.00	0.10	0.00
Native American	0.00	0.00	
Minority	0.00	41.99	0.00 ****
Nonminority female	0.00	12.29	0.00 ****
M/WBE total	0.00	54.28	0.00 ****
Printing and Related Support Activities (NAICS 3231)			
African American	0.00	1.88	0.00
Hispanic	0.00	27.75	0.00 ****
Asian/Pacific Islander	0.00	2.36	0.00
Native American	0.00	0.00	
Minority	0.00	31.98	0.00 ****
Nonminority female	0.00	12.35	0.00 ****
M/WBE total	0.00	44.34	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Building Finishing Contractors (NAICS 2383)			
African American	0.00	1.27	0.00 ****
Hispanic	0.00	44.53	0.00 ****
Asian/Pacific Islander	0.00	6.18	0.00 ****
Native American	0.00	4.91	0.00 ****
Minority	0.00	56.89	0.00 ****
Nonminority female	0.00	13.63	0.00 ****
M/WBE total	0.00	70.51	0.00 ****
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)			
African American	0.00	33.33	0.00 ****
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	33.33	0.00 ****
Nonminority female	0.00	33.33	0.00 ****
M/WBE total	0.00	66.67	0.00 ****
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	68.89	0.00	
M/WBE total	68.89	0.00	
Utility System Construction (NAICS 2371)			
African American	0.00	0.00	
Hispanic	0.00	19.41	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	19.41	0.00 ****
Nonminority female	0.00	5.88	0.00 ****
M/WBE total	0.00	25.29	0.00 ****
Waste Collection (NAICS 5621)			
African American	0.00	0.00	
Hispanic	0.00	50.00	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	50.00	0.00 ****
Nonminority female	0.00	50.00	0.00 ****
M/WBE total	0.00	100.00	0.00 ****

NAICS Industry Group & M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Specialized Freight Trucking (NAICS 4842)			
African American	0.00	2.22	0.00 ***
Hispanic	6.50	17.78	36.54
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	6.50	20.00	32.48 **
Nonminority female	0.00	25.56	0.00 ****
M/WBE total	6.50	45.56	14.26 ****
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)			
African American	0.00	4.57	0.00 ****
Hispanic	0.00	38.24	0.00 ****
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	42.80	0.00 ****
Nonminority female	0.00	11.54	0.00 ****
M/WBE total	0.00	54.34	0.00 ****
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)			
African American	0.00	0.00	
Hispanic	0.00	38.95	0.00 ****
Asian/Pacific Islander	0.00	4.05	0.00 ****
Native American	0.00	0.00	
Minority	0.00	43.00	0.00 ****
Nonminority female	0.00	7.82	0.00 ****
M/WBE total	0.00	50.81	0.00 ****
Semiconductor and Other Electronic Component Manufacturing (NAICS 3344)			
African American	0.00	0.00	
Hispanic	0.00	0.00	
Asian/Pacific Islander	0.00	0.00	
Native American	0.00	0.00	
Minority	0.00	0.00	
Nonminority female	0.00	0.00	
M/WBE total	0.00	0.00	

Source and Notes: *See* Table 6.4.

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