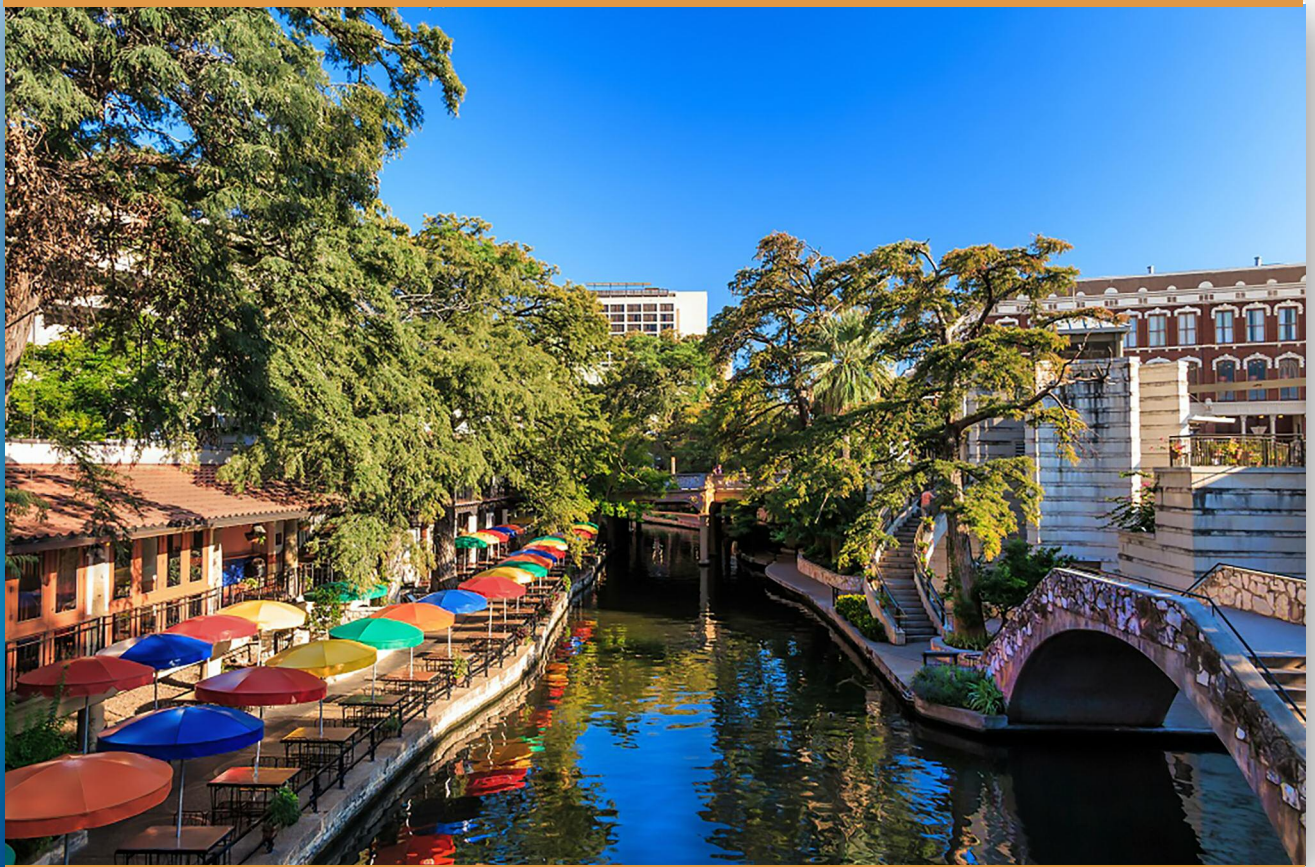


San Antonio Water System Minority- and Woman-Owned Business Enterprise Disparity Study 2021



**SAN ANTONIO WATER SYSTEM
MINORITY- AND WOMAN-OWNED
BUSINESS ENTERPRISE
DISPARITY STUDY**

2021

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About the Study Team

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

Auxiliary Marketing Services (“AMS”) specializes in public involvement, public relations, and marketing communications services. President Gretchen Roufs has extensive knowledge of the San Antonio area business communities. and substantial experience in community outreach. The firm is certified by many agencies. AMS will assist CHA with community outreach and anecdotal data collection.

Mentor Documents and Consulting (“Mentor”) focuses on data analytics, quality control/quality assurance, and data validation. President Denise Ontiveros has 20 years of experience in data collection, analytics, systems and procedures. Mentor is certified by many agencies. Mentor will assist CHA with contract data collection follow-up and research.

Acknowledgments

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I. EXECUTIVE SUMMARY

Colette Holt & Associates (“CHA”) was retained by the San Antonio Water System (“SAWS”) to perform a disparity study examining its Small, Minority, Woman, and Veteran-owned Business (“SMWVB”) Program for Minority- and Woman-Owned Business Enterprises (“M/WBEs”). In this Study, we determined SAWS’ utilization of M/WBEs during fiscal years 2017 through 2019; the availability of these firms as a percentage of all firms in the SAWS’ geographic and industry market areas; and any disparities between SAWS’ utilization of M/WBEs and M/WBE availability. We further analyzed disparities in the wider San Antonio Metropolitan Area and the Texas economy, where economic affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We also gathered qualitative data about the experiences of minority- and woman-owned firms in obtaining SAWS’ contracts and the associated subcontracts. Based on these findings, we evaluated SAWS’ programs for conformance with constitutional standards, national best practices, and M/WBE program regulations.

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

A. Summary of Strict Constitutional Standards Applicable to SAWS’ SMWVB Program

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

Strict scrutiny analysis has two prongs:

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

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

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

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

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

Most federal courts, including the Fifth Circuit, have subjected preferences for Woman-Owned Business Enterprises ("WBEs") to "intermediate scrutiny". Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related to the objective".² The quantum of evidence necessary to satisfy intermediate scrutiny is less than that required to satisfy strict scrutiny. However, appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program or held that the results would be the same under strict scrutiny.

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

1. *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989).
2. *Cf. United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).

the elements of the agency's program to determine whether it is sufficiently narrowly tailored.

B. SAWS' SMWVB Program

As a public utility owned by the City of San Antonio, SAWS³ implements the SMWVB Program for minority and woman enterprises to redress discrimination in its marketplace. The Program encourages full participation in all phases of SAWS' procurement activities and strives to afford a full and fair opportunity to all vendors to compete for SAWS contracts.

Based on data from a disparity study conducted in 2015, SAWS established its SMWVB Policy ("Policy"). The Policy seeks to: (1) ensure that SAWS is not a passive participant in a discriminatory marketplace; (2) ensure that the program is narrowly tailored; (3) provide opportunities for SMWVBs to broaden and enhance their capacities to do business with SAWS; and (4) administer the program in a manner consistent with applicable federal and state law.

1. Eligibility for the SMWVB Program

Only business enterprises that are certified as Small Business Enterprises ("SBEs") may participate in the Program. The SBE requirement applies to Minority-owned Business Enterprises ("MBEs"), Woman-owned Business Enterprises ("WBEs") and as Historically Underutilized Business ("HUBs") certified by the State of Texas. Firms meeting the United States Small Business Administration size standards for a small business within the appropriate industry category qualify for SBE certification. Only business enterprises with a Significant Local Business Presence in the San Antonio Metropolitan Statistical Area⁴ may participate in the SMWVB Program for Construction, Engineering, and Professional Services. There is not a local requirement for procurement solicitations, based upon the results of the 2015 Disparity Study. Certifications are conducted by the South Central Texas Regional Certification Agency ("SCTRCA") or by another entity designated by SAWS.

3. SAWS was established pursuant to Article 1115, Texas Revised Statutes Annotated, and City of Antonio Ordinance No. 75686.

4. SAMSA is defined as the counties of Atascosa, Bandera, Bexar, Comal, Frio, Guadalupe, Kendall, Kerr, McMullen, Medina, Uvalde, and Wilson.

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

As part of the Policy, SAWS uses race- and gender-neutral measures to facilitate the participation of all small businesses in SAWS contracting activities. These measures include:

- Requiring SMWBs to have SBE certification;
- Arranging solicitation times for the presentation of solicitations to facilitate the participation of interested contractors and subcontractors;
- Segmenting contracts to facilitate the participation of business enterprises;
- Providing timely information programs on contracting procedures, solicitation preparation, and specific contracting opportunities;
- Holding pre-bid and pre-proposal conferences, where appropriate, to explain projects and encourage other contractors to use all available business enterprises as subcontractors;
- Adopting prompt payment procedures, including requiring by contract that prime contractors pay subcontractors (or subconsultants) within ten days of receipt of payment from SAWS;
- Collecting information for expenditures to subcontractors (or subconsultants) utilized by prime contractors (or consultants) on SAWS contracts;
- Maintaining a continuous process for information flow between contractors and consultants and SAWS;
- Reviewing bonding and insurance requirements to eliminate unnecessary barriers to contracting with SAWS;
- Referring complaints of discrimination to the appropriate state or federal agency for investigation and resolution or taking other action as appropriate; and
- Providing outreach lists of SMWB-certified firms to potential respondents. The lists are from the South Central Texas Regional Certification Agency database, and are filtered for SBE certification, scope of work, and locality.

3. SAWS' SMWVB Goal Setting Policies and Procedures

SAWS has adopted the following annual aspirational goals for M/WBE prime and subcontractor or subconsultant participation in SAWS contracts:

- Construction: 20%
- Engineering: 40%
- Professional Services: 40%
- Procurement (Commodities and General Services): 19%

Although SAWS tracks Veteran-owned Business Enterprise ("VBE") participation for statistical purposes, it does not set goals or award points for VBE participation.

4. Program Administration

The SAWS SMWVB Program Office is primarily responsible for general oversight and administration of the Program. The Program Manager is responsible for oversight, monitoring, administration, implementation, and reporting of the Program. The Program Manager reports directly to the Contracting Director and is the SAWS representative on the SCTRCA Board.

SAWS' Contracting and Purchasing Departments have the primary responsibility for ensuring that Program contract specifications are included in all appropriate solicitation documents. These departments are also responsible for communicating to the Program Manager any change orders and contract amendments that affect M/WBE participation on contracts. SAWS maintains a vendor list with the assistance of these departments.

a. Pre-Award Procedures, Utilization Plan Review and Good Faith Effort Determinations

A respondent to a SAWS solicitation for which an aspirational SMWB goal has been established must demonstrate its intent to comply with the Program by submitting a Good Faith Effort ("GFE") Plan that either commits to achieve the goal or documents its GFEs to do so. The Plan is due at the time set forth in the solicitation. Upon request, SAWS provides lists to the potential respondents that establish the minimum universe from which a respondent may solicit certified firms.

Self-performance and subcontracting may be used to achieve aspirational goals and earn points on discretionary⁵ contract solicitations. Compliance with Program bid or proposal specifications is material in determining whether a bid or proposal is responsive.

SAWS uses point systems to score M/WBE and SBE participation in discretionary type contracts, such as professional services/engineering solicitations, alternative delivery solicitations for construction contracts, and other discretionary procurement solicitations. A maximum of 15 points is available for SBE or M/WBE utilization to meet the goal on professional services solicitations. Five (out of a possible 15) points are available on Environmental Protection Agency Consent Decree projects to a firm that uses certified subconsultant firms who have never done business with SAWS previously and will perform at least 10% of sewer design services work. Standard SMWB specifications may also be modified at the discretion of the Program Manager for solicitations that have little or no SMWB availability.

On alternative delivery method solicitations for construction contracts, the Program Manager has discretion to award up to 10% of the total weighted selection criteria points for SMWB participation detailed in the Good Faith Effort Plan. Respondents may earn up to 10 points for SBE or M/WBE participation meeting or exceeding the aspirational annual 20% goal.

Certified firms are required to be competitive with non-certified firms on price, quality, and delivery. Respondents need not accept higher quotes in order to meet goals.

The Program Manager is responsible for determining whether the respondent has made GFEs. SAWS considers the respondent's efforts to solicit M/WBEs and provide interested M/WBEs with adequate information about the plans, specifications, and requirements of the contract. Bidders must negotiate in good faith with interested M/WBEs. As part of the GFE determination, SAWS will consider the performance of other respondents in meeting the contract goal.

The Program Manager must review the GFE Plan within a reasonable time in order to avoid unduly delaying award of the contract.

b. Counting M/WBE and SBE Participation

The amount or portion of a contract performed by a certified firm, including the cost of supplies and materials, will be counted towards the contract goal(s). Any fees or commissions charged by M/WBEs or SBEs for providing a service such as insurance or bonds will be counted. However, supplies and equipment purchased from the prime contractor or affiliate are excluded. Contractors with multiple certifications are counted only once toward a particular goal.

5. Discretionary solicitations would be non-low bid solicitations, such as requests for qualifications or proposals, or other solicitations for which price is not the determining factor.

c. Commercially Useful Function Reviews

To be counted towards meeting a contract goal, the certified firm must perform a commercially useful function (“CUF”). A firm performs a CUF when it is responsible for the execution of the work of the contract and for carrying out its responsibilities by actually performing, staffing, managing and supervising the work involved. SAWS will evaluate the amount of work sub-contracted; normal industry practices; whether the amount the firm is to be paid under the contract is commensurate with the work it is performing; the SMWVB credit claimed for the performance of the work; and other relevant factors.

d. Post Award Contract Administration and Compliance Procedures

Contract monitoring is an important component of the SMWVB Program. Since 2011, SAWS has implemented the Subcontractor Payment and Utilization Reporting System, also known as the S.P.U.R. System, which is the B2Gnow software for subcontractor payment and utilization reporting to track payments to both primes and subcontractors. The S.P.U.R. System also provides automated email communications with contractors about compliance issues; submission of contractor utilization reports online with automated tracking of contract goals and participation; and automatic verification of subcontractor payments. All contractors are required to report electronically actual payments to all subcontractors on the schedule and in the format prescribed by SAWS. The System verifies subcontractor payments and tracks SMWVB participation and utilization against contract goals.

All requests for changes and substitutions of subcontractors listed in the GFE Plan are made to the Program Manager in writing or through the S.P.U.R. System and must clearly set forth the basis for the request. The contractor may not substitute a subcontractor or perform the work designated for a subcontractor in the GFE Plan with its own forces unless and until the Program Manager approves the substitution in writing.

Prior to contract expiration or closeout, the Program Manager evaluates the contractor’s fulfillment of the goal(s), considering all approved substitutions, terminations and changes to the contract’s scope of work. Since goals are aspirational, waivers are not required if a respondent is below the goal.

e. Outreach, Business Development and Training

SAWS provides an outreach calendar on its website. Scheduled events include workshops, seminars, lectures, and other functions promoting the SMWVB Program. The website provides a link to the SPUR System, out-

reach, SMWVB Policy and presentations, an online tutorial about doing business with the Purchasing Department, and links to certifying agencies and relevant resources.

Information that firms can use to increase their information about doing business with SAWS include viewing the winning vendor for a specific solicitation.⁶ Live training is available for the SPUR System for online certification applications and contract compliance. Additionally, the Contracting Department offers a Solicitation Submittal Tip list, and the Purchasing Department offers a guide for suppliers which is available for downloading. Staff have attended B2Gnow conferences as well as other local class opportunities through the Small Business Development Center and SCORE.

Outreach is an important focus to encourage M/WBE participation. In 2017 and 2018, SAWS sponsored or participated in more than 35 events to foster visibility of M/WBEs and provide information concerning how to do business with SAWS. In 2020, SAWS offered more outreach than any other year. Events include networking sessions, luncheons, informational meetings, conference presentations, lectures, workshops, and pre-bid conferences.

An important outreach component involved leveraging the services of M/WBE-oriented community organizations, contractor groups, and local, state, and federal M/WBE business assistance offices. These organizations include the San Antonio Hispanic Chamber of Commerce and the Maestro Entrepreneur Center. Specific focus has been on the Black community. These efforts encompass quarterly meetings with the NAACP and the Black Contractors Association to identify initiatives to increase access to government contracting. SAWS also coordinates outreach to the community through these two organizations.

5. Experiences with SAWS' SMWVB Program

To explore the experiences of businesses seeking opportunities on SAWS contracts, we solicited input from 80 individuals and sought their suggestions for changes. We also collected written comments from 147 businesses about their experiences with the Program through an electronic survey. The following are summaries of the issues discussed during the interviews and in the survey comments.

6. See https://apps.saws.org/Business_Center/Contractsol/archive.cfm for contracting bids and https://apps.saws.org/Business_Center/procbids/Archive.cfm for purchasing bids.

a. Business Owner Interviews

Many business owners praised SAWS program. Many interviewees praised SAWS as a good agency for which to work. Overall, M/WBEs believed that the program works well. There was near universal agreement that SAWS pays promptly. Further, there was support among many large firms for the overall objectives of the program. While sometimes a challenge, most prime contractors were able to meet contract goals. Bidders or proposers who had been unable to meet the goal generally reported that SAWS was reasonable in considering their good faith efforts to do so.

However, interview participants raised several issues. These included access to information about contracting opportunities; large or overly restrictive contract requirements that favor large, national firms, including insurance coverage limits, decreased opportunities to obtain prime contracts; difficulties with meeting the 40% goal on consulting and professional services contracts; and burdening prime consultants with additional oversight of their M/WBEs.

b. Business Owner Survey Comments

Written statements about experiences with the SMWVB Program from the 147 businesses that responded to the anecdotal survey were consistent with those obtained in the interviews. Many expressed support for the program and indicated the program was critical to obtaining business. M/WBEs reported good experiences with SAWS' program and complemented SAWS staff.

However, some respondents noted there are limits to the program's efficacy and a few M/WBEs stated that the program had not yet provided much benefit. As with the interview results, some M/WBEs reported they did not have equal access to SAWS contracts, and the perception of several respondents was that larger, non-minority firms are favored. Contract size was reported to be an impediment.

Unbundling projects, increased program oversight to ensure compliance, assistance with bonding, financing and insurance, and partnering and access to a mentor-protégé program were welcomed as important approaches to increase opportunities.

C. Utilization, Availability and Disparity Analyses of SAWS' Contracts

This Study examined SAWS' contract dollars for projects for the fiscal years 2017 through 2019. The Final Contract Data File ("FCDF") contained 681 prime contracts and 962 subcontracts. The net dollar value of contracts to primes and subcontractors was \$784,672,709.

The following tables present key results of the data analysis:

Table 1-1 presents data on the NAICS codes contained in the FCDF that captured at least 1% of the agency's spending. Data on the total 146 NAICS codes in which SAWS spent dollars are provided in Chapter IV.. The third column represents the share of all contracts to firms performing work in a particular NAICS code. The fourth column presents the cumulative share of SAWS' spending from the NAICS code with the largest share to the NAICS code with the smallest share.

Table 1-1: Industry Percentage Distribution of SAWS Contracts that Received at Least 1 % of Dollars

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237110	Water and Sewer Line and Related Structures Construction	57.7%	57.7%
541330	Engineering Services	7.7%	65.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.3%	69.8%
237310	Highway, Street, and Bridge Construction	3.1%	72.9%
238910	Site Preparation Contractors	1.6%	74.5%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	1.3%	75.8%
237990	Other Heavy and Civil Engineering Construction	1.3%	77.1%
541512	Computer Systems Design Services	1.2%	78.3%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	1.2%	79.5%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423840	Industrial Supplies Merchant Wholesalers	1.1%	80.7%
541990	All Other Professional, Scientific, and Technical Services	1.1%	81.7%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	82.8%

Source: CHA analysis of SAWS data

To determine the relevant geographic market area, we applied the standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the contract data file.⁷ Location was determined by ZIP code and aggregated into counties as the geographic unit. The contracts SAWS awarded to firms located in the State of Texas accounted for 88.9% of all dollars during the study period. Six counties within the state - Bexar, Comal, and Guadalupe Counties in the San Antonio Metropolitan Area and Travis, Hays, and Williamson Counties in the Austin Metropolitan Area captured 80.3% of the state dollars and 75.6% of the entire FCDF. These six counties were determined to be the geographic market for SAWS, and we limited our analysis to firms in these counties.

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

Table 1-2 presents the distribution of contract dollars. Chapter IV provides detailed breakdowns of these results.

Table 1-2: Distribution of SAWS Contract Dollars by Race and Gender (share of total dollars)

NAICS	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
Total	0.4%	27.2%	2.0%	0.0%	29.6%	5.3%	34.8%	65.2%	100.0%

Source: CHA analysis of SAWS data

7. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program* at p. 29. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>. ("National Disparity Study Guidelines").
8. For our analysis, the term "M/WBE" includes firms that are certified by government agencies and minority- and woman-owned firms that are not certified. As discussed in Chapter II, the inclusion of all minority- and female-owned businesses in the pool casts the broad net approved by the courts and recommended by USDOT that supports the remedial nature of the programs. See *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 723 (7th Cir. 2007) (The "remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net.").

Using the modified “custom census” approach to estimating availability and the further assignment of race and gender using the FCDF, the Master M/WBE Directory and other sources, we determined the unweighted availability of M/WBE’s in SAWS’ market area. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.⁹

Table 1-3: Aggregated Unweighted M/WBE Availability for SAWS Contracts

Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
1.0%	2.5%	0.7%	0.1%	4.3%	4.8%	9.1%	90.9%	100.0%

Source: CHA analysis of SAWS data

We next determined the aggregated availability of M/WBEs, weighted by SAWS’ spending in its geographic and industry markets. Table 1-4 presents these results for all product sectors combined for the racial and gender categories. The overall, weighted M/WBE availability results can be used by SAWS to determine its overall, aspirational goal.

Table 1-4: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
1.0%	9.3%	1.1%	0.2%	11.7%	8.7%	20.4%	79.6%	100.0%

Source: CHA analysis of SAWS data; Hoovers; CHA Master Directory

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

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

$$DR = U/WA$$

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

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

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

result may be caused by the disparate impacts of discrimination.¹⁰ Second, statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone.¹¹ A more in-depth discussion of statistical significance is provided in Chapter IV and Appendix C.

Table 1-5 presents the calculated disparity ratios for each demographic group. The disparity ratios for three groups – Blacks, Native Americans, and White Women – are substantively significant. The disparity ratios for four groups – Hispanics, MBEs, M/WBEs, and non-M/WBEs – are statistically significant at the 0.005 level.

Table 1-5: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE
Disparity Ratio	40.3%‡	291.5%***	174.2%	7.2%‡	253.7%***	60.7%‡	171.0%***	81.8%***

Source: CHA analysis of SAWS data
 *** Indicates statistical significance at the 0.001 level
 ‡ Indicates substantive significance

In summary, we found substantively significant negative disparities for Blacks, Native Americans, and White Women. In addition, our examination of SAWS’ utilization data revealed that its spending with M/WBEs was more concentrated among a few firms than its spending with non-M/WBEs. This indicates that what success M/WBE groups achieved in getting SAWS contracts was limited to a few firms and not dispersed as widely as among non-M/WBE firms.

D. Analysis of Disparities in the San Antonio Metropolitan Area Economy

Evidence of the experiences of minority- and woman-owned firms outside the SMWVB program is relevant and probative of the likely results of SAWS adopting a race-neutral program, because contracting diversity programs are rarely imposed outside of specific government agencies. To examine the outcomes throughout the San Antonio Metropolitan Area Economy, we explored two Census Bureau

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10. See U.S. Equal Employment Opportunity Commission regulation, 29 C.F.R. §1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).
 11. A chi-square test – examining if the utilization rate was different from the weighted availability – was used to determine the statistical significance of the disparity ratio.

datasets and the government and academic literature relevant to how discrimination in SAWS' industry market and throughout the wider San Antonio economy affects the ability of minorities and women to fairly and fully engage in SAWS' prime contract and subcontract opportunities.

We analyzed the following data and literature:

- San Antonio Metropolitan Area data from the Census Bureau's *American Community Survey* from 2015 through 2019. This rich data set establishes with greater certainty any causal links between race, gender and economic outcomes. We employed a multiple regression statistical technique to examine the rates at which minorities and women form firms. In general, we found that even after considering potential mitigating factors, business formation rates by Blacks, Hispanics and White women are lower compared to White males. The data indicate that Blacks, Hispanics and White Women receive lower wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect non-Whites and White women entrepreneurs.
- Industry Data from the Census Bureau's 2017 Annual Business Survey from 2017. This dataset indicated large disparities between M/WBE firms and non-M/WBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), and the payroll of employer firms.
- Surveys and literature on barriers to access to commercial credit and the development of human capital further reports that minorities continue to face constraints on their entrepreneurial success based on race. These constraints negatively impact the ability of firms to form, to grow, and to succeed. These results support the conclusions drawn from the anecdotal interviews and analysis of SAWS' contract data that M/WBEs face obstacles to achieving success on contracts outside of M/WBE programs.

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

E. Qualitative Evidence of Race and Gender Barriers in SAWS' Market Area

In addition to quantitative data, anecdotal evidence of firms' marketplace experiences is relevant to evaluating whether the effects of current or past discrimina-

tion continue to impede opportunities for M/WBE firms such that race-conscious contract goals are needed to ensure equal opportunities to compete for contracts. To explore this type of anecdotal evidence, we received input from 80 participants in small group business owner interviews. We also received 147 responses to an electronic anecdotal survey and written comments during the study period.

1. Business Owner Interviews

Many minority and woman owners reported that they continue to experience negative assumptions and perceptions about their competency and capabilities. Some minority consultants had experienced overt racism in the overall market. Some women had also labored under sexist behaviors and attitudes. Both minorities and women reported that it can be difficult to break into entrenched networks. There was near unanimous agreement that M/WBE contract goals remain critical to ensuring that minority and woman firms get work.

Race- and gender-based measures were especially helpful for newer businesses.

2. Anecdotal Survey

Results from the anecdotal survey were similar to those of the interviews. About a third (36.1%) of M/WBEs still experience barriers to equal contracting opportunities. A little less than a quarter (24.5%) have their competency questioned because of their race or gender. Almost a fifth (18.4%) experience job-related sexual or racial harassment.

Responses to the survey's open-ended questions expressed these experiences in further detail. The responses included obstacles in the overall market. Overall, minority and woman firms continue to experience race and gender discrimination. They reported negative attitudes concerning competency, skill, and qualifications that reduced their ability to obtain contracts. Many women reported overt and covert stereotyping and sexism that impeded their ability both to obtain contracts and to demonstrate their capabilities on current contracts; being a woman in a male dominated industry was frequently cited as an everyday burden. Many minority and woman firms reported entrenched relationships and "good 'ole boy" networks that impeded access to contract opportunities. Some M/WBEs commented on pressure to reduce their pricing relative to non-M/WBE firms. Many reported they did not have access to information that would help them to compete on an equal basis. Finally, lack of access to capital and financial support services, particularly insurance, was cited as a major impediment in taking on more work and the ability of M/WBE firms to successfully compete.

II. LEGAL STANDARDS FOR SAN ANTONIO WATER SYSTEM'S MINORITY- AND WOMAN-OWNED BUSINESS ENTERPRISE PROGRAM

A. Summary of Constitutional Equal Protection Standards

To be effective, enforceable, and legally defensible, a race-based affirmative action program for public sector contracts, regardless of funding source, must meet the judicial test of constitutional “strict scrutiny”.¹² Strict scrutiny is the highest level of judicial review.¹³ Strict scrutiny analysis is comprised of two prongs:

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

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

1. Statistical evidence of the underutilization of minority or woman firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are disparity indices,

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

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

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

comparable to the type of “disparate impact” analysis used in employment discrimination cases.

2. Anecdotal evidence of race- or gender-based barriers to the full and fair participation of minority- and woman-owned firms in the market area or in seeking contracts with the agency, comparable to the “disparate treatment” analysis used in employment discrimination cases.¹⁵ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, and other information.

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

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

In *Adarand v. Peña*,¹⁶ the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the United States Department of Transportation’s (“USDOT”) Disadvantaged Business Enterprise (“DBE”) program for federally assisted transportation contracts. Just as in the local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence.^{17,18}

Most federal courts, including the Fifth Circuit,¹⁹ have subjected preferences for Woman-Owned Business Enterprises (“WBEs”) to “intermediate scrutiny”.²⁰ Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related to the objective”.²¹ The quantum of evidence necessary to satisfy intermediate scrutiny is less than that required to satisfy strict

15. *Id.* at 509.

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

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

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

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

scrutiny. However, appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program²² or held that the results would be the same under strict scrutiny.²³

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review called “rational basis” scrutiny.^{24,25} The courts have held there are no equal protection implications under the Fourteenth Amendment of the United States Constitution for groups not subject to systemic discrimination.²⁶ In contrast to strict scrutiny and to intermediate scrutiny, rational basis means the governmental action or statutory classification must be “rationally related” to a “legitimate” government interest.²⁷ Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than that required for race- or gender-based measures to combat historic discrimination.²⁸

Unlike most legal challenges, the defendant bears the initial burden of producing “strong evidence” in support of its race-conscious program.²⁹ As held by the Fifth Circuit, the plaintiff must then proffer evidence to rebut the government’s case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional.³⁰ “[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail.”³¹

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20. See, e.g., *Associated Utility Contractors of Maryland v. Mayor of Baltimore*, 83 F. Supp. 2d 613, 620 (D. Md. 2000) (“*Baltimore I*”); *W.H. Scott Construction*, 199 F.3d at 206, 215, *Engineering Contractors Ass’n of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895 (11th Cir. 1997) (“*Engineering Contractors II*”); *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1519 (10th Cir. 1994) (“*Concrete Works II*”); *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990, 1009-1011 (3rd Cir. 1993) (“*Philadelphia II*”); *Coral Construction Co. v. King County*, 941 F.2d 910, 930-931 (9th Cir. 1991).
 21. Cf. *United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).
 22. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007), cert. denied 15-1827, June 26, 2017 (“*Northern Contracting III*”).
 23. *Western States Paving Co., Inc. v. Washington Department of Transportation*, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).
 24. See generally, *Coral Construction*, 941 F. 2d at 910; *Equality Foundation v. City of Cincinnati*, 128 F. 3d 289 (6th Cir. 1997).
 25. The United States Supreme Court first introduced this level of scrutiny in *Nebbia v. New York*, 291 U.S. 502, 537 (1934). The Court held that if laws passed have a reasonable relationship to a proper legislative purpose and are neither arbitrary nor discriminatory, the requirements of due process are satisfied.
 26. *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).
 27. *Heller v. Doe*, 509 U.S. 312, 320 (1993).
 28. The standard applicable to status based on sexual orientation of gender identity has not yet been clarified by the courts.
 29. *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).
 30. *W.H. Scott Construction*, 199 F.3d at 219; *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000), 532 U.S. 941, cert. granted then dismissed as improvidently granted, 534 U.S. 103 (2001) (“*Adarand VII*”).
 31. *Engineering Contractors II*, 122 F.3d at 916.

A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”³² To successfully rebut the government’s evidence, a plaintiff must introduce “credible, particularized evidence” that rebuts the government’s showing of a strong basis in evidence.³³ For example, in the challenge to the Minnesota and Nebraska DBE programs, “plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to, and participation in, federally assisted highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.”³⁴ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.³⁵ A plaintiff cannot rest upon general criticisms of studies or other related evidence; it must meet its burden that the government’s proof is inadequate to meet strict scrutiny, rendering the legislation or government program illegal.³⁶

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

B. Elements of Strict Scrutiny

In its decision in *City of Richmond v. J.A. Croson Co.*, the United States Supreme Court established the constitutional contours of permissible race-based public contracting programs. Reversing long established Equal Protection jurisprudence, the Court, for the first time, extended the highest level of judicial examination

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32. *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (2003) (10th Cir. 2003) (“*Concrete Works IV*”).
 33. *H.B. Rowe Co., Inc. v. W. Lyndo Tippett*, 615 F.3d 233 (4th Cir. 2010); *Midwest Fence Corp. v. U.S. Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority*, 84 F. Supp. 3d 705 (N.D. Ill. 2015), *aff’d*, 840 F.3d 932 (7th Cir. 2016) (“*Midwest Fence II*”).
 34. *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d. 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).
 35. *Coral Construction*, 941 F. 2d at 921; *Engineering Contractors II*, 122 F.3d at 916.
 36. *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Concrete Works II*, 36 F.3d at 1513, 1522-1523; *Webster v. Fulton County, Georgia*, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999), *aff’d per curiam*, 218 F. 3d 1267 (11th Cir. 2000); *see also Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

from measures designed to limit the rights and opportunities of minorities to legislation that inures to the benefit of these victims of historic discrimination. Strict scrutiny requires that a government entity prove both its “compelling governmental interest” in remediating identified discrimination based upon “strong evidence” and that the measures adopted to remedy that discrimination are “narrowly tailored” to that evidence. However benign the government’s motive, race is always so suspect a classification that its use must pass the highest constitutional test of “strict scrutiny”.

The Court struck down the City of Richmond’s Minority Business Enterprise Plan (“Plan”) because it failed to satisfy the strict scrutiny analysis applied to “race-based” government programs. The City’s “set-aside” Plan required prime contractors awarded City construction contracts to subcontract at least 30% of the project to Minority-Owned Business Enterprises (“MBEs”). A business located anywhere in the nation was eligible to participate so long as it was at least 51% owned and controlled by minority citizens or lawfully-admitted permanent residents.

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

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

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment... [I]f the City could show that it had essentially become a “passive participant” in a system of racial exclusion... [it] could take affirmative steps to dismantle such a system.”³⁷

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by notions of racial inferiority or blatant racial pol-

37. 488 U.S. at 491-92.

itics. This highest level of judicial review “smokes out” illegitimate uses of race by ensuring that the legislative body is pursuing an important enough goal to warrant use of a highly suspect tool.³⁸ It also ensures that the means chosen “fit” this compelling goal so closely that there is little or no likelihood that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny is designed to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.

Richmond’s evidence was found to be lacking in every respect.³⁹ The City could not rely upon the disparity between its utilization of MBE prime contractors and Richmond’s minority population because not all minority persons would be qualified to perform construction projects; general population representation is irrelevant. No data were presented about the availability of MBEs in either the relevant market area or their utilization as subcontractors on City projects.

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

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated “a strong basis in evidence for its conclusion that remedial action was necessary.”⁴⁰

This analysis was applied only to Blacks. The Court emphasized that there was “absolutely no evidence” of discrimination against other minorities. “The random

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

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

40. *Crosby*, 488 U.S. at 510.

inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."⁴¹

Having found that Richmond had not presented evidence in support of its compelling interest in remediating discrimination—the first prong of strict scrutiny—the Court made two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30% quota had no basis in evidence and was applied regardless of whether the individual MBE had suffered discrimination.⁴² The Court noted that the City “does not even know how many MBEs in the relevant market are qualified to undertake prime or subcontracting work in public construction projects.”⁴³

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

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that non-minority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion... Moreover, evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified.⁴⁴

While much has been written about *Croson*, it is worth stressing what evidence was, and was not, before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontrac-

41. *Id.*

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

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

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

tors and *no* evidence of the utilization of minority-owned subcontractors on City contracts.⁴⁵ Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court's rejection of Richmond's reliance on only the percentage of Blacks in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.⁴⁶

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

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (0.67%). There were no statistics presented regarding the number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.⁴⁷

Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In con-

45. *Id.* at 502.

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

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

trast, the USDOT DBE program avoids these pitfalls. 49 C.F.R. Part 26 “provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*”.

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

C. Establishing a “Strong Basis in Evidence” for the San Antonio Water System’s Program for Minority- and Woman-Owned Businesses

The case law on the DBE program should guide SAWS’ program for locally funded contracts. Whether the program is called an M/WBE program or a DBE program or any other moniker, the strict scrutiny test applies. As discussed, 49 C.F.R. Part 26 has been upheld by every court, and local programs for M/WBEs will be judged against this legal framework.⁴⁸ We note that programs for veterans, persons with disabilities, preferences based on geographic location or truly race- and gender-neutral small business efforts are not subject to strict scrutiny but rather the low level of scrutiny called “rational basis”. Therefore, no evidence comparable to that in a disparity study is needed to enact such initiatives.

It is well established that disparities between an agency’s utilization of M/WBEs and their availability in the relevant marketplace provide a sufficient basis for the consideration of race- or gender-conscious remedies. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to their success will meet strict scrutiny. Discrimination must be shown using statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems.⁴⁹ Specific evidence of discrimination or its absence may be direct or circumstantial and should include economic factors and opportunities in the private sector affecting the success of M/WBEs.⁵⁰

Croson’s admonition that “mere societal” discrimination is not enough to meet strict scrutiny is met where the government presents evidence of discrimination in the industry targeted by the program. “If such evidence is presented, it is immaterial for constitutional purposes whether the industry discrimination springs from

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

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

50. *Id.*

widespread discriminatory attitudes shared by society or is the product of policies, practices, and attitudes unique to the industry... The genesis of the identified discrimination is irrelevant.” There is no requirement to “show the existence of specific discriminatory policies and that those policies were more than a reflection of societal discrimination.”⁵¹

SAWS need not prove that it is itself guilty of discrimination to meet its burden. In upholding Denver’s M/WBE construction program, the court stated that Denver can show its compelling interest by “evidence of private discrimination in the local construction industry coupled with evidence that it has become a passive participant in that discrimination...[by] linking its spending practices to the private discrimination.”⁵² Denver further linked its award of public dollars to discriminatory conduct through the testimony of M/WBEs that identified general contractors who used them on City projects with M/WBE goals but refused to use them on private projects without goals.

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

1. Define the San Antonio Water System’s Market Area

The first step is to determine the market area in which SAWS operates. *Croson* states that a state or local government may only remedy discrimination within its own contracting market area. The City of Richmond was specifically faulted for including minority contractors from across the country in its program, based on national data considered by Congress.⁵³ SAWS must therefore empirically establish the geographic and product dimensions of its contracting and procurement market area to ensure that the program meets strict scrutiny. This is a fact driven inquiry; it may or may not be the case that the market area is the government’s jurisdictional boundaries.⁵⁴ This Study employs long established economic principles to empirically establish SAWS’ geographic and product market area to ensure that any program based on the Study satisfies strict scrutiny.

A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75% of the agency’s contract and subcontract dollar payments.⁵⁵ Likewise, the accepted approach is to analyze

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

52. *Id.* at 977.

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

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

55. *National Disparity Study Guidelines*.

those detailed industries that make up at least 75% of the prime contract and associated subcontract payments for the study period.⁵⁶ This produces the utilization results within the geographic market area.

2. Determine the San Antonio Water System's Utilization of M/WBEs

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

1. Develop the initial contract data files. This involves first gathering SAWS' records of its payments to prime contractors, and if available, associated subcontractors.
2. If the volume of contracts is too large to reconstruct in its entirety, a representative sample of the initial data file should be developed. In developing a statistically representative sample, two parameters are important: the confidence level and the confidence interval. The *confidence level* represents how certain it is that the sample is representative of the universe. A widely accepted confidence level is 95%; this means that we would be 95% confident that the sample is representative of the universe. The *confidence interval* indicates the margin of error of the results. (A margin of error statistic is often reported in political polls *e.g.*, a candidate should receive 55% of the total vote; but because the margin of error is five percent, the actual vote total might range between 60% and 50%). In the development of a study sample, it is important to have a confidence interval that is fairly high. Five percent has been accepted by the courts in challenges to M/W/DBE programs.
3. Develop the final contract data file. Whatever data are missing (often race and gender ownership, North American Industry Classification System ("NAICS") or other industry codes, work descriptions or other important information not collected by the agency) must be fully reconstructed by the consultant. While painstaking and labor intensive, this step cannot be skipped. Using surveys is unlikely to yield sufficient data, and so each contract must be examined, and the record completed to ensure a full and accurate picture of the agency's activities. It is also important to research whether a firm that has an address outside the market area has a location in the market area (contract records often have far flung addresses for payments). All necessary data for at least 80% of the contract dollars in the final contract data files should be collected to

56. *Id.* at 50-51.

ensure a comprehensive file that mirrors SAWS' contracting and procurement activities.

3. Determine the Availability of M/WBEs in the San Antonio Water System's Market Area

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

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

1. The development of the Merged Business Availability List. Three data sets are used to develop the Merged Business Availability List:
 - The firms in the M/WBE Master Directory. This methodology includes both certified firms and non-certified firms owned by minorities or women.⁵⁷ The Master Directory consists of all available government and private D/M/WBE directories, limited to firms within SAWS' geographic and product market.
 - The firms contained in SAWS' contract data file. This requires the elimination of any duplications because a firm might have received more than one contract for work in a given NAICS code during the study period.
 - Firms extracted from the Dun & Bradstreet *MarketPlace*/Hoovers database, using the relevant geographic and product market definitions.
2. The estimation of unweighted availability. The Merged Business Availability List will be the available universe of relevant firms for the study. This process will significantly improve the identification of

57. See *National Disparity Study Guidelines*, Chapter III, at 33-34.

minority-owned and woman-owned businesses in the business population. Race and sex must be assigned to any firm not already classified.⁵⁸ This will produce estimates of woman and minority business availability in SAWS' markets for each NAICS code in the product market; for woman and minority business availability for all NAICS codes combined; and for the broad industry categories of goods, services and construction. The detailed results should also be the basis for contract specific goal setting methodology.

3. The estimation of weighted availability. Using the weights from the utilization analysis, the unweighted availability should be adjusted for the share of SAWS' spending in each NAICS code. The unweighted availability determination will be weighted by the share of dollars SAWS actually spends in each NAICS code, derived from the utilization analysis. These resulting weighted availability estimates will be used in the calculation of disparity indices.

This adjustment is important for two reasons. First, disparity analyses compare utilization and availability. The utilization metrics are shares of dollars, while the unweighted availability metrics are shares of firms. In order to make comparable analyses, the dollar shares are used to weight the unweighted availability. Second, any examination of SAWS' overall usage of available firms must be conducted with an understanding of what NAICS codes received what share of agency spending. Without this, a particular group's availability share (high or low) in an area of low spending would carry equal weight to a particular group's availability share (high or low) in an area of large spending.

This approach has several benefits. As held by the federal court of appeals in finding the Illinois Department of Transportation's program to be constitutional, the "remedial nature of [DBE programs] militates in favor of a method of D/M/W/SBE availability calculation that casts a broader net" than merely using bidders lists or other agency or government directories. A broad methodology is also recommended by the USDOT for the federal DBE program, which has been upheld by every court.⁵⁹

Other methodologies relying only on vendor or bidder lists may overstate or understate availability as a proportion of SAWS' actual markets because they reflect only the results of the agency's own activities, not an accurate portrayal

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

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

of marketplace behavior. Other methods of whittling down availability by using assumptions based on surveys with limited response rates or guesses about firms' capacities easily lead to findings that woman and minority businesses no longer face discrimination or are unavailable, even when the firm is actually working on agency contracts.

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

This test has been rejected by the courts when directly addressed by the plaintiff and the agency. As recognized by the courts and the National Disparity Study Guidelines, these capacity factors are not race- and gender-neutral variables. Discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors. In a perfectly discriminatory system, M/WBEs would have no "capacity" because they would have been prevented from developing any "capacity". That certainly would not mean that there was no discrimination or that the government must sit by helplessly and continue to award tax dollars within the "market failure" of discrimination and without recognition of systematic, institutional race- and gender-based barriers. It is these types of "capacity" variables where barriers to full and fair opportunities to compete will be manifested. Capacity limitations on availability would import the current effects of past discrimination into the model, because if M/WBEs are newer or smaller because of discrimination, then controlling for those variables will mask the phenomenon of discrimination that is being studied. In short, identifiable indicators of capacity are themselves impacted and reflect discrimination. The courts have agreed. Based on expert testimony, judges understand that factors such as size and experience reflect outcomes influenced by race and gender: "M/WBE construction firms are generally smaller and less experienced *because* of discrimination."⁶⁰

To rebut this framework, a plaintiff must proffer its own study showing that the disparities disappear when whatever variables it believes are important are held constant and that controlling for firm specialization explained the disparities.⁶¹ Additionally, *Croson* does not "require disparity studies that measure whether construction firms are able to perform a *particular contract*."⁶²

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

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

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

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

62. *Crosen*, 488 U.S. at 508 (emphasis in the original).

4. Examine Disparities between the San Antonio Water System's Utilization of M/WBEs and M/WBE Availability

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

Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise... In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁶³

This is known as the "disparity ratio" or "disparity index". A disparity ratio measures the participation of a group in the government's contracting opportunities by dividing that group's utilization by the availability of that group and multiplying that result by 100. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.⁶⁴ An index less than 100% indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission's "80% rule" that a ratio less than 80% presents a *prima facie* case of discrimination.⁶⁵ Where possible, statistical techniques are applied to examine whether any disparities are significant. In addition to creating the disparity ratio, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors, known as an "economy-wide" analysis.⁶⁶

SAWS need not prove that the statistical inferences of discrimination are "correct". In upholding Denver's M/WBE Program, the Tenth Circuit noted that strong evidence supporting Denver's determination that remedial action was necessary need not have been based upon "irrefutable or definitive" proof of

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

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

65. 29 C.F.R. §1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact."); *see Engineering Contractors II*, 122 F.3d at 914.

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

discrimination. Statistical evidence creating inferences of discriminatory motivations was sufficient and therefore evidence of market area discrimination was properly used to meet strict scrutiny. To rebut this type of evidence, the plaintiff must prove by a preponderance of the evidence that such proof does not support those inferences.⁶⁷

Nor must SAWS demonstrate that the “ordinances will *change* discriminatory practices and policies” in the local market area; such a test would be “illogical” because firms could defeat the remedial efforts simply by refusing to cease discriminating.⁶⁸

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

Denver’s only burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and link its spending to that discrimination.... Denver was under no burden to identify any specific practice or policy that resulted in discrimination. Neither was Denver required to demonstrate that the purpose of any such practice or policy was to disadvantage women or minorities. To impose such a burden on a municipality would be tantamount to requiring proof of discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.⁶⁹

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination; there is no need to do so to meet strict scrutiny, as opposed to an individual or class action lawsuit.⁷⁰

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

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government’s markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination of whether the market functions properly for all firms regardless of the race or gender of their ownership. These analyses contributed to the successful defense of Chicago’s

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

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

69. *Id.* at 971.

70. *Id.* at 973.

construction program. As similarly explained by the Tenth Circuit, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs.... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.⁷¹

Business discrimination studies and lending formation studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."⁷² Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education", "culture" and "religion".

For example, in unanimously upholding the DBE Program for federal-aid transportation contracts, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners

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

72. *Id.*

compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.⁷³ The Eighth Circuit Court of Appeals took a “hard look” at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.⁷⁴

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

A study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because it is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it “brought the cold [statistics] convincingly to life.”⁷⁵ Testimony about discrimination practiced by prime contractors, bonding companies, suppliers, and lenders has been found relevant regarding barriers both to minority firms’ business formation and to their success on governmental projects.⁷⁶ 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.”⁷⁷ “[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,

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

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

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

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

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

in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”⁷⁸

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not— indeed cannot — be verified because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”⁷⁹ Likewise, the Tenth Circuit held that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”⁸⁰

D. Narrowly Tailoring a Minority-Owned and Woman-Owned Business Enterprise Procurement Program for the San Antonio Water System

Even if SAWS has a strong basis in evidence to believe that race-based measures are needed to remedy identified discrimination, the program must still be narrowly tailored to that evidence. As discussed above, programs that closely mirror those of the U.S. Department of Transportation’s Disadvantaged Business Enterprise Program⁸¹ have been upheld using that framework.⁸² The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

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

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

79. *Id.* at 249.

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

81. 49 C.F.R. Part 26.

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

- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and
- The duration of the program.⁸³

1. Consider Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are necessary components of a defensible and effective M/WBE program⁸⁴ and the failure to seriously consider such remedies has been fatal to several programs.⁸⁵ Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by SAWS without resorting to the use of race or gender in its decision-making. Effective remedies include unbundling of contracts into smaller units, providing technical support, and developing programs to address issues of financing, bonding, and insurance important to all small and emerging businesses.⁸⁶ Further, governments have a duty to ferret out and take appropriate measures against those who discriminate on the basis of race or other illegitimate criteria, whether they be contractors, staff, lenders, bonding companies or others.⁸⁷

The requirement that the agency must meet the maximum feasible portion of the goal through race-neutral measures, as well as estimate that portion of the goal that it predicts will be met through such measures, has been central to the holdings that the DBE program regulations meet narrow tailoring.⁸⁸ The highly disfavored remedy of race-based decision making should be used only as a last resort.

However, strict scrutiny does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious remedies may be utilized.⁸⁹ While an entity must give good faith consideration to

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

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

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

86. *See* 49 C.F.R. §26.51.

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

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

race-neutral alternatives, “strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement.”⁹⁰

2. Set Targeted M/WBE Goals

Numerical goals or benchmarks for M/WBE participation must be substantially related to their availability in the relevant market.⁹¹ For example, the DBE program regulations require that the overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient’s federally assisted contracts.⁹² “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.”⁹³

Goals can be set at various levels of particularity and participation. SAWS may set an overall, aspirational goal for its annual, aggregate spending. Annual goals can be further disaggregated by race and gender. Approaches range from a single M/WBE or DBE goal that includes all racial and ethnic minorities and non-minority women,⁹⁴ to separate goals for each minority group and women.⁹⁵

Goal setting is not an absolute science. In holding the DBE regulations to be narrowly tailored, the Eighth Circuit Court of Appeals noted that “[t]hrough the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets.”⁹⁶ However, sheer speculation cannot form the basis for an enforceable measure.⁹⁷

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets; goals must be contract specific. Goals must be narrowly tailored to remedy the effects of

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

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

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

92. 49 C.F.R. §26.45 (b).

93. *Id.*

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

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

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

97. *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003) (City’s MBE and WBE goals were “formulistic” percentages not related to the availability of firms).

prior discrimination and should not be rigid quotas.. Contract goals must be based upon availability of M/WBEs to perform the anticipated scopes of the contract, location, progress towards meeting annual goals, and other factors. Not only is this legally mandated⁹⁸, but this approach also reduces the need to conduct good faith efforts reviews, as well as the temptation to create “front” companies and sham participation to meet unreasonable contract goals. While this is more labor intensive than defaulting to the annual, overall goals, there is no option to avoid meeting narrow tailoring because to do so would be more burdensome.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.⁹⁹ An M/WBE program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.¹⁰⁰ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT’s DBE program.¹⁰¹ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹⁰² Further, firms that meet the goals cannot be favored over those who made good faith efforts and firms that exceed the goals cannot be favored over those that did not exceed the goals.

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

The over- or under-inclusiveness of those persons to be included in SAWS’ program is an additional consideration and addresses whether the remedies truly target the discrimination identified. The “fit” between the problem and the remedy manifests in three ways: which groups to include, how to define those groups, and which persons will be eligible to be included within those groups.

The groups to include must be based upon the evidence.¹⁰³ The “random inclusion” of ethnic or racial groups that may never have experienced discrimination in the entity’s market area may indicate impermissible “racial politics”.¹⁰⁴ In striking down Cook County, Illinois’ construction program, the

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

99. See 49 C.F.R. 26.43 (quotas are not permitted and set-aside contracts may be used only in limited and extreme circumstances “when no other method could be reasonably expected to redress egregious instances of discrimination”).

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

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

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

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

Seventh Circuit remarked that a “state or local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian-Americans and women.”¹⁰⁵ However, at least one court has held some quantum of evidence of discrimination for each group is sufficient; *Croscon* does not require that each group included in the ordinance suffer equally from discrimination.¹⁰⁶ Therefore, remedies should be limited to those firms owned by the relevant minority groups, as established by the evidence, that have suffered actual harm in the market area.¹⁰⁷

Next, the firm’s owner(s) must be disadvantaged. The DBE Program’s rebuttable presumptions of social and economic disadvantage, including the requirement that the disadvantaged owner’s personal net worth not exceed a certain ceiling and that the firm must meet the Small Business Administration’s size definitions for its industry, have been central to the courts’ holdings that it is narrowly tailored.¹⁰⁸ “[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor.”¹⁰⁹ Further, anyone must be able to challenge the disadvantaged status of any firm.¹¹⁰

5. Evaluate the Burden on Third Parties

Failure to make “neutral” changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs.¹¹¹ However, “innocent” parties can be made to share some of the burden of the remedy for eradicating racial discrimination.¹¹² The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. The

104. *Webster*, 51 F.Supp.2d at 1380–1381.

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

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

107. *H.B. Rowe*, 615 F.3d at 233, 254 (“[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina’s statute differs from measures that have failed narrow tailoring for overinclusiveness.”).

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

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

110. 49 C.F.R. §26.87.

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

proper focus is whether the burden on third parties is “too intrusive” or “unacceptable”.

Burdens must be proven and cannot constitute mere speculation by a plaintiff.¹¹³ “Implementation of the race-conscious contracting goals for which [the federal authorizing legislation] provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although the result places a very real burden on non-DBE firms, this fact alone does not invalidate [the statute]. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities.”¹¹⁴

Narrow tailoring does permit certified firms acting as prime contractors to count their self-performance towards meeting contract goals, if the study finds discriminatory barriers to prime contract opportunities and there is no requirement that a program be limited only to the subcontracting portions of contracts. The DBE program regulations provide this remedy for discrimination against DBEs seeking prime work,¹¹⁵ and the regulations do not limit the application of the program to only subcontracts.¹¹⁶ The trial court in upholding the Illinois DOT’s DBE program explicitly recognized that barriers to subcontracting opportunities also affect the ability of DBEs to compete for prime work on a fair basis.

This requirement that goals be applied to the value of the entire contract, not merely the subcontracted portion(s), is not altered by the fact that prime contracts are, by law, awarded to the lowest bidder. While it is true that prime contracts are awarded in a race- and gender-neutral manner, the Regulations nevertheless mandate application of goals based on the value of the entire contract. Strong policy reasons support this approach. Although laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination at the level of prime contracts, the indirect effects of discrimination may linger. The ability of DBEs to compete successfully for prime contracts may be indirectly

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112. *Concrete Works IV*, 321 F.3d at 973; *Wygant*, 476 U.S. at 280-281; *Adarand VII*, 228 F.3 at 1183 (“While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as *Adarand* will be deprived of business opportunities”); *cf. Northern Contracting II*, at *5 (“Plaintiff has presented little evidence that is [sic] has suffered anything more than minimal revenue losses due to the program.”).
 113. *Rowe*, 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).
 114. *Western States*, 407 F.3d at 995.
 115. 49 C.F.R. §26.53(g) (“In determining whether a DBE bidder/offeror for a prime contract has met the contractor goal, count the work the DBE has committed to perform with its own forces as well as the work that it has committed to be performed by DBE subcontractors and suppliers.”).
 116. 49 C.F.R. §26.45(a)(1).

affected by discrimination in the subcontracting market, or in the bonding and financing markets. Such discrimination is particularly burdensome in the construction industry, a highly competitive industry with tight profit margins, considerable hazards, and strict bonding and insurance requirements.¹¹⁷

6. Examine the Duration and Review of the Program

Race-based programs must have durational limits. A race-based remedy must “not last longer than the discriminatory effects it is designed to eliminate.”¹¹⁸ The unlimited duration and lack of review were factors in the court’s holding that the City of Chicago’s M/WBE construction program was no longer narrowly tailored; Chicago’s program was based on 14-year-old information which, while it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City’s efforts in 2004.¹¹⁹ How old is too old is not definitively answered,¹²⁰ but governments would be wise to analyze data at least once every five or six years.

In contrast, the USDOT DBE program’s periodic review by Congress has been repeatedly held to provide adequate durational limits.¹²¹ Similarly, “two facts [were] particularly compelling in establishing that [North Carolina’s M/WBE program] was narrowly tailored: the statute’s provisions (1) setting a specific expiration date and (2) requiring a new disparity study every five years.”¹²²

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

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

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

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

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

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

III. THE SAN ANTONIO WATER SYSTEM'S SMWVB PROGRAM

A. Overview of the SMWVB Program Policy

As a public utility owned by the City of San Antonio, the San Antonio Water System (“SAWS”)¹²³ seeks to redress discrimination in its marketplace for minority and woman enterprises via its Small, Minority, Woman, and Veteran-Owned Business (“SMWVB”) Program. It encourages full participation in all phases of its procurement activities and strives to afford a full and fair opportunity to all vendors to compete for SAWS contracts.

To comply with the dictates of strict constitutional scrutiny, as described in Chapter II, SAWS participated in the 2009 San Antonio Regional Business Disparity Causation Analysis Study (“2009 Study”).¹²⁴ The 2009 Study found evidence of ongoing effects of past discrimination in the local marketplace and in SAWS’ purchases of goods and services. In 2015, SAWS received an update of the 2009 Study. The 2015 Study¹²⁵ found a continuing underutilization of MBEs and WBEs in contracting opportunities on SAWS contracts as a result of private sector discrimination.

Based on these studies, SAWS concluded that it had a compelling governmental interest in remediating the racial and gender discrimination that exists in the market segments in which it conducts business. In 2017, SAWS established its SMWVB Policy (“Policy”). The Policy seeks to: (1) ensure that SAWS is not a passive participant in a discriminatory marketplace; (2) ensure that the program is narrowly tailored; (3) provide opportunities for SMWVBs to broaden and enhance their capacities to do business with SAWS; and (4) administer the program in a manner consistent with applicable federal and state law.

The Policy establishes the Program elements:

- Definitions;

123. SAWS was established pursuant to Article 1115, Texas Revised Statutes Annotated, and City of Antonio Ordinance No. 75686.

124. The 2009 Study, which was conducted by MGT of America, reviewed procurement activity from 2002 to 2006 for the San Antonio Metropolitan Statistical Area. The 2009 Study was conducted for a regional consortium composed of SAWS, the City of San Antonio, the Alamo Regional Mobility Authority, Brooks City Base, CPS Energy, the Edwards Aquifer Authority, Port San Antonio, the San Antonio Housing Authority, and University Health System.

125. The 2015 Study was also conducted by MGT of America, Inc.

- Annual aspirational goals;
- MBE and WBE contract goals;
- Payment reporting;
- Good faith efforts;
- Evaluation of construction contracts procured through alternative delivery methods;
- Post-award and contract compliance procedures;
- Program responsibilities;
- Race- and gender-neutral measure;
- SBE participation criteria;
- Race- and gender-neutral program requirements;
- Policy violations and sanctions;
- Miscellaneous terms; and
- Effective and sunset dates.

It is a violation of the Policy to:

- Fraudulently obtain, retain, or attempt to obtain, retain or aid another in fraudulently obtaining, retaining or attempting to obtain or retain certification status as an SBE, MBE, VBE, or WBE.
- Falsify, conceal or cover up a material fact or make any false, fictitious or fraudulent statements, reports, or representations, or make use of any false writing, document or electronic report knowing the same to contain any false, fictitious or fraudulent statement or entry pursuant to the terms of the Policy.
- Make false statements to any entity that another entity is or is not certified as an SBE, MBE, VBE, or WBE.
- Make false reports regarding payments made to subcontractors/ subconsultants in the Subcontractor Payment & Utilization Reporting (“SPUR”) System.

B. Program Eligibility

Only business enterprises that are certified as Small Business Enterprises (“SBEs”), MBEs, or WBEs, may participate in the SMWVB Program. SBEs, MBEs, and WBEs

must be certified prior to participating in the SMWVB Program. All MBEs WBEs must have SBE certification to be recognized by SAWS as MBEs or WBEs. Certifications are conducted by the South Central Texas Regional Certification Agency (“SCTRCA”) or by another entity designated by SAWS. The certification process determines whether the applicant firm is a bona fide SBE, MBE, WBE, or VBE. A firm may apply for multiple certifications (*e.g.*, MBE, WBE, SBE, etc.) for which it is eligible.

- Small Business Enterprise (SBE) is defined as a business structure formed with the purpose of making a profit, which is independently owned and operated and which meets the United States Small Business Administration (“SBA”) size standard¹²⁶ for a small business within the appropriate industry category.¹²⁷
- Minority Business Enterprise (MBE) is defined as a business structure 51% owned, operated, and controlled by a male or female ethnic minority group member who is legally residing in or is a citizen of the United States. The ethnic minority group members recognized by SAWS are African Americans, Hispanic Americans, Asian Americans, and Native Americans.
- Woman-owned Business Enterprise (WBE) is defined as a business structure 51% owned, operated, and controlled by a woman or women who are legally residing in or are citizens of the United States, who are ready, willing, and able to sell goods or services purchased by SAWS.

If Texas state law requires the owner(s) to have a particular license or other credentials to own and/or control a certain type of firm, then the owner(s) must possess the required license or credential.

Only business enterprises with a Significant Local Business Presence in the San Antonio Metropolitan Statistical Area (“SAMSA”)¹²⁸ may participate in the SMWVB Program for Construction, Engineering, and Professional Services solicitations. There is no local requirement for solicitations procured through the Purchasing Department. A firm has a Significant Local Business Presence if it has an established place of business in the SAMSA, at which one or more of its employees is regularly based. The place of business must have a substantial role in the applicant’s performance of its work. However, based on the findings of the 2015 Study that half of the SAWS’ procurement purchasing market was located outside of the SAMSA, SAWS counts SMWVB participation for commodity procurement and general services contracts with SMWVBs outside of the SAMSA.

126. The SBA’s size standard is stated in a number of employees or average annual receipts and varies by industry.

127. SBE certification includes firms certified as Historically Underutilized Businesses (“HUBs”) by the Texas Comptroller’s Office or SCRTCA under the state of Texas HUB program. However, if a firm is certified through the SCTRCA as an MBE or WBE, it must also be certified as a small business. Since HUB certification is slightly different, the SMWVB Program accepts the standalone certification.

128. SAMSA is defined as the counties of Atascosa, Bandera, Bexar, Comal, Frio, Guadalupe, Kendall, Kerr, McMullen, Medina, Uvalde, and Wilson.

While SAWS does not certify, it can submit a request to prioritize a review of an application. The request only pushes the application to the front of the line. The firm must still meet all the SCTRCA requirements.

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

As part of the Policy, SAWS uses race- and gender-neutral measures to facilitate the participation of all small businesses in SAWS contracting activities. These measures include, but are not limited to:

1. Requiring all SMWBs to have SBE certification.
2. Arranging solicitation times for the presentation of solicitations to facilitate the participation of interested contractors and subcontractors;
3. Segmenting contracts to facilitate the participation of business enterprises;
4. Providing timely information on contracting procedures, solicitation preparation, and specific contracting opportunities;
5. Holding pre-bid and pre-proposal conferences, where appropriate, to explain projects and encourage other contractors to use all available business enterprises as subcontractors;
6. Adopting prompt payment procedures, including requiring by contract that prime contractors pay subcontractors (or subconsultants) within ten days of receipt of payment from SAWS;
7. Collecting information for expenditures to subcontractors (or subconsultants) utilized by prime contractors (or consultants) on SAWS contracts;
8. Maintaining a continuous process for information flow between contractors and consultants and SAWS;
9. Reviewing bonding and insurance requirements to eliminate unnecessary barriers to contracting with SAWS; and
10. Referring complaints of discrimination to the appropriate state or federal agency for investigation and resolution or taking other action as appropriate.

D. Goal Setting Policies and Procedures

SAWS has adopted annual aspirational goals for M/WBE prime and subcontractor or subconsultant participation in SAWS contracts based upon broad industry availability results from the 2015 Disparity Study. The goals apply to construction, engineering, professional services, commodity procurement, and general services. Aspirational goals are benchmarks to measure the effectiveness of the M/WBE program. Contract goals are considered when there is the availability of at least

three certified MBEs or WBEs. When SMWVB availability is uncertain, SMWVB scoring is modified to include points for outreach only, or SAWS may waive the SMWB component of a solicitation entirely.

Annual participation goals may be revised for the balance of the term of the SMWVB Program if SAWS finds that the Program has yet to redress the effects of discrimination in its marketplace for MBEs and WBEs, and that absent race- and gender-conscious measures, SAWS would be a passive participant in a discriminatory marketplace.

The current annual aspirational goals for M/WBEs are:

- Construction: 20%
- Engineering: 40%
- Professional Services: 40%
- Procurement (Commodities and General Services): 19%

SAWS tracks veteran-owned business enterprises for statistical purposes; however, it does set goals or award points for VBE participation.

E. Program Administration

The SAWS SMWVB Program Office is primarily responsible for general oversight and administration of the SMWVB Program. The Program Manager is responsible for oversight, monitoring, administration, implementation, and reporting of the Program. The Program Manager reports directly to the Contracting Director. The Program Manager is SAWS representative on the SCTRCA Board.

SAWS' Contracting and Purchasing Departments have primary responsibility for ensuring that program contract specifications are included in all appropriate solicitation documents.¹²⁹ SAWS maintains various vendor lists.¹³⁰

These departments are also primarily responsible for informing the Program Manager of change orders and contract amendments, including proposed changes to subcontractors' or subconsultants' participation on contracts.

129. The Purchasing Department is responsible for the procurement of all of the supplies, materials and equipment necessary for the delivery of water and wastewater services. It is the only entity within SAWS authorized to contract for goods and general services over \$3,000. A new procurement platform, WAVE, was installed in 2020. Vendors are required to register and submit procurement bids for goods and general services online.

130. The Purchasing Department's vendor registration list for access to solicitations for Goods and General Services is part of an e-bidding site that was launched in August of 2020: <https://sawsbid.ionwave.net/Login.aspx>. The Contracting Department's Vendor Registration and Notification system for Heavy Civil Construction and Professional Services was developed by the SAWS webmaster and is found in the following webpage: https://apps.saws.org/business_center/vendor/

SAWS' standard payment terms are 30 days. SAWS includes prompt payment and retainage¹³¹ provisions in appropriate contracts, including that vendors must pay their subcontractors within 10 days of receiving payment from SAWS.

1. Pre-Award Procedures, Utilization Plan Review and Good Faith Effort Determinations

A respondent to a SAWS solicitation for which an M/WBE or an SBE goal has been established must demonstrate its intent to comply with the Program by submitting Good Faith Efforts ("GFE") Plan either to achieve the goal or documenting its GFEs to do so.

The Plan is due at the time set forth in the solicitation. SAWS provides lists to the respondents that establish the minimum universe from which a respondent may solicit certified firms.

Self-performance and subcontracting may be used to achieve aspirational goals (and earn points if applicable). Compliance with Program bid specifications is material in determining whether a bid or proposal is responsive.

Up to 15 points are available for SMWB participation in professional services/ engineering solicitations for meeting the goal. Five (out of a possible 15) points are available on Environmental Protection Agency Consent Decree projects to a firm that uses certified subconsultant firms who have never done business with SAWS previously and will perform at least 10% of sewer design services work. Firms may use any combination of points when attempting to meet goals. Prior subconsultant utilization compliance averages for the past two years may be considered when totaling the score, based on data from the SAWS' SPUR System.¹³² Up to three points may be deducted from the goal, based on the actual utilization of SBEs or M/WBEs on recent SAWS projects. This option does not apply to work orders and unspecified contracts.

As set by SMWVB policy, on alternative delivery method solicitations for construction contracts,¹³³ and at the discretion of the Program Manager, up to 10% of the total weighted selection criteria points can be awarded to firms demonstrating GFEs. At least three M/WBEs must be available and capable to perform when determining whether to use this evaluation criteria in the contract award process. The current Construction Alternative Delivery Scoring

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131. Retainage is the withholding of funds due to a contractor or subcontractor until the construction project is complete. It is intended to serve as a financial incentive and an assurance that the contractor will complete the project in a satisfactory manner.
 132. SPURS is powered by B2Gnow, a comprehensive and widely used supplier diversity compliance and grant management software solution.
 133. Alternative delivery methods are those other than the traditional design-bid-build. They are used to maximize the positive outcomes of a project and provide the greatest value and benefit to the owner and its customers.

Scale allows respondents to earn up to 10 points for SBE or M/WBE participation meeting or exceeding 20%.

The Program Manager determines whether the respondent has made GFEs. SAWS will consider, at a minimum, the respondent's efforts to:

1. Solicit M/WBEs within the marketplace who have the capability to perform the contract work. The respondent must solicit this interest within sufficient time to allow the M/WBEs to respond to the solicitation and must take appropriate steps to follow-up initial solicitations with interested M/WBEs. The respondent must state a specific and verifiable reason for not contacting each certified firm with a significant local business presence.
2. Provide interested M/WBEs with adequate information about the plans, specifications, and requirements of the contract, including addenda, in a timely manner to assist them in responding to a solicitation. Respondents must take appropriate steps to follow-up initial solicitations with interested M/WBEs.
3. Negotiate in good faith with interested M/WBEs that have submitted bids or proposals to the respondent.
4. Effectively use the services of M/WBE-oriented contractor groups; local, state, and federal M/WBE assistance offices, and other organizations to provide assistance in solicitation and utilization of M/WBEs.

Certified firms must be competitive with non-certified firms on price, quality, and delivery. Respondents are not required to accept higher quotes in order to meet goals. The fact that there may be additional costs involved in soliciting and using MBEs and WBEs is not a sufficient reason for a respondent's failure to meet the goals, as long as costs are reasonable. M/WBEs may not be rejected without sound reasons based upon a thorough investigation of their capabilities and qualifications. The M/WBE's standing within its industry, membership, in specific groups, organizations, or associations and political or social affiliations are not legitimate causes for rejecting or not soliciting M/WBEs to meet goals. The ability or desire of the respondent to perform the work of the contract with its own organization does not relieve the respondent of the responsibility to make GFEs. A respondent who desires to self-perform the work of the contract must demonstrate GFEs unless the goals have been met. Respondents must also state a specific and verifiable reason for not contacting each certified firm with a Significant Local Business Presence.

As part of the GFE determination, SAWS will also consider the performance of other respondents in meeting the contract goals. If the apparent successful respondent fails to meet the goals but meets or exceeds the average MBE/WBE participation obtained by other respondents, this may be viewed as evidence that the apparent successful respondent made GFEs.

The Program Manager will review the GFE Plan within a reasonable time in order to avoid unduly delaying award of the contract. The Program Manager may request written clarification of the Plan. If the goals have been achieved, he or she recommends award of the contract.

If the Program Manager determines that the respondent did not make sufficient GFEs, he or she recommends to either the Director of Contracting or Director of Purchasing that the bid/proposal be rejected as non-responsive. The Director may accept the recommendation, reject the submittal as not being in compliance with the Policy, or may advise the Program Manager of additional considerations which may form the basis for accepting the submittal as being in the overall interest of the Policy and SAWS. The Contracting or Purchasing Department will evaluate the remaining submittals that achieve the goals or demonstrate GFEs.

2. Counting M/WBE and SBE Participation

The amount or portion of a contract performed by a certified firm, including the cost of supplies and materials, will be counted towards the contract goal(s). Any fees or commissions charged by M/WBEs or SBEs for providing a service such as insurance or bonds will be counted. However, supplies and equipment purchased from the prime contractor or affiliate are excluded. Contractors with multiple certifications are counted only once toward a particular goal. If a firm ceases to be a certified M/WBE during the contract, the dollar value of work performed under the contract with a firm after it has ceased to be certified is not counted.

3. Commercially Useful Function Reviews

To be counted towards meeting a contract goal, the certified firm must perform a commercially useful function (“CUF”). A firm performs a CUF when it is responsible for the execution of the work of the contract and for carrying out its responsibilities by actually performing, staffing, managing and supervising the work involved. To perform a CUF, the firm must be responsible, with respect to materials and supplies used in the contract, for negotiating price, determining quantity and quality, ordering the material, and installing (where applicable) and paying for the material itself. SAWS will evaluate the amount of work subcontracted; normal industry practices; whether the amount the firm is to be paid under the contract is commensurate with the work it is performing; the SMWVB credit claimed for the performance of the work; and other relevant factors. A firm does not perform a CUF if its role is limited to that of an extra participant in a contract through which funds are passed in order to obtain the appearance of meaningful and useful SMWVB participation; SAWS

will examine similar transactions in which SMWVB firms do not participate to evaluate the proposed role.

When the M/WBE is presumed not to be performing a CUF, the M/WBE is afforded the opportunity to present evidence to rebut the presumption. The SMWVB Program Manager may determine that the Firm is performing a Commercially Useful Function given the type of work involved and normal industry practices.

4. Post Award Contract Administration and Compliance Procedures

Contract monitoring is an important component of the SMWVB Program. In 2011, SAWS implemented the Subcontractor Payment and Utilization Reporting (SPUR) System, ~~SPURS~~, the B2Gnow software for subcontractor payment reporting to track payments to both primes and subcontractors. The SPUR System also provides automated email communications with contractors about compliance issues; submission of contractor utilization reports online with automated tracking of contract goals and participation; and automatic verification of subcontractor payments. All contractors are required to report electronically actual payments to all subcontractors on the schedule and in the format prescribed by SAWS. The System verifies subcontractor payments and tracks SMWVB participation and utilization against contract goals. Certified firms may also register as SMWVBs in the System.

Contractors cannot make changes to the Plan or substitute contractors listed in the Plan without the prior written approval of the Program Manager. Unauthorized changes or substitutions are deemed a violation of the Policy and may constitute grounds for termination of the executed contract for breach, and/or subject the prime contractor to penalties or other sanctions.

All requests for changes and substitutions of subcontractors listed in the Plan are made to the Program Manager in writing and must clearly set forth the basis for the request. The contractor may not substitute a subcontractor or perform the work designated for a subcontractor in the GFE Plan with its own forces unless and until the Program Manager approves the substitution in writing. The contractor may not allow a substituted subcontractor to begin work until both the Program Manager and the Contracting or Purchasing Director have approved the substitution. Substitution is permitted only for the following reasons:

1. Unavailability after receipt of reasonable notice to proceed;
2. Failure of performance;
3. Financial incapacity;
4. Refusal by the subcontractor to honor the bid or proposal price;

5. Mistake of fact or law about the elements of the scope of work of a solicitation where a reasonable price cannot be agreed;
6. Failure of the subcontractor to meet insurance, licensing or bonding requirements; or
7. The subcontractor's withdrawal of its bid or proposal.

Prior to contract expiration or closeout, the Program Manager evaluates the contractor's fulfillment of the goal(s), considering all approved substitutions, terminations and changes to the contract's scope of work. Since goals are aspirational, waivers are not required if a respondent is below the goal. However, the contractor must provide a written explanation for why the goal was not met and demonstrate its GFEs to meet the goal.

Program rule or standards violations, abuse or suspected fraud may be referred to the Program Manager for investigation, review, and appropriate sanctions or resolution.

F. Outreach, Business Development and Training

SAWS provides an outreach calendar on its website.¹³⁴ Scheduled events include workshops, seminars, lectures, and other functions promoting the SMWVB Program. The website is dedicated to SMWVBs and provides a link to the SPUR System, outreach, SMWVB Policy and presentations, an online tutorial about doing business with the Purchasing Department, and links to certifying agencies and relevant resources.

The agency conducts an annual Capital Improvement Program Outlook Meeting every January, which focuses on heavy civil construction and professional services solicitations. The video is posted on our website and includes the list of upcoming projects in two different places.¹³⁵

Information that firms can use to increase their information about doing business with SAWS include viewing the winning vendor for a specific solicitation.¹³⁶ Live training is available for the SPUR System for online certification applications and contract compliance. Additionally, the Contracting Department offers a Solicitation Submittal Tip list, and the Purchasing Department offers a guide for suppliers which is available for downloading. Staff have attended B2Gnow conferences as well as other local class opportunities through the Small Business Development Center and SCORE.

134. https://apps.saws.org/Business_Center/smwvb/calendar/.

135. https://apps.saws.org/Business_Center/Contractsol/futureOp.cfm and <https://www.saws.org/infrastructure/cip/>.

136. See https://apps.saws.org/Business_Center/Contractsol/archive.cfm for contracting bids and https://apps.saws.org/Business_Center/procbids/Archive.cfm for purchasing bids.

While SAWS does not offer assistance services or a formal mentor protégé program, a link to the City of San Antonio's Mentor Protégé Program on its website.¹³⁷ SAWS also publishes links to other entities that can assist firms with technical and financial assistance. These include the LiftFund and PTAC Assistance Center.

In 2017 and 2018, SAWS sponsored or participated in more than 35 events to foster visibility of M/WBEs and provide information concerning how to do business with SAWS. In 2020, SAWS offered more outreach than any other year. Events include networking sessions, luncheons, informational meetings, conference presentations, lectures, workshops, and pre-bid conferences. An important outreach component involved leveraging the services of M/WBE-oriented community organizations, contractor groups, and local, state, and federal M/WBE business assistance offices. These organizations included the San Antonio Hispanic Chamber of Commerce and the Maestro Entrepreneur Center. Sponsored events included:

- Meet the Engineering Leadership networking session.
- The African American Business Enterprise Contracting Series in partnership with Alamo College, SAGE San Antonio, and VIA Metropolitan Transit.
- City of San Antonio Vendor Orientation/How to do Business with Local Governmental Agencies workshop.
- Presentations at local conferences, such as Bexar County Small, Minority, Woman, Veteran, Disabled Business Opportunity Conference, SCORE San Antonio Business Opportunities Council.
- Monthly luncheons hosted and sponsored by local community organizations.
- Contracting workshops: African American Business Enterprise Contracting Workshop- *Building Resiliency in a Recovering Economy*.
- PTAC webinars.

Specific focus has been on the African American community. These efforts encompassed meetings with the Black Contractors Association to identify initiatives to increase access to government contracting. SAWS also coordinates outreach to the community through these two organizations, as well as through the NAACP.

137. To qualify for the City's program through its Small Business Office, firms must be certified as a SBE through SCTRCA.

G. Experiences with the San Antonio Water System's SMWVB Program

To explore the impacts the SAWS' SMWVB program, we interviewed 80 individuals about their experiences and solicited their suggestions for changes. We also collected written comments from 147 business owners or representatives about their experiences with the SMWVB program through an electronic survey.

1. Business Owner Interviews

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

a. Access to information about contracting opportunities

Many interviewees praised SAWS as a good agency for which to work. More access to information about opportunities and the outcomes of solicitations was suggested as a way to improve the agency's operations.

[SAWS] said, "We're going to award a contract in November," and then we don't even hear or it's not on a website. Did anybody get it? I checked their agenda this last month for a specific RFP on [scope], and it was not on there. So again, crickets. We don't know, is it still in consideration? Even if it's on the website that we could check. They could say this RFP has been delayed. That would be great, but otherwise we're kind of sitting around waiting for them to let us know if it's been extended or if, did the RFP go away. So, just communication would be wonderful.

If [prime vendors] ask you for a bid, seldom do they ask, but when they do you never hear who got it? What was the cost? That type of stuff you never know. So, on our end, we feel like we're wasting a lot of time getting these bids and they're probably not going to come through.

One respondent reported that once the relationship is established with SAWS staff, information flows more freely.

Once you do get a couple contracts or sales with them, they're very good about reaching out to you with other opportunities. So, we've found that to be good.

b. Contract requirements

While recognizing that the agency's projects are often large and complex, several small business owners stated that often the solicitation requirements impede their ability to perform work for SAWS. Liability insurance was one type of barrier.

SAWS contracts are very onerous. And that liability ultimately gets passed on to the small contractors. And if you have these large insurance requirements [on prime contracts], very large insurance requirements written into your contracts, there is no way that a small contractor can participate on that contract because of those conditions.

The thing we've found challenging [in seeking prime contracts] are the high insurance limits on that \$3M policies for call it \$10,000 worth of work type of situations. The premiums are extremely high for the little bit of opportunity you have available. That's one of the challenges I've seen and experienced.

Some large prime contractors agreed that high insurance coverage limits constrain their ability to include smaller firms on SAWS contracts.

With our contracting group, they've specifically prohibited us from entering contracts with people that said they couldn't do that amount of insurance or didn't want to do that amount of insurance. So, I think if they did change the way that it's written in the general provisions, it would be possible at least alleviate some of that.

c. Payments

There was near universal agreement that SAWS pays promptly.

SAWS does an excellent job of paying us on time. I think they're an awesome customer, and I enjoy working with them and hope to continue to do so.

I agree as well. SAWS has paid on time as well.

I've been working with SAWS for 20 years. I've never had any problems with payment.

Once the invoice is approved, you're paid by SAWS in a very expeditious manner.

We don't have any problem getting paid, SAWS pays well.

d. Obtaining prime contracts with SAWS

Many M/WBE owners desire to become prime contractors or consultants with SAWS. It can be difficult to make that transition from subcontractor to a direct relationship with SAWS in part because of the lack of interaction with agency project managers and decision makers.

They tend to lean to the project managers they're just accustomed to working with. Since we're only a sub, not all primes allow us to meet the SAWS team and the SAWS people.... We don't get to hear the feedback directly from them. We don't know if they're not happy with us. We just know what the prime tells us.

There's firms out there that all they're doing is working as a sub and it makes it really difficult to make those vital connections with SAWS P[roject] M[anager]s.

An agency mindset of favoring large, national firms was a common perception.

Be a little bit more open and open-minded with what the smaller guys can do. You'd be surprised. What we've done to not only build things in San Antonio, but to also service San Antonio.

The culture needs to change a little saying, "Let's give good, qualified, small to medium-sized business, an opportunity for those little bigger contracts", because we can win them. We can deliver them, but I have no choice if a big IT contract comes up, I'm better off just teaming with some big boy and try to ride coattails, even though I know that we can probably do it.

[As] small businesses, we might go in there and do some small contracts, and we set the pace and then when they go out to RFP for the next project, they don't even consider us. But we were considered to do all the smaller projects and give a lot of pro bono hours. And then they give it to very large agencies, non-minority, non-women and that just doesn't feel right or tastes good. If they want to keep it small, they're doing a very good job of that, but it's like, "We'll give you the 50, \$60,000 contracts, but heaven forbid, we give you anything over \$100,000".

Our other challenge is that we're competing with regional and national companies.

Experience requirements were reported by some firms, both M/WBEs and non-M/WBEs, to shut them out of SAWS work.

[SAWS is] requiring that you provide a past project experience. And the past project experience is limited to projects that have been completed and projects that are less than five years old. Well, as a smaller firm, we may have done projects that fit the criteria of the project they're soliciting for. But that experience is more than five years old because as a small firm, we just don't get to do that many projects. Let's say, for example, [project type] we might get one every 10 years. So, it's hard for us to chase this work as a prime if we can't demonstrate that experience.

[SAWS] cut[s] out every local contractor around on a lot of their bigger jobs because they make the requirements. They haven't even done one of those jobs in five years, but they make the requirements. So, there's nobody local that does any of it.

Another impediment is the size of SAWS contracts. Making projects smaller or less complex was suggested as a way to increase M/WBE participation.

Number one [improvement] was debundling.

Splitting the RFQs to more manageable, smaller projects is actually bringing value to the agency as far as pricing. Because you hire a big giant company for all over the place, you're paying for their overhead and travel and everything else.

One representative from a national consulting firm echoed the sentiment that M/WBEs need to move into the prime role.

I think is critical and important being on both sides is that the small minority firms can self-perform that 40%. I think that's better for the small firm and the big firm both, and for SAWS. I think that's a very important aspect, just because of the flip-flopping opportunities. I think it gives a small, more opportunity to prime and go after stuff that they can team up with bigger firms and self-perform that 40%. And it just helps the partnerships and relationships across the board.

e. M/WBEs' experiences with SAWS' SMWVB Program

Overall, M/WBEs believed that SAWS program works well.

SAWS has a really excellent program in place.

Eventually I broke through and I got the contract and I feel like they'd been really fair because in our infancy, we weren't the greatest and we made some mistakes and they overlooked those mistakes and coached me as a small business. So, I'm really grateful to them for that.... We are definitely very fortunate that our contract that started with SAWS, they are now one of my references, and because of them we've been able to get contracts.

We have highly benefited from being a subconsultant on several teams. People, once they saw our work, they continue to use us repetitively [on SAWS projects]....

Some certified consultants reported that large prime firms insist that in exchange for being used to meet goals on SAWS contracts, the M/WBEs should in turn give the large firms work on other clients' projects.

Some [prime] firms still want something for the fact of including us on their teams, which seems a little unfair sometimes. Like a firm will say, "Look, we'll include you on this pursuit, but you have to give me a project on something else for me to include you on the team...." I've had one firm that says, "We're going to put you on our team, but before I can put you on our team, you have to give us a project or a task within a project that you already have so that we can work on it. [I have to cut them into work that I already have] just to have a chance to be on their team that they haven't even won the project with yet. That's a problem.... The only way they'll provide us an opportunity is if we give them something, basically give them work that we probably barely have to a bigger firm just so we can be on their team.

I have letters that people are telling me, "Okay, [name], now you need to help me." And it's like, "Okay, let me get this straight. You guys generate millions and millions upon million dollars in revenue on sometimes on a daily basis. And you're asking me to help you?"... Where there was a firm that put me on their team, we did a few projects together and then I get an email saying, "Hey, by now we would have expected to get some money from you." I mean, it's just really crude.... We could do more work if we didn't have this pressure. We could definitely do more work.

More comprehensive monitoring of prime vendors' M/WBE contractual commitments and actual inclusion of certified firms was suggested by several participants.

There need to be more site visits on the small minority women-owned businesses that are being selected for contracts or subcontracts to make sure that they legitimately carry those lines that SAWS has approved.

Better communication from prime firms to their subcontractors would help the entire contract performance process to run more smoothly and provide more benefit to the smaller firms.

I would like it if SAWS would require the prime to give us the actual schedule that they give them.... We want to know when everything is actually due so we can meet that, meet the requirements, because if they have to submit it to SAWS on one day and they want the stuff a whole month earlier, that doesn't make any sense. That just makes it harder for us to do that. It just would allow us to have a little bit of feedback if we could see it.

[The M/WBE's] percentage went down because the work wasn't necessary. That's perfectly acceptable. But provide an explanation, have those firms explain why they didn't meet their goal. And move on. Because if the answer is, well, we just were greedy and we didn't want to use that firm, well, that's not an acceptable answer.

Ensuring that subcontractors are paid promptly was a specific area for improvement.

I wish somebody at SAWS would track when the sub submits their invoice versus when they actually get paid. I only say that because there is a system that SAWS has connected with the city, but it doesn't say when us as a sub submitted the invoice to the prime. I know the prime submits their invoice and then they pay it based on when they get paid, which is fine, but sometimes they ask us to do so much and then we submit our invoices, but we don't know when they submit to SAWS. There's some contracts that I have that are seven months behind.... SAWS will send us emails sometimes, and I've even sent emails to the prime saying, "Just to be clear, you say you haven't paid me because you haven't received the funds, but I want to

confirm. You haven't been paid in seven months by SAWS?"
They won't answer that.

When I work as a prime, usually I get paid within as you know, sometimes as soon as 15 days, 30 days is the average. But when you work as a sub, you're waiting on payment sometimes over a 100 days plus sometimes.

Prime firms' imposition of unnecessary insurance requirements onto sub-contractors was an impediment to M/WBE participation.

I wish somebody would actually follow-up on the requirements prime instills on the subconsultants. By that, what I mean is we have one contract where the prime required us to have more insurance than the contract stipulates for them as a prime to have. They're making us get a higher level of insurance than even SAWS has because that's their company standard. It seems a little unfair, because then what they make us do, that makes us have a higher premium. It's not a huge amount, but it's enough.

Their prime agreement requires \$3M, but yet they're asking me to carry \$5M.

One owner suggested a clear avenue to report suspected fraud.

SAWS can put in place a process [to report fraud] that's at least public about what to do if you see that.

Another recommended enhancement from M/WBEs would be to adopt a mentor-protégé program.

[What has been] helpful to other small businesses is the City of San Antonio Mentor Protégé Program. If you go through that, you get mentored. But if a company proposes on a contract, they get a point preference if they're a mentor for a protégé of the city.... Maybe SAWS could consider that.

I would be very interested in being part of a protégé program. What's going to drive these firms, these firms are unless there's an interest and they get brownie points, they're not going to help us, it's not going to happen.

Some larger prime firms agreed.

Develop mentor-protégé programs for the beginning firms, have the program for five, maybe 10 years or X number of revenue, just like other agencies do it. But I'm not saying cut

them off but analyze their efforts in the industry as well. And if they were reputable, if they've been good partners to their other partners, whether they're prime or sub, then maybe they do need to extend it just a couple of more years.

I feel like the mentor-protégé should be kind of also encouraged for these companies. They haven't been doing any prime work for SAWS.

f. Meeting Contract Goals

There was support among many large firms for the overall objectives of the program.

There's plenty of smaller firms that are capable of performing the work.... you're working with them to kind of beef up their technical skills. I think that's the whole point of the program, is to broaden the field of potential consultants in the local market.

So, the fact that we have this goal really, really helps San Antonio and the professionals that live here to develop and to keep the money in San Antonio. It is pain, I have to admit. But the purpose I think is bigger than the business end.

One participant questioned whether large consulting firms have a need for subs, regardless of ownership.

You probably would not need any subs if you didn't have a requirement. Because especially now with the communications, we can have design centers anywhere in the world, anywhere in the country. In the past it used to be that certain firms were known for having client centers in certain cities and the rest of their satellite offices tried to do their own.

While sometimes a challenge, most prime contractors were able to meet M/WBE goals.

We haven't had any issues reaching that goal and even exceeding the goal of 40%. I think most everybody on this call feel they have to hit it to be even considered to rank up there with what turns out to be a good list of projects and our bread-and-butter stuff.... [But] you do find a lot of overloaded small firms that do conform to the categories. And it's hard to find the right person.

It is challenging because it is a high percentage.... You need to meet the 40% but your scope is kind of limited.... There're some disciplines that you cannot meet your good faith effort.

SAWS' 40% goal on consulting and professional services contracts was often described as difficult to meet or manage.

I do have to of course monitor the participation of our subs, minority subs in our projects and it's been a little challenge.

One thing that's made that even harder is with the 40% goal is also limited to local.... That's where we've seen some challenges there with the very large contracts, to fill that percentage. And then the highly specialized work. It works pretty well though for your kind of more run of the mill or more common services that SAWS does every year.

The SAWS contracts that we've had, the schedules are really aggressive. So that's been difficult. I've visited with SAWS about it. Apparently, I'm not the only one who's brought that up but we do the best we can. But some of it's out of our hands when we're trying to manage so many subs and meet schedules and they're already busy.

Several prime consultants mentioned being burdened with additional oversight of their M/WBEs.

It's a big percentage. It can be tough to hit. It makes it so that the contracts are challenging to manage. And there are some inefficiencies in project delivery that are baked into the complexity of those contracts and how they necessarily have to be managed.

Task order or job order contracts– which do not have defined projects at the time of award– present special challenges.

You could start with a scope of a certain size during the negotiation of the fee of that task order. And then as you move along in the fee negotiation they reduce the scope. And then you're left with deciding, "Okay. Do I participate at all? Or do I give everything to my subs?" And I think there should be a balance.

We've done a lot of [on-call services] contracts in the past. And you put together large teams and you try to cover all the bases. And you really don't know until that assignment

comes out what the scope's going to be. And it can make it challenging, hitting that 40% with the team that you had identified.

It'd be great for the prime consultant to have that flexibility to meet that goal over the course of that entire contract versus just under individual work order.... You want to give your sub consultant meaningful opportunities. And by keeping it at a contract level, instead of doling out smaller projects, if there's more meaningful projects for them to develop a skill set and they in turn can either bring on the staffing or develop that those skills in house, they can then carry that on and continue to service SAWS moving forward.

And so that's where you have to make a decision. Okay. Will I have more opportunity to make sure that I can meet my good faith efforts for all the subs? Does it make any sense right now to give everything to the subs and completely take my participation, just leave it as a PM? Or do I probably, instead of doing this type of services through myself, I do it myself because we can do it. It's challenging. I don't know. Those contracts are tricky.

Some prime proposers related how they account for the costs of program compliance in their price proposals to SAWS.

We integrate those [costs] into our negotiations with SAWS and try to establish fees with SAWS that account for those difficulties in managing large complex teaming arrangements.

[Program compliance] is an evolving challenge that I can identify that requires also more time. I've had conversations with project management subs to say, "What degree of expectation should I have of the firms that work for me?" I should expect that they provide exactly the same quality detail, the detailed quality management that I provide. Otherwise, I have to duplicate. If I have to check everybody at work like it's my staff for the first time, then they're doing some quality check, I'm doing some quality check. And that also becomes a higher expense, either for us by having to absorb it or to SAWS if they have to pay.

Bidders or proposers who had been unable to meet the goal generally reported that SAWS was reasonable in considering their good faith efforts to do so.

With good faith effort plans, we've been very successful. We've never been downgraded or not awarded a [construction] contract on a low bid job because we haven't met the 20%.

They're flexible on [making good faith efforts].

2. Business Owner Survey Comments

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

a. M/WBEs' Experiences with SAWS SMWVB Program

M/WBEs reported good experiences with SAWS' program and complemented SAWS staff.

SAWS specifically has done a good job in using the SMWVB program within San Antonio.

SAWS does an excellent job allowing anyone to bid on jobs. Sewer department is diverse without any discrimination.... I have issues outside of SAWS where there is no regulation, no framework, and no possibility of success.

We love SAWS and appreciate, deeply, the opportunities we've been given to collaborate. We look forward to more. We appreciate that they have been mindful of our women-owned status and we appreciate that we've been selected on work for our merit as well as our certifications.

I think the program does an excellent job.

They [SAWS] gave us tools to understand the program better.

They [SAWS staff] have been supportive and helpful from the beginning.

For many M/WBEs, the program and certification were critical to obtaining business.

We would not be in business if we were not an M/WBE. No one would let us in the market...the manufacturers and the contractors.

We wouldn't be in business today [without this program].

Access to companies with diversity spend requirements across the board, including state agencies and corporations.

[The program has] given us more opportunities to showcase our capabilities and to team with SAWS staff and sharpen our skills.

Has opened doors for business opportunities.

Has provided some exposure and workshops that are helpful.

I believe it may have help[ed] extend my contract.

I see more RFPs [as a result of the program].

[the program helped us] learn how to market [our] experience with city, state and federal certifications which gained us prime and sub-contracting opportunities.

Over the last 25 years of business our SMWVB certifications have been instrumental in our growth as a firm and provided opportunities for us.

Prime contractors are compelled to include me as a WBE/SBE in order to earn enough points in the RFP process.

Provided opportunities as subconsultants and prime firms to procure SAWS' projects. In particular, [we] appreciate the fact that SAWS gives MBE credits even if we are a prime. Not all utilities we work with do that.

We have been working with one the primes on a couple of projects and have enjoyed the relationship and doing work for SAWS.

We have had more success with our minority status with SAWS.

We have opportunities to bid on projects that non-SMWVB Prime Contractors would not be able to bid on without employing subcontractors.

Some respondents noted there are limits to the program's efficacy.

It has helped me get some business but I am also competing with pass through entities [or front firms] that should not be allowed to be considered.

It [the program] helps by encouraging large firms to take us as a subconsultant. But often the prime does not give us work related to the design services.

A few M/WBEs reported that the program had not yet provided much benefit.

I have not seen any benefits as of yet.

I am not really sure it has [helped]. It seems to be a 'check the box' item that no entity genuinely cares about. The points typically allocated for scoring usually don't come into play in the final awarding of a contract. Plus, there are firms both local and out of the city who seem to find a 'work around' this requirement.

b. Obtaining prime contracts with SAWS

Some M/WBE respondents reported they did not have equal access to SAWS contracts.

Other contractors get contracts with SAWS that we feel are less qualified and less experience. SAWS will not divulge bidders bid results.

When reviewing scoring published for identical firms, we receive lower scoring for qualitative reasons.

Nobody has declared to us that we are losing contracting opportunities based on race or gender. We have tried for over 10 years to secure work with SAWS.

Not having fair and equal access to opportunities [available to MBEs].

The perception of some respondents is that larger, non-minority firms are favored.

Don't have as much experience as the larger non-minority firms. This is always a barrier with SAWS.

The barriers are not so much race or gender but size and location.

Since we're a small company there is always a question about our bench strength and the depth of our experience.

This has more to do with firm size. Larger firms can afford to have individuals devoted to meeting with agencies to obtain information that we do not have time to get.

Too small. Not given the same opportunities.

Contract size was reported to be an impediment. Unbundling projects would help some businesses to be awarded SAWS work.

It would help if SAWS had smaller job packages for new start up company's [sic].

My business would benefit more with smaller projects so I would be able to grow.

Obtaining small business contracts under \$20,000.00.

SAWS [should] purchas[e] construction equipment and attachments separately, not bundled.

The opportunity to get smaller jobs and less waiting time to be paid [would be helpful].

I would distribute large contracts to smaller individual minority opportunities.

Reserve some small projects to test out consultants who may have done work with SAWS but have not done work with other SAWS departments or specialties.

Advertising single scope projects, for example, open cut only vs. open cut and pipe bursting [Cured in Place Pipe], or pipe bursting only vs. combination of both.

Some suggested increased program oversight was necessary to ensure compliance.

Compliance checks [should be conducted]. Remove low bid and look at performance. Follow-up with checking to see if MBE goals are met; if not, award [to] contractors that are meeting the goals.

Enforce those goals!

Onsite check of companies that have been given annual contracts or subcontracts to make sure they are not just pass-through entities.

When asked about services that would help their businesses, many suggested that more assistance with bonding, financing and insurance would increase access to opportunities.

Again, it comes down to money. You need money to help develop all aspects of your company. Even when recommendations are given by larger companies, capital is needed to put those ideas into action.

Better access to operating capital.

Working capital in order to invest in my employees and increase my bonding capacity.

Better credit programs.

Bonding working capital equipment.

Funding and programs for non-construction small businesses.

Get more jobs within my field and loan assistance.

More financial and more support from those in the industry.

More guidance with loan or mentor program.

[Help with] accounting and financial planning.

Those that have participated in these types of services have generally found them to be helpful.

[These types of programs] have been good experience in general.

[These types of programs] have been very helpful and informative.

They [sic] are good programs offered by the local chamber, Bexar County and SCTRCA [South Central Texas Regional Certification Agency].

Partnering and access to a mentor-protégé program were welcomed as important approaches to increase opportunities. Some firms reported good experiences with local initiatives.

The [City of San Antonio's] mentor protégé program was excellent in terms of the educational bootcamp, and networking with other "protégés"; however, the

relationship to mentor companies was non-existent (one said, "there's nothing in it for us"). Plus, the city didn't educate its own staff about the program, so it didn't make a darned bit of difference if you had "graduated" from the program. There were no points awarded or other incentives in the bidding process, and 100% of the city employees I talked with had never heard of it. Also [I] participated in the UTSA [University of Texas San Antonio] SBDC [Small Business Development Center] via classes and getting certification registration assistance from their staff. ALL experiences with SBDC were top-notch and extremely helpful.

I have a SBDC [Small Business Development Center] mentor and SCORE mentor, both are very helpful.

Completed SATX [City of San Antonio, Texas] Mentor Protégé program, Frost Bank business series, have received support from SBDC [Small Business Development Center] and PTAC [Procurement Technical Assistance Center] Advisors.

I learn new skills when joint venturing with other firms. I just started a mentor-protégé program with the city of San Antonio.

As a small business, our outreach for a mentor has never been answered. On the other hand, we sub-contract to several small businesses and mentor a small, women-owned small [sic] business through the COSA [City of San Antonio].

Several firms suggested that SAWS create their own mentor-protégé program and do more to promote JV partnerships.

Creating their own mentor-protégé program. Creating a point system which would provide prime contractor mentors incentives for sub-contracting to their small business protégé.

SAWS could ... promote JVs with small companies as the lead and large business as the mentor.

Please encourage and award points for JVs between large primes and M/WBEs on professional service solicitations. We have teamed and sub-contracted on multiple contracts.

H. Conclusion

Overall, SAWS' SMWVB program has been beneficial to certified M/WBEs. Firms have received work as a direct result of the program, and most stated that without the implementation of goals, their opportunities would be greatly diminished or non-existent. Many M/WBEs would like to move into the role of prime consultant or contractors, but experience requirements and a perceived mindset of favoring large firms were reported to be barriers. Prime vendors found meeting the goals challenging, but most were able to include minority and woman businesses on their contracts. However, both M/WBEs and non-M/WBEs thought the agency could do more to alleviate obstacles and to help M/WBEs do business with SAWS. Suggested improvements include providing more notification about contract opportunities; reducing contract size and insurance requirements; increased monitoring of prime vendors' program commitments; and providing additional technical assistance and supportive services, including a formal mentor-protégé program.

IV. UTILIZATION, AVAILABILITY AND DISPARITY ANALYSES FOR THE SAN ANTONIO WATER SYSTEM

A. Contract Data Overview

This Study examined San Antonio Water System (“SAWS”) contract dollars for projects for the fiscal years 2017 through 2019. The Final Contract Data File (“FCDF”) contained 681 prime contracts and 962 subcontracts.¹³⁸ The net dollar value of contracts to primes and subcontractors was \$1784,672,709.

Tables 4-1 and 4-2 present the distribution of these contracts and net dollar value of contracts between prime and subcontractors.

Table 4-1: Final Contract Data File Contracts between Prime Contracts and Subcontracts

Business Type	Total Contracts	Share of Total Contracts
Prime Contracts	681	41.4%
Subcontracts	962	58.6%
TOTAL	1,643	100.0%

Source: CHA analysis of SAWS data

138. North American Industry Classification System (“NAICS”) codes of prime contractors and subcontractors were missing so these were assigned by CHA.

Table 4-2: Final Contract Data File Net Dollars Value of Contracts between Prime Contracts and Subcontracts

Business Type	Total Contract Dollars	Share of Total Contract Dollars
Prime Contracts	\$592,463,104	75.5%
Subcontracts	\$192,209,605	24.5%
TOTAL	\$784,672,709	100.0%

Source: CHA analysis of SAWS data

The FCDF was used to determine the geographic and product markets for the analyses, and to estimate the utilization of Minority and Woman Business Enterprises (“M/WBEs”) on the SAWS’ contracts. We then used the FCDF, in combination with other databases (as described below), to calculate M/WBE unweighted and weighted availability in the agency’s marketplace.

The balance of this Chapter presents detailed information on:

- The Final Contract Data File
- SAWS’ geographic market
- The utilization analysis
- The availability analysis
- The disparity analysis

B. Analysis of SAWS’ Contracts

As discussed in Chapter II, the federal courts¹³⁹ require that a government agency narrowly tailor its race- and gender-conscious contracting program elements to its geographic market area. This element of the analysis must be empirically established.¹⁴⁰ The accepted approach is to analyze those detailed industries, as

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

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

defined by 6-digit NAICS codes,¹⁴¹ that make up at least 75% of the prime contract and subcontract payments for the study period.¹⁴² Table 4-3 identifies all of the NAICS codes in the Final Contract Data File. In Section B-1, we identify the agency’s geographic market. This step of identifying the geographic market imposes a spatial constraint on this data set. Having established the geographic market, in Section B-2 we constrain the Final Contract Data File by this spatial parameter. Table 4-4 presents the resulting data.

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

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237110	Water and Sewer Line and Related Structures Construction	57.7%	57.7%
541330	Engineering Services	7.7%	65.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.3%	69.8%
237310	Highway, Street, and Bridge Construction	3.1%	72.9%
238910	Site Preparation Contractors	1.6%	74.5%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	1.3%	75.8%
237990	Other Heavy and Civil Engineering Construction	1.3%	77.1%
541512	Computer Systems Design Services	1.2%	78.3%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	1.2%	79.5%
423840	Industrial Supplies Merchant Wholesalers	1.1%	80.7%
541990	All Other Professional, Scientific, and Technical Services	1.1%	81.7%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	82.8%
562111	Solid Waste Collection	0.9%	83.8%
327332	Concrete Pipe Manufacturing	0.9%	84.7%
541380	Testing Laboratories	0.8%	85.4%

141. www.census.gov/eos/www/naics.

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

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
327320	Ready-Mix Concrete Manufacturing	0.7%	86.1%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.6%	86.8%
541519	Other Computer Related Services	0.6%	87.4%
238990	All Other Specialty Trade Contractors	0.6%	87.9%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.5%	88.5%
541110	Offices of Lawyers	0.5%	89.0%
423390	Other Construction Material Merchant Wholesalers	0.5%	89.5%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.5%	90.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.5%	90.4%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.5%	90.9%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.4%	91.3%
561320	Temporary Help Services	0.4%	91.6%
236210	Industrial Building Construction	0.4%	92.0%
238160	Roofing Contractors	0.4%	92.4%
484110	General Freight Trucking, Local	0.3%	92.7%
541511	Custom Computer Programming Services	0.3%	93.0%
332216	Saw Blade and Handtool Manufacturing	0.3%	93.4%
511210	Software Publishers	0.3%	93.7%
423440	Other Commercial Equipment Merchant Wholesalers	0.3%	94.0%
331511	Iron Foundries	0.3%	94.3%
327390	Other Concrete Product Manufacturing	0.3%	94.5%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.3%	94.8%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.2%	95.0%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541370	Surveying and Mapping (except Geophysical) Services	0.2%	95.3%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0.2%	95.5%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0.2%	95.7%
325180	Other Basic Inorganic Chemical Manufacturing	0.2%	95.9%
811198	All Other Automotive Repair and Maintenance	0.2%	96.1%
561990	All Other Support Services	0.2%	96.3%
561720	Janitorial Services	0.2%	96.4%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.2%	96.6%
334111	Electronic Computer Manufacturing	0.2%	96.8%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.2%	96.9%
541310	Architectural Services	0.1%	97.1%
238320	Painting and Wall Covering Contractors	0.1%	97.2%
541620	Environmental Consulting Services	0.1%	97.3%
561730	Landscaping Services	0.1%	97.4%
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	0.1%	97.6%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.1%	97.7%
541820	Public Relations Agencies	0.1%	97.8%
238290	Other Building Equipment Contractors	0.1%	97.9%
541611	Administrative Management and General Management Consulting Services	0.1%	98.0%
562991	Septic Tank and Related Services	0.1%	98.1%
812332	Industrial Launderers	0.1%	98.1%
332911	Industrial Valve Manufacturing	0.1%	98.2%
238120	Structural Steel and Precast Concrete Contractors	0.1%	98.3%
321113	Sawmills	0.1%	98.4%
562910	Remediation Services	0.1%	98.5%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
332996	Fabricated Pipe and Pipe Fitting Manufacturing	0.1%	98.5%
541870	Advertising Material Distribution Services	0.1%	98.6%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.1%	98.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%	98.7%
424340	Footwear Merchant Wholesalers	0.1%	98.8%
541211	Offices of Certified Public Accountants	0.1%	98.8%
334210	Telephone Apparatus Manufacturing	0.1%	98.9%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.05%	98.9%
238350	Finish Carpentry Contractors	0.04%	99.0%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.04%	99.0%
523930	Investment Advice	0.04%	99.1%
326299	All Other Rubber Product Manufacturing	0.04%	99.1%
238110	Poured Concrete Foundation and Structure Contractors	0.04%	99.2%
238140	Masonry Contractors	0.03%	99.2%
541513	Computer Facilities Management Services	0.03%	99.2%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.03%	99.3%
325120	Industrial Gas Manufacturing	0.03%	99.3%
561612	Security Guards and Patrol Services	0.03%	99.3%
332312	Fabricated Structural Metal Manufacturing	0.03%	99.3%
424120	Stationery and Office Supplies Merchant Wholesalers	0.03%	99.4%
541613	Marketing Consulting Services	0.03%	99.4%
337214	Office Furniture (except Wood) Manufacturing	0.03%	99.4%
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	0.03%	99.5%
561621	Security Systems Services (except Locksmiths)	0.03%	99.5%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
532420	Office Machinery and Equipment Rental and Leasing	0.02%	99.5%
327310	Cement Manufacturing	0.02%	99.5%
326122	Plastics Pipe and Pipe Fitting Manufacturing	0.02%	99.6%
813910	Business Associations	0.02%	99.6%
541430	Graphic Design Services	0.02%	99.6%
332321	Metal Window and Door Manufacturing	0.02%	99.6%
517312	Wireless Telecommunications Carriers (except Satellite)	0.02%	99.6%
923110	Administration of Education Programs	0.02%	99.7%
444220	Nursery, Garden Center, and Farm Supply Stores	0.02%	99.7%
238390	Other Building Finishing Contractors	0.02%	99.7%
531390	Other Activities Related to Real Estate	0.02%	99.7%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.02%	99.7%
424490	Other Grocery and Related Products Merchant Wholesalers	0.01%	99.7%
114210	Hunting and Trapping	0.01%	99.8%
493190	Other Warehousing and Storage	0.01%	99.8%
332510	Hardware Manufacturing	0.01%	99.8%
511110	Newspaper Publishers	0.01%	99.8%
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.01%	99.8%
926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	0.01%	99.8%
518210	Data Processing, Hosting, and Related Services	0.01%	99.8%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.01%	99.8%
315210	Cut and Sew Apparel Contractors	0.01%	99.8%
312113	Ice Manufacturing	0.01%	99.9%
541612	Human Resources Consulting Services	0.01%	99.9%
541320	Landscape Architectural Services	0.01%	99.9%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
561499	All Other Business Support Services	0.01%	99.9%
327331	Concrete Block and Brick Manufacturing	0.01%	99.9%
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	0.01%	99.9%
721110	Hotels (except Casino Hotels) and Motels	0.01%	99.9%
561613	Armored Car Services	0.01%	99.9%
423420	Office Equipment Merchant Wholesalers	0.01%	99.9%
441110	New Car Dealers	0.01%	99.9%
811219	Other Electronic and Precision Equipment Repair and Maintenance	0.01%	99.9%
334519	Other Measuring and Controlling Device Manufacturing	0.01%	99.9%
423710	Hardware Merchant Wholesalers	0.01%	99.9%
327410	Lime Manufacturing	0.01%	99.9%
561710	Exterminating and Pest Control Services	0.01%	99.95%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.01%	99.96%
541690	Other Scientific and Technical Consulting Services	0.005%	99.96%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0.004%	99.97%
444190	Other Building Material Dealers	0.004%	99.97%
531130	Lessors of Miniwarehouses and Self-Storage Units	0.004%	99.98%
541850	Outdoor Advertising	0.003%	99.98%
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	0.003%	99.98%
237130	Power and Communication Line and Related Structures Construction	0.003%	99.98%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.002%	99.99%
561622	Locksmiths	0.002%	99.99%
541922	Commercial Photography	0.002%	99.99%
561440	Collection Agencies	0.002%	99.99%
517311	Wired Telecommunications Carriers	0.002%	99.99%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541191	Title Abstract and Settlement Offices	0.002%	99.996%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.001%	99.997%
454110	Electronic Shopping and Mail-Order Houses	0.001%	99.998%
423220	Home Furnishing Merchant Wholesalers	0.0005%	99.999%
524291	Claims Adjusting	0.0004%	99.999%
339950	Sign Manufacturing	0.0002%	99.9997%
611699	All Other Miscellaneous Schools and Instruction	0.0002%	99.9998%
561920	Convention and Trade Show Organizers	0.0001%	99.9999%
332313	Plate Work Manufacturing	0.0001%	100.0000%
TOTAL		100.0%	

Source: CHA analysis of SAWS data

1. SAWS' Geographic Market

To determine the geographic market area, we applied the standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the FCD¹⁴³F. Location was determined by ZIP code and aggregated into counties as the geographic unit.

Contracts awarded to firms located in the State of Texas accounted for 88.9% of all dollars during the study period. Six counties within the state - Bexar, Comal, and Guadalupe Counties in the San Antonio Metropolitan Area and Travis, Hays, and Williamson Counties in the Austin Metropolitan Area captured 80.3% of the state dollars and 75.6% of the entire FCDF. Therefore, these six counties were determined to be the geographic market for SAWS, and we limited our analysis to firms in these counties.

2. SAWS' Utilization of M/WBEs in its Geographic and Product Market

Having determined SAWS' geographic market area, the next step was to determine the dollar value of SAWS' utilization of M/WBEs¹⁴⁴ as measured by net payments to prime firms and subcontractors and disaggregated by race and gender. As discussed in Chapter II, a defensible disparity study must determine empirically the industries that comprise the agency's product or industry mar-

143. *National Disparity Study Guidelines*, p. 29.

ket. The accepted approach is to analyze those detailed industries, as defined by 6-digit NAICS codes that make up at least 75% of the prime contract and subcontract payments for the study period.¹⁴⁵

Tables 4-4 through 4-6 present data on the utilization of contract dollars.

Table 4-4 presents data on the contract dollar values for each NAICS code within SAWS' geographic and product market along, with each NAICS code's share of the total dollars spent by SAWS. The contract dollar shares in Table 4-4 are equivalent to the weight of spending in each NAICS code. These data were used to calculate weighted availability from unweighted availability, as discussed below. Table 4-5 presents the distribution of each NAICS code's contract dollars across the relevant demographic groups. Table 4-6 indicates each demographic group's share of all spending in the particular NAICS code

Table 4-4: NAICS Code Distribution of Contract Dollars in the Constrained Product Market

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
237110	Water and Sewer Line and Related Structures Construction	\$345,634,752.00	58.2%
541330	Engineering Services	\$50,432,692.00	8.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$33,609,420.00	5.7%
237310	Highway, Street, and Bridge Construction	\$23,038,504.00	3.9%
238910	Site Preparation Contractors	\$10,851,703.00	1.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$9,220,605.00	1.6%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$8,826,644.00	1.5%
562111	Solid Waste Collection	\$6,896,528.00	1.2%
327332	Concrete Pipe Manufacturing	\$6,881,025.50	1.2%
541990	All Other Professional, Scientific, and Technical Services	\$6,339,010.50	1.1%
327320	Ready-Mix Concrete Manufacturing	\$5,420,618.50	0.9%

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

145. *National Disparity Study Guidelines*, p. 29.

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
423840	Industrial Supplies Merchant Wholesalers	\$4,745,716.00	0.8%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$4,716,799.00	0.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$4,465,137.00	0.8%
237990	Other Heavy and Civil Engineering Construction	\$4,090,146.25	0.7%
423390	Other Construction Material Merchant Wholesalers	\$3,920,662.75	0.7%
541380	Testing Laboratories	\$3,786,316.25	0.6%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$3,472,914.00	0.6%
541512	Computer Systems Design Services	\$3,058,534.50	0.5%
238990	All Other Specialty Trade Contractors	\$3,034,320.50	0.5%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$2,960,460.75	0.5%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$2,929,948.75	0.5%
541110	Offices of Lawyers	\$2,827,852.00	0.5%
484110	General Freight Trucking, Local	\$2,739,273.50	0.5%
541519	Other Computer Related Services	\$2,647,532.25	0.4%
238160	Roofing Contractors	\$2,575,219.00	0.4%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$2,494,959.25	0.4%
423440	Other Commercial Equipment Merchant Wholesalers	\$2,350,620.75	0.4%
561320	Temporary Help Services	\$2,136,264.75	0.4%
331511	Iron Foundries	\$2,093,804.12	0.4%
541370	Surveying and Mapping (except Geophysical) Services	\$1,795,960.12	0.3%
541511	Custom Computer Programming Services	\$1,468,265.12	0.2%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$1,347,111.88	0.2%
334111	Electronic Computer Manufacturing	\$1,289,975.25	0.2%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$1,234,570.00	0.2%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$1,190,574.62	0.2%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
541310	Architectural Services	\$1,140,140.38	0.2%
332216	Saw Blade and Handtool Manufacturing	\$979,475.81	0.2%
561720	Janitorial Services	\$814,900.00	0.1%
561990	All Other Support Services	\$797,283.69	0.1%
424690	Other Chemical and Allied Products Merchant Wholesalers	\$762,182.81	0.1%
812332	Industrial Launderers	\$702,470.62	0.1%
541820	Public Relations Agencies	\$601,591.25	0.1%
541620	Environmental Consulting Services	\$592,056.75	0.1%
332911	Industrial Valve Manufacturing	\$573,140.38	0.1%
541870	Advertising Material Distribution Services	\$535,847.75	0.1%
325180	Other Basic Inorganic Chemical Manufacturing	\$533,007.25	0.1%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	\$486,339.31	0.1%
238320	Painting and Wall Covering Contractors	\$467,015.25	0.1%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$464,269.44	0.1%
424340	Footwear Merchant Wholesalers	\$437,944.66	0.1%
334210	Telephone Apparatus Manufacturing	\$419,142.59	0.1%
332996	Fabricated Pipe and Pipe Fitting Manufacturing	\$381,174.16	0.1%
238350	Finish Carpentry Contractors	\$349,182.25	0.1%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	\$348,904.34	0.1%
561730	Landscaping Services	\$343,174.72	0.1%
326299	All Other Rubber Product Manufacturing	\$300,697.84	0.1%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$253,233.78	0.04%
561612	Security Guards and Patrol Services	\$247,228.27	0.04%
541613	Marketing Consulting Services	\$226,768.20	0.04%
337214	Office Furniture (except Wood) Manufacturing	\$220,867.08	0.04%
238120	Structural Steel and Precast Concrete Contractors	\$218,879.09	0.04%
332312	Fabricated Structural Metal Manufacturing	\$204,045.00	0.03%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
561621	Security Systems Services (except Locksmiths)	\$203,816.64	0.03%
532420	Office Machinery and Equipment Rental and Leasing	\$188,134.34	0.03%
541211	Offices of Certified Public Accountants	\$187,404.59	0.03%
813910	Business Associations	\$183,750.00	0.03%
238140	Masonry Contractors	\$175,489.00	0.03%
541430	Graphic Design Services	\$161,144.70	0.03%
332321	Metal Window and Door Manufacturing	\$153,429.30	0.03%
326122	Plastics Pipe and Pipe Fitting Manufacturing	\$136,643.36	0.02%
541513	Computer Facilities Management Services	\$129,833.59	0.02%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$125,167.56	0.02%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$120,352.73	0.02%
238290	Other Building Equipment Contractors	\$111,366.49	0.02%
238390	Other Building Finishing Contractors	\$110,687.03	0.02%
444220	Nursery, Garden Center, and Farm Supply Stores	\$109,219.33	0.02%
493190	Other Warehousing and Storage	\$105,682.85	0.02%
511110	Newspaper Publishers	\$99,891.00	0.02%
238110	Poured Concrete Foundation and Structure Contractors	\$92,881.63	0.02%
511210	Software Publishers	\$86,294.20	0.01%
315210	Cut and Sew Apparel Contractors	\$71,238.39	0.01%
312113	Ice Manufacturing	\$68,268.03	0.01%
541612	Human Resources Consulting Services	\$67,595.40	0.01%
541320	Landscape Architectural Services	\$66,121.00	0.01%
561499	All Other Business Support Services	\$65,375.63	0.01%
327331	Concrete Block and Brick Manufacturing	\$63,215.00	0.01%
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	\$61,278.30	0.01%
721110	Hotels (except Casino Hotels) and Motels	\$60,750.00	0.01%
541611	Administrative Management and General Management Consulting Services	\$56,525.00	0.01%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
423420	Office Equipment Merchant Wholesalers	\$54,601.29	0.01%
424490	Other Grocery and Related Products Merchant Wholesalers	\$51,567.75	0.01%
423710	Hardware Merchant Wholesalers	\$43,562.17	0.01%
327410	Lime Manufacturing	\$42,434.61	0.01%
424120	Stationery and Office Supplies Merchant Wholesalers	\$38,282.46	0.01%
444190	Other Building Material Dealers	\$31,185.67	0.01%
531130	Lessors of Miniwarehouses and Self-Storage Units	\$30,299.16	0.01%
541850	Outdoor Advertising	\$24,200.00	0.004%
237130	Power and Communication Line and Related Structures Construction	\$22,004.62	0.004%
441110	New Car Dealers	\$20,471.19	0.003%
238190	Other Foundation, Structure, and Building Exterior Contractors	\$18,092.00	0.003%
561622	Locksmiths	\$15,521.76	0.003%
541922	Commercial Photography	\$15,045.00	0.003%
518210	Data Processing, Hosting, and Related Services	\$15,026.65	0.003%
562991	Septic Tank and Related Services	\$14,980.68	0.003%
541191	Title Abstract and Settlement Offices	\$13,160.00	0.002%
327390	Other Concrete Product Manufacturing	\$12,770.00	0.002%
541690	Other Scientific and Technical Consulting Services	\$11,761.20	0.002%
423220	Home Furnishing Merchant Wholesalers	\$3,654.75	0.001%
339950	Sign Manufacturing	\$1,887.89	0.0003%
611699	All Other Miscellaneous Schools and Instruction	\$1,280.00	0.0002%
561920	Convention and Trade Show Organizers	\$941.25	0.0002%
TOTAL		\$593,469,688.72	100.0%

Source: CHA analysis of SAWS data

Table 4-5: Distribution of Contract Dollars by Race and Gender (total dollars)

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
237110	Water and Sewer Line and Related Structures Construction	\$0	\$103,758,398	\$0	\$0	\$103,758,398	\$189,956	\$103,948,354	\$241,686,383	\$345,634,737
237130	Power and Communication Line and Related Structures Construction	\$0	\$0	\$0	\$0	\$0	\$22,005	\$22,005	\$0	\$22,005
237310	Highway, Street, and Bridge Construction	\$180,917	\$7,816,134	\$0	\$0	\$7,997,051	\$386,064	\$8,383,116	\$14,655,388	\$23,038,504
237990	Other Heavy and Civil Engineering Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,090,146	\$4,090,146
238110	Poured Concrete Foundation and Structure Contractors	\$0	\$80,882	\$0	\$0	\$80,882	\$0	\$80,882	\$12,000	\$92,882
238120	Structural Steel and Precast Concrete Contractors	\$0	\$133,552	\$0	\$0	\$133,552	\$0	\$133,552	\$85,327	\$218,879
238140	Masonry Contractors	\$0	\$0	\$0	\$0	\$0	\$175,489	\$175,489	\$0	\$175,489
238160	Roofing Contractors	\$0	\$2,555,364	\$0	\$0	\$2,555,364	\$0	\$2,555,364	\$19,855	\$2,575,219
238190	Other Foundation, Structure, and Building Exterior Contractors	\$0	\$0	\$0	\$0	\$0	\$18,092	\$18,092	\$0	\$18,092

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
238210	Electrical Contractors and Other Wiring Installation Contractors	\$0	\$94,476	\$163,603	\$0	\$258,079	\$2,535,942	\$2,794,021	\$30,815,398	\$33,609,419
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$0	\$435,336	\$0	\$0	\$435,336	\$51,612	\$486,948	\$2,985,966	\$3,472,914
238290	Other Building Equipment Contractors	\$0	\$111,366	\$0	\$0	\$111,366	\$0	\$111,366	\$0	\$111,366
238320	Painting and Wall Covering Contractors	\$0	\$467,015	\$0	\$0	\$467,015	\$0	\$467,015	\$0	\$467,015
238350	Finish Carpentry Contractors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$349,182	\$349,182
238390	Other Building Finishing Contractors	\$0	\$107,082	\$0	\$0	\$107,082	\$3,605	\$110,687	\$0	\$110,687
238910	Site Preparation Contractors	\$0	\$3,105,186	\$0	\$0	\$3,105,186	\$2,696,462	\$5,801,648	\$5,050,055	\$10,851,703
238990	All Other Specialty Trade Contractors	\$0	\$2,224,277	\$0	\$0	\$2,224,277	\$52,387	\$2,276,664	\$757,656	\$3,034,320
312113	Ice Manufacturing	\$0	\$68,268	\$0	\$0	\$68,268	\$0	\$68,268	\$0	\$68,268
315210	Cut and Sew Apparel Contractors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71,238	\$71,238
325180	Other Basic Inorganic Chemical Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$533,007	\$533,007

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$61,278	\$61,278
326122	Plastics Pipe and Pipe Fitting Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$136,643	\$136,643
326299	All Other Rubber Product Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,698	\$300,698
327320	Ready-Mix Concrete Manufacturing	\$0	\$1,606,073	\$0	\$0	\$1,606,073	\$1,420,814	\$3,026,887	\$2,393,731	\$5,420,618
327331	Concrete Block and Brick Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$63,215	\$63,215
327332	Concrete Pipe Manufacturing	\$0	\$614,447	\$0	\$0	\$614,447	\$3,017,951	\$3,632,398	\$3,248,628	\$6,881,026
327390	Other Concrete Product Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,770	\$12,770
327410	Lime Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,435	\$42,435
331110	Iron and Steel Mills and Ferroalloy Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120,353	\$120,353
331511	Iron Foundries	\$0	\$0	\$0	\$49,970	\$49,970	\$0	\$49,970	\$2,043,834	\$2,093,804
332216	Saw Blade and Handtool Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$979,476	\$979,476

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
332312	Fabricated Structural Metal Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$204,045	\$204,045
332321	Metal Window and Door Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$153,429	\$153,429
332911	Industrial Valve Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$573,140	\$573,140
332996	Fabricated Pipe and Pipe Fitting Manufacturing	\$0	\$0	\$0	\$0	\$0	\$10,590	\$10,589	\$370,585	\$381,174
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	\$0	\$2,208	\$0	\$0	\$2,208	\$28,000	\$30,207	\$456,132	\$486,339
334111	Electronic Computer Manufacturing	\$1,289,975	\$0	\$0	\$0	\$1,289,975	\$0	\$1,289,975	\$0	\$1,289,975
334210	Telephone Apparatus Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$419,143	\$419,143
337214	Office Furniture (except Wood) Manufacturing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$220,867	\$220,867
339950	Sign Manufacturing	\$0	\$0	\$0	\$0	\$0	\$1,888	\$1,888	\$0	\$1,888
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$17,072	\$17,072	\$2,912,877	\$2,929,949
423220	Home Furnishing Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$3,655	\$3,655	\$0	\$3,655

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	\$0	\$1,475,656	\$0	\$0	\$1,475,656	\$0	\$1,475,655	\$1,019,304	\$2,494,959
423390	Other Construction Material Merchant Wholesalers	\$0	\$1,729,375	\$0	\$0	\$1,729,375	\$0	\$1,729,375	\$2,191,288	\$3,920,663
423420	Office Equipment Merchant Wholesalers	\$54,601	\$0	\$0	\$0	\$54,601	\$0	\$54,601	\$0	\$54,601
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$412,222	\$412,223	\$778,352	\$1,190,575
423440	Other Commercial Equipment Merchant Wholesalers	\$0	\$2,350,621	\$0	\$0	\$2,350,621	\$0	\$2,350,621	\$0	\$2,350,621
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$4,428,606	\$4,428,606	\$288,193	\$4,716,799
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$0	\$5,156,688	\$0	\$0	\$5,156,688	\$325,035	\$5,481,723	\$3,738,882	\$9,220,605
423710	Hardware Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,562	\$43,562

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$0	\$1,173,798	\$0	\$0	\$1,173,798	\$0	\$1,173,799	\$173,313	\$1,347,112
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,234,570	\$1,234,570
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$0	\$411,948	\$0	\$0	\$411,948	\$0	\$411,948	\$4,053,189	\$4,465,137
423840	Industrial Supplies Merchant Wholesalers	\$0	\$4,219,642	\$0	\$0	\$4,219,642	\$0	\$4,219,642	\$526,074	\$4,745,716
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,168	\$125,168
424120	Stationery and Office Supplies Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,282	\$38,282
424340	Footwear Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$236,996	\$236,997	\$200,948	\$437,945

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
424490	Other Grocery and Related Products Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$51,568	\$51,568
424690	Other Chemical and Allied Products Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$762,183	\$762,183
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$0	\$0	\$0	\$0	\$0	\$2,618,166	\$2,618,166	\$342,295	\$2,960,461
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$348,904	\$348,904
441110	New Car Dealers	\$0	\$20,471	\$0	\$0	\$20,471	\$0	\$20,471	\$0	\$20,471
444190	Other Building Material Dealers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,186	\$31,186
444220	Nursery, Garden Center, and Farm Supply Stores	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$109,219	\$109,219
484110	General Freight Trucking, Local	\$0	\$2,661,867	\$0	\$0	\$2,661,867	\$77,406	\$2,739,273	\$0	\$2,739,273
484220	Specialized Freight (except Used Goods) Trucking, Local	\$0	\$464,269	\$0	\$0	\$464,269	\$0	\$464,269	\$0	\$464,269
493190	Other Warehousing and Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,683	\$105,683

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
511110	Newspaper Publishers	\$0	\$0	\$0	\$0	\$0	\$99,891	\$99,891	\$0	\$99,891
511210	Software Publishers	\$0	\$0	\$4,480	\$0	\$4,480	\$0	\$4,480	\$81,814	\$86,294
518210	Data Processing, Hosting, and Related Services	\$0	\$0	\$0	\$0	\$0	\$15,027	\$15,027	\$0	\$15,027
531130	Lessors of Miniwarehouses and Self-Storage Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,299	\$30,299
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$253,234	\$253,234
532420	Office Machinery and Equipment Rental and Leasing	\$188,134	\$0	\$0	\$0	\$188,134	\$0	\$188,134	\$0	\$188,134
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$492	\$748,181	\$0	\$0	\$748,672	\$0	\$748,672	\$8,077,972	\$8,826,644
541110	Offices of Lawyers	\$0	\$743,435	\$0	\$46,237	\$789,672	\$234,716	\$1,024,388	\$1,803,464	\$2,827,852
541191	Title Abstract and Settlement Offices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,160	\$13,160
541211	Offices of Certified Public Accountants	\$0	\$116,177	\$0	\$0	\$116,177	\$71,228	\$187,405	\$0	\$187,405
541310	Architectural Services	\$0	\$1,140,140	\$0	\$0	\$1,140,140	\$0	\$1,140,140	\$0	\$1,140,140

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
541320	Landscape Architectural Services	\$0	\$43,925	\$0	\$0	\$43,925	\$22,196	\$66,121	\$0	\$66,121
541330	Engineering Services	\$0	\$7,242,570	\$6,039,472	\$0	\$13,282,041	\$8,026,074	\$21,308,115	\$29,124,577	\$50,432,692
541370	Surveying and Mapping (except Geophysical) Services	\$0	\$442,403	\$298,700	\$0	\$741,103	\$693,099	\$1,434,201	\$361,759	\$1,795,960
541380	Testing Laboratories	\$0	\$3,053,442	\$223,259	\$0	\$3,276,701	\$7,138	\$3,283,839	\$502,477	\$3,786,316
541430	Graphic Design Services	\$0	\$94,210	\$0	\$0	\$94,210	\$16,515	\$110,725	\$50,420	\$161,145
541511	Custom Computer Programming Services	\$0	\$0	\$1,423,538	\$0	\$1,423,538	\$0	\$1,423,538	\$44,727	\$1,468,265
541512	Computer Systems Design Services	\$0	\$1,495,944	\$233,831	\$0	\$1,729,775	\$1,085,818	\$2,815,593	\$242,941	\$3,058,534
541513	Computer Facilities Management Services	\$15,625	\$0	\$0	\$0	\$15,625	\$0	\$15,625	\$114,209	\$129,834
541519	Other Computer Related Services	\$0	\$0	\$2,487,292	\$0	\$2,487,292	\$160,240	\$2,647,532	\$0	\$2,647,532
541611	Administrative Management and General Management Consulting Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,525	\$56,525
541612	Human Resources Consulting Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$67,595	\$67,595
541613	Marketing Consulting Services	\$0	\$0	\$0	\$0	\$0	\$226,768	\$226,768	\$0	\$226,768

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
541620	Environmental Consulting Services	\$0	\$6,596	\$0	\$0	\$6,596	\$428,558	\$435,155	\$156,902	\$592,057
541690	Other Scientific and Technical Consulting Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,761	\$11,761
541820	Public Relations Agencies	\$0	\$275,529	\$0	\$0	\$275,529	\$7,162	\$282,691	\$318,900	\$601,591
541850	Outdoor Advertising	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,200	\$24,200
541870	Advertising Material Distribution Services	\$0	\$0	\$0	\$0	\$0	\$535,848	\$535,848	\$0	\$535,848
541922	Commercial Photography	\$15,045	\$0	\$0	\$0	\$15,045	\$0	\$15,045	\$0	\$15,045
541990	All Other Professional, Scientific, and Technical Services	\$276,374	\$15,882	\$0	\$0	\$292,257	\$0	\$292,256	\$6,046,754	\$6,339,010
561320	Temporary Help Services	\$37,170	\$823,750	\$0	\$0	\$860,920	\$1,058,660	\$1,919,580	\$216,685	\$2,136,265
561499	All Other Business Support Services	\$0	\$0	\$65,376	\$0	\$65,376	\$0	\$65,376	\$0	\$65,376
561612	Security Guards and Patrol Services	\$247,228	\$0	\$0	\$0	\$247,228	\$0	\$247,228	\$0	\$247,228
561621	Security Systems Services (except Locksmiths)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$203,817	\$203,817
561622	Locksmiths	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,522	\$15,522
561720	Janitorial Services	\$8,700	\$0	\$806,200	\$0	\$814,900	\$0	\$814,900	\$0	\$814,900
561730	Landscaping Services	\$0	\$171,787	\$0	\$0	\$171,787	\$2,865	\$174,652	\$168,523	\$343,175

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
561920	Convention and Trade Show Organizers	\$0	\$0	\$0	\$0	\$0	\$941	\$941	\$0	\$941
561990	All Other Support Services	\$0	\$631,902	\$0	\$0	\$631,902	\$7,350	\$639,252	\$158,032	\$797,284
562111	Solid Waste Collection	\$0	\$627,995	\$0	\$0	\$627,995	\$0	\$627,996	\$6,268,532	\$6,896,528
562991	Septic Tank and Related Services	\$0	\$10,126	\$0	\$0	\$10,126	\$0	\$10,127	\$4,854	\$14,981
611699	All Other Miscellaneous Schools and Instruction	\$0	\$1,280	\$0	\$0	\$1,280	\$0	\$1,280	\$0	\$1,280
721110	Hotels (except Casino Hotels) and Motels	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,750	\$60,750
812332	Industrial Launderers	\$0	\$702,471	\$0	\$0	\$702,471	\$0	\$702,471	\$0	\$702,471
813910	Business Associations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$183,750	\$183,750
Total		\$2,314,262	\$161,232,145	\$11,745,751	\$96,208	\$175,388,366	\$31,430,109	\$206,818,475	\$386,651,197	\$593,469,672^a

a. This figure is analogous to the value in Table 4-4 of \$593,469,688.72. The difference of \$16.72 amounts to a difference of 0.000003%. The reason for this difference is we use two different computer programs to process the data. One program rounds the value and then truncates the cents; the other does not. For example, \$22.42 becomes \$22 with the subsequent loss of \$0.42.

Source: CHA analysis of SAWS data

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

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
237110	Water and Sewer Line and Related Structures Construction	0.00%	30.00%	0.00%	0.00%	30.00%	0.10%	30.10%	69.90%	100.00%
237130	Power and Communication Line and Related Structures Construction	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
237310	Highway, Street, and Bridge Construction	0.80%	33.90%	0.00%	0.00%	34.70%	1.70%	36.40%	63.60%	100.00%
237990	Other Heavy and Civil Engineering Construction	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238110	Poured Concrete Foundation and Structure Contractors	0.00%	87.10%	0.00%	0.00%	87.10%	0.00%	87.10%	12.90%	100.00%
238120	Structural Steel and Precast Concrete Contractors	0.00%	61.00%	0.00%	0.00%	61.00%	0.00%	61.00%	39.00%	100.00%
238140	Masonry Contractors	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
238160	Roofing Contractors	0.00%	99.20%	0.00%	0.00%	99.20%	0.00%	99.20%	0.80%	100.00%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.00%	0.30%	0.50%	0.00%	0.80%	7.50%	8.30%	91.70%	100.00%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.00%	12.50%	0.00%	0.00%	12.50%	1.50%	14.00%	86.00%	100.00%
238290	Other Building Equipment Contractors	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
238320	Painting and Wall Covering Contractors	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
238350	Finish Carpentry Contractors	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238390	Other Building Finishing Contractors	0.00%	96.70%	0.00%	0.00%	96.70%	3.30%	100.00%	0.00%	100.00%
238910	Site Preparation Contractors	0.00%	28.60%	0.00%	0.00%	28.60%	24.80%	53.50%	46.50%	100.00%
238990	All Other Specialty Trade Contractors	0.00%	73.30%	0.00%	0.00%	73.30%	1.70%	75.00%	25.00%	100.00%
312113	Ice Manufacturing	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
315210	Cut and Sew Apparel Contractors	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
325180	Other Basic Inorganic Chemical Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
326122	Plastics Pipe and Pipe Fitting Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
326299	All Other Rubber Product Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
327320	Ready-Mix Concrete Manufacturing	0.00%	29.60%	0.00%	0.00%	29.60%	26.20%	55.80%	44.20%	100.00%
327331	Concrete Block and Brick Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
327332	Concrete Pipe Manufacturing	0.00%	8.90%	0.00%	0.00%	8.90%	43.90%	52.80%	47.20%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
327390	Other Concrete Product Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
327410	Lime Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
331511	Iron Foundries	0.00%	0.00%	0.00%	2.40%	2.40%	0.00%	2.40%	97.60%	100.00%
332216	Saw Blade and Handtool Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
332312	Fabricated Structural Metal Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
332321	Metal Window and Door Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
332911	Industrial Valve Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
332996	Fabricated Pipe and Pipe Fitting Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	2.80%	2.80%	97.20%	100.00%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.00%	0.50%	0.00%	0.00%	0.50%	5.80%	6.20%	93.80%	100.00%
334111	Electronic Computer Manufacturing	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
334210	Telephone Apparatus Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
337214	Office Furniture (except Wood) Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
339950	Sign Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.60%	0.60%	99.40%	100.00%
423220	Home Furnishing Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.00%	59.10%	0.00%	0.00%	59.10%	0.00%	59.10%	40.90%	100.00%
423390	Other Construction Material Merchant Wholesalers	0.00%	44.10%	0.00%	0.00%	44.10%	0.00%	44.10%	55.90%	100.00%
423420	Office Equipment Merchant Wholesalers	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	34.60%	34.60%	65.40%	100.00%
423440	Other Commercial Equipment Merchant Wholesalers	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	93.90%	93.90%	6.10%	100.00%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.00%	55.90%	0.00%	0.00%	55.90%	3.50%	59.50%	40.50%	100.00%
423710	Hardware Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.00%	87.10%	0.00%	0.00%	87.10%	0.00%	87.10%	12.90%	100.00%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.00%	9.20%	0.00%	0.00%	9.20%	0.00%	9.20%	90.80%	100.00%
423840	Industrial Supplies Merchant Wholesalers	0.00%	88.90%	0.00%	0.00%	88.90%	0.00%	88.90%	11.10%	100.00%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
424120	Stationery and Office Supplies Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
424340	Footwear Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	54.10%	54.10%	45.90%	100.00%
424490	Other Grocery and Related Products Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.00%	0.00%	0.00%	0.00%	0.00%	88.40%	88.40%	11.60%	100.00%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
441110	New Car Dealers	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
444190	Other Building Material Dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
444220	Nursery, Garden Center, and Farm Supply Stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
484110	General Freight Trucking, Local	0.00%	97.20%	0.00%	0.00%	97.20%	2.80%	100.00%	0.00%	100.00%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
493190	Other Warehousing and Storage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
511110	Newspaper Publishers	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
511210	Software Publishers	0.00%	0.00%	5.20%	0.00%	5.20%	0.00%	5.20%	94.80%	100.00%
518210	Data Processing, Hosting, and Related Services	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
531130	Lessors of Miniwarehouses and Self-Storage Units	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
532420	Office Machinery and Equipment Rental and Leasing	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.00%	8.50%	0.00%	0.00%	8.50%	0.00%	8.50%	91.50%	100.00%
541110	Offices of Lawyers	0.00%	26.30%	0.00%	1.60%	27.90%	8.30%	36.20%	63.80%	100.00%
541191	Title Abstract and Settlement Offices	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541211	Offices of Certified Public Accountants	0.00%	62.00%	0.00%	0.00%	62.00%	38.00%	100.00%	0.00%	100.00%
541310	Architectural Services	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
541320	Landscape Architectural Services	0.00%	66.40%	0.00%	0.00%	66.40%	33.60%	100.00%	0.00%	100.00%
541330	Engineering Services	0.00%	14.40%	12.00%	0.00%	26.30%	15.90%	42.30%	57.70%	100.00%
541370	Surveying and Mapping (except Geophysical) Services	0.00%	24.60%	16.60%	0.00%	41.30%	38.60%	79.90%	20.10%	100.00%
541380	Testing Laboratories	0.00%	80.60%	5.90%	0.00%	86.50%	0.20%	86.70%	13.30%	100.00%
541430	Graphic Design Services	0.00%	58.50%	0.00%	0.00%	58.50%	10.20%	68.70%	31.30%	100.00%
541511	Custom Computer Programming Services	0.00%	0.00%	97.00%	0.00%	97.00%	0.00%	97.00%	3.00%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
541512	Computer Systems Design Services	0.00%	48.90%	7.60%	0.00%	56.60%	35.50%	92.10%	7.90%	100.00%
541513	Computer Facilities Management Services	12.00%	0.00%	0.00%	0.00%	12.00%	0.00%	12.00%	88.00%	100.00%
541519	Other Computer Related Services	0.00%	0.00%	93.90%	0.00%	93.90%	6.10%	100.00%	0.00%	100.00%
541611	Administrative Management and General Management Consulting Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541612	Human Resources Consulting Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541613	Marketing Consulting Services	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
541620	Environmental Consulting Services	0.00%	1.10%	0.00%	0.00%	1.10%	72.40%	73.50%	26.50%	100.00%
541690	Other Scientific and Technical Consulting Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541820	Public Relations Agencies	0.00%	45.80%	0.00%	0.00%	45.80%	1.20%	47.00%	53.00%	100.00%
541850	Outdoor Advertising	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541870	Advertising Material Distribution Services	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
541922	Commercial Photography	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
541990	All Other Professional, Scientific, and Technical Services	4.40%	0.30%	0.00%	0.00%	4.60%	0.00%	4.60%	95.40%	100.00%
561320	Temporary Help Services	1.70%	38.60%	0.00%	0.00%	40.30%	49.60%	89.90%	10.10%	100.00%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
561499	All Other Business Support Services	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
561612	Security Guards and Patrol Services	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
561621	Security Systems Services (except Locksmiths)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561622	Locksmiths	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561720	Janitorial Services	1.10%	0.00%	98.90%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
561730	Landscaping Services	0.00%	50.10%	0.00%	0.00%	50.10%	0.80%	50.90%	49.10%	100.00%
561920	Convention and Trade Show Organizers	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
561990	All Other Support Services	0.00%	79.30%	0.00%	0.00%	79.30%	0.90%	80.20%	19.80%	100.00%
562111	Solid Waste Collection	0.00%	9.10%	0.00%	0.00%	9.10%	0.00%	9.10%	90.90%	100.00%
562991	Septic Tank and Related Services	0.00%	67.60%	0.00%	0.00%	67.60%	0.00%	67.60%	32.40%	100.00%
611699	All Other Miscellaneous Schools and Instruction	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
721110	Hotels (except Casino Hotels) and Motels	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
812332	Industrial Launderers	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
813910	Business Associations	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Total		0.40%	27.20%	2.00%	0.00%	29.60%	5.30%	34.80%	65.20%	100.00%

Source: CHA analysis of SAWS data

3. Availability of M/WBEs in SAWS' Geographic and Product Market

Estimates of the availability of M/WBEs in SAWS' geographic market are a critical component of SAWS' compliance with its constitutional obligations. As discussed in Chapter II, the courts require that the availability estimates reflect the number of "ready, willing and able" firms that can perform on specific types of work involved in the recipient's prime contracts and associated sub-contracts. Availability estimates are also crucial for the agency to determine its annual M/WBE goal and to set narrowly tailored contract goals.

To examine whether M/WBEs are receiving full opportunities on SAWS contracts, these narrowly tailored availability estimates were compared to the utilization percentage of dollars received by M/WBEs.

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

- The Final Contract Data File (described in Section B of this Chapter).
- The Master M/WBE Directory compiled by CHA.
- Dun & Bradstreet/Hoovers Database downloaded from the companies' website.

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

We utilized the Texas UCP, SCTRCA Certified Directory, the HUB report, the City of Austin Certified Directory and the SAWS contract datafile to compile the Master Directory. We limited the firms we used in our analysis to those operating within the agency's product market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company for minority- and woman-owned firms and non-M/WBEs. Hoovers maintains a comprehensive, extensive and regularly updated listing of all firms conducting business. The database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information. We purchased the information from Hoovers for the firms in the NAICS codes located in SAWS' market area in order to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identifies a firm as being minority-owned.¹⁴⁶ However, the company does keep detailed information on ethnicity (*i.e.*, is the minority firm owner Black, Hispanic, Asian, or Native

American). We obtained this additional information from Hoovers by special request.

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

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

Tables 4-7 through 4-9 present data on:

- The unweighted availability percentages by race and gender and by NAICS codes for SAWS' product market. These results can be used by the agency as the starting point to set narrowly tailored contract-specific goals;
- The weights used to adjust the unweighted numbers;¹⁴⁷ and
- The final estimates of the weighted averages of the individual 6-digit level availability estimates in SAWS' market area.

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

Second, weighting also reflects the importance of the availability of a demographic group in a particular NAICS code, that is, how important that NAICS code is to SAWS' contracting patterns. For example, in a hypothetical NAICS Code 123456, the total available firms are 100 and 60 of these firms are M/WBEs; hence, M/WBE availability would be 60%. However, if the agency only spends only one percent of its contract dollars in this NAICS code, then this

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

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

high availability would be offset by the low level of spending in that NAICS code. In contrast, if SAWS spent 25% of its contract dollars in NAICS Code 123456, then the same availability would carry a greater weight.

To calculate the weighted availability for each NAICS code, we first determined the unweighted availability for each demographic group in each NAICS code (presented in Table 4-7). In the previous example, the unweighted availability for M/WBEs in NAICS Code 123456 is 60%. We then multiplied the unweighted availability by the share of SAWS spending in that NAICS code presented in Table 4-8. This share is the *weight*. Using the previous example where SAWS spending in NAICS Code 123456 was one percent, the component of M/WBE weighted availability for NAICS Code 123456 would be 0.006: 60% multiplied by one percent.

We performed this calculation for each NAICS code and then summed all of the individual components for each demographic group to determine the weighted availability for that group. The results of this calculation are presented in Table 4-9.

Table 4-7: Unweighted M/WBE Availability for SAWS Contracts

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE	Total
237110	0.6%	10.5%	0.8%	0.0%	12.0%	9.2%	21.2%	78.8%	100.0%
237130	1.6%	19.7%	0.0%	0.0%	21.3%	9.8%	31.1%	68.9%	100.0%
237310	3.3%	15.6%	0.9%	0.5%	20.3%	10.0%	30.2%	69.8%	100.0%
237990	1.3%	10.0%	1.3%	0.7%	13.3%	7.3%	20.7%	79.3%	100.0%
238110	1.3%	6.2%	0.2%	0.1%	7.8%	2.5%	10.3%	89.7%	100.0%
238120	0.0%	17.0%	4.3%	2.1%	23.4%	19.1%	42.6%	57.4%	100.0%
238140	1.5%	5.6%	0.2%	0.0%	7.4%	7.1%	14.5%	85.5%	100.0%
238160	0.2%	2.6%	0.1%	0.1%	2.9%	2.7%	5.6%	94.4%	100.0%
238190	2.9%	10.0%	1.4%	1.4%	15.7%	4.3%	20.0%	80.0%	100.0%
238210	0.7%	5.7%	1.0%	0.3%	7.7%	5.1%	12.8%	87.2%	100.0%
238220	0.4%	3.3%	0.4%	0.1%	4.1%	2.9%	7.0%	93.0%	100.0%
238290	1.4%	5.7%	0.0%	1.4%	8.6%	10.0%	18.6%	81.4%	100.0%
238320	0.3%	4.0%	0.1%	0.3%	4.8%	3.1%	7.8%	92.2%	100.0%
238350	1.5%	3.0%	0.4%	0.4%	5.2%	3.4%	8.6%	91.4%	100.0%
238390	0.3%	3.0%	0.7%	0.3%	4.4%	6.7%	11.1%	88.9%	100.0%
238910	1.9%	9.4%	0.7%	0.0%	12.0%	9.6%	21.6%	78.4%	100.0%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE	Total
238990	0.4%	3.2%	0.2%	0.1%	3.8%	3.5%	7.3%	92.7%	100.0%
312113	0.0%	20.0%	0.0%	0.0%	20.0%	0.0%	20.0%	80.0%	100.0%
315210	0.0%	20.0%	0.0%	0.0%	20.0%	0.0%	20.0%	80.0%	100.0%
325180	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%	3.8%	96.2%	100.0%
326113	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	25.0%	75.0%	100.0%
326122	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	25.0%	75.0%	100.0%
326299	0.0%	4.5%	0.0%	0.0%	4.5%	13.6%	18.2%	81.8%	100.0%
327320	1.3%	5.1%	0.0%	0.0%	6.4%	3.8%	10.3%	89.7%	100.0%
327331	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327332	0.0%	20.0%	0.0%	0.0%	20.0%	30.0%	50.0%	50.0%	100.0%
327390	0.0%	5.3%	0.0%	5.3%	10.5%	5.3%	15.8%	84.2%	100.0%
327410	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
331110	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.6%	94.4%	100.0%
331511	0.0%	14.3%	0.0%	14.3%	28.6%	0.0%	28.6%	71.4%	100.0%
332216	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332312	0.0%	8.5%	5.1%	0.0%	13.6%	5.1%	18.6%	81.4%	100.0%
332321	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	7.1%	92.9%	100.0%
332911	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	12.5%	87.5%	100.0%
332996	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	30.0%	70.0%	100.0%
332999	0.0%	4.9%	2.4%	0.0%	7.3%	17.1%	24.4%	75.6%	100.0%
334111	1.0%	0.0%	0.0%	2.1%	3.1%	2.1%	5.2%	94.8%	100.0%
334210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
337214	25.0%	0.0%	0.0%	0.0%	25.0%	0.0%	25.0%	75.0%	100.0%
339950	0.0%	2.7%	0.6%	0.0%	3.3%	9.9%	13.3%	86.7%	100.0%
423120	0.0%	0.9%	0.0%	0.0%	0.9%	4.3%	5.2%	94.8%	100.0%
423220	0.0%	0.8%	0.0%	0.0%	0.8%	10.7%	11.5%	88.5%	100.0%
423320	0.4%	2.6%	0.4%	0.4%	3.7%	4.4%	8.1%	91.9%	100.0%
423390	1.7%	6.8%	0.0%	1.7%	10.2%	10.2%	20.3%	79.7%	100.0%
423420	1.2%	3.5%	0.0%	0.0%	4.7%	11.6%	16.3%	83.7%	100.0%
423430	1.3%	3.5%	2.6%	0.0%	7.5%	5.7%	13.2%	86.8%	100.0%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE	Total
423440	0.2%	0.7%	0.2%	0.3%	1.3%	2.3%	3.7%	96.3%	100.0%
423510	0.0%	4.3%	0.5%	0.5%	5.4%	5.9%	11.4%	88.6%	100.0%
423610	0.3%	7.7%	0.9%	1.1%	10.0%	8.6%	18.6%	81.4%	100.0%
423710	1.1%	4.5%	0.0%	0.0%	5.7%	9.1%	14.8%	85.2%	100.0%
423720	0.0%	4.3%	1.4%	0.7%	6.5%	10.8%	17.3%	82.7%	100.0%
423730	0.0%	1.8%	0.9%	0.9%	3.6%	10.9%	14.5%	85.5%	100.0%
423830	0.4%	3.5%	0.6%	0.4%	4.8%	6.9%	11.7%	88.3%	100.0%
423840	1.9%	3.8%	0.0%	0.8%	6.5%	9.5%	16.0%	84.0%	100.0%
423990	0.4%	0.7%	0.1%	0.2%	1.4%	5.3%	6.7%	93.3%	100.0%
424120	8.3%	6.6%	0.0%	0.0%	14.9%	14.0%	28.9%	71.1%	100.0%
424340	0.0%	0.7%	0.0%	0.0%	0.7%	5.9%	6.6%	93.4%	100.0%
424490	0.7%	1.5%	0.2%	0.0%	2.4%	5.6%	8.0%	92.0%	100.0%
424690	0.0%	2.3%	1.2%	0.6%	4.1%	8.2%	12.3%	87.7%	100.0%
424720	1.3%	1.3%	0.6%	0.0%	3.2%	3.9%	7.1%	92.9%	100.0%
424930	0.0%	0.0%	0.0%	0.0%	0.0%	19.1%	19.1%	80.9%	100.0%
441110	0.4%	1.3%	0.0%	0.0%	1.8%	1.3%	3.1%	96.9%	100.0%
444190	0.3%	0.6%	0.3%	0.3%	1.5%	3.6%	5.1%	94.9%	100.0%
444220	0.0%	2.4%	0.0%	0.0%	2.4%	6.7%	9.1%	90.9%	100.0%
484110	1.0%	2.2%	0.1%	0.0%	3.3%	1.6%	4.8%	95.2%	100.0%
484220	6.7%	20.8%	0.7%	0.0%	28.2%	12.1%	40.3%	59.7%	100.0%
493190	0.6%	0.6%	0.0%	0.0%	1.3%	7.1%	8.4%	91.6%	100.0%
511110	0.8%	1.6%	0.0%	0.8%	3.1%	10.2%	13.3%	86.7%	100.0%
511210	1.3%	1.6%	1.5%	0.0%	4.4%	3.5%	7.9%	92.1%	100.0%
518210	1.6%	3.8%	1.8%	0.2%	7.5%	8.1%	15.5%	84.5%	100.0%
531130	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%	96.5%	100.0%
532412	1.2%	3.6%	0.0%	2.4%	7.2%	6.0%	13.3%	86.7%	100.0%
532420	7.1%	0.0%	0.0%	0.0%	7.1%	7.1%	14.3%	85.7%	100.0%
532490	0.1%	0.2%	0.1%	0.0%	0.3%	1.8%	2.1%	97.9%	100.0%
541110	0.2%	0.8%	0.1%	0.0%	1.1%	4.3%	5.5%	94.5%	100.0%
541191	0.5%	0.5%	0.5%	0.0%	1.6%	6.3%	7.8%	92.2%	100.0%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE	Total
541211	0.6%	1.6%	0.1%	0.1%	2.4%	6.5%	8.9%	91.1%	100.0%
541310	1.6%	6.9%	1.4%	0.2%	10.1%	12.4%	22.5%	77.5%	100.0%
541320	0.1%	2.6%	0.4%	0.0%	3.1%	4.5%	7.5%	92.5%	100.0%
541330	1.8%	10.0%	4.3%	0.6%	16.7%	8.5%	25.2%	74.8%	100.0%
541370	2.0%	12.0%	1.4%	0.9%	16.3%	18.3%	34.7%	65.3%	100.0%
541380	0.8%	2.3%	2.3%	0.0%	5.3%	4.0%	9.3%	90.7%	100.0%
541430	1.2%	2.4%	0.6%	0.0%	4.2%	18.4%	22.6%	77.4%	100.0%
541511	1.2%	1.8%	3.2%	0.2%	6.4%	4.4%	10.8%	89.2%	100.0%
541512	2.3%	5.3%	2.6%	0.4%	10.7%	5.8%	16.5%	83.5%	100.0%
541513	15.2%	6.1%	12.1%	18.2%	51.5%	12.1%	63.6%	36.4%	100.0%
541519	9.3%	6.7%	12.0%	2.7%	30.7%	13.3%	44.0%	56.0%	100.0%
541611	2.5%	2.5%	0.7%	0.2%	5.9%	7.0%	12.9%	87.1%	100.0%
541612	6.8%	2.9%	1.4%	0.0%	11.1%	15.4%	26.5%	73.5%	100.0%
541613	0.9%	1.0%	0.3%	0.0%	2.3%	5.4%	7.7%	92.3%	100.0%
541620	1.9%	5.0%	1.6%	0.5%	9.0%	18.9%	27.9%	72.1%	100.0%
541690	3.5%	4.2%	1.5%	0.6%	9.8%	8.4%	18.2%	81.8%	100.0%
541820	3.1%	3.8%	0.5%	0.0%	7.4%	16.2%	23.6%	76.4%	100.0%
541850	0.0%	1.9%	0.0%	0.0%	1.9%	1.9%	3.8%	96.2%	100.0%
541870	0.0%	14.3%	0.0%	0.0%	14.3%	21.4%	35.7%	64.3%	100.0%
541922	2.4%	1.5%	0.3%	0.0%	4.2%	9.5%	13.6%	86.4%	100.0%
541990	0.4%	0.8%	0.2%	0.0%	1.5%	5.4%	6.8%	93.2%	100.0%
561320	2.1%	8.9%	3.5%	0.2%	14.7%	10.7%	25.5%	74.5%	100.0%
561499	0.3%	0.5%	0.2%	0.0%	1.0%	1.6%	2.6%	97.4%	100.0%
561612	4.2%	3.9%	0.5%	0.5%	9.1%	5.5%	14.6%	85.4%	100.0%
561621	2.5%	4.4%	0.6%	0.6%	8.2%	4.0%	12.2%	87.8%	100.0%
561622	0.0%	1.0%	0.0%	0.0%	1.0%	2.1%	3.1%	96.9%	100.0%
561720	2.4%	4.3%	0.6%	0.1%	7.5%	5.8%	13.2%	86.8%	100.0%
561730	1.4%	2.3%	0.1%	0.0%	3.9%	3.3%	7.1%	92.9%	100.0%
561920	0.0%	3.9%	0.0%	0.0%	3.9%	9.8%	13.7%	86.3%	100.0%
561990	1.0%	1.4%	0.4%	0.1%	2.8%	3.2%	6.0%	94.0%	100.0%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE	Total
562111	3.2%	19.4%	0.0%	0.0%	22.6%	16.1%	38.7%	61.3%	100.0%
562991	0.6%	4.7%	0.0%	0.0%	5.3%	5.9%	11.2%	88.8%	100.0%
611699	0.9%	0.8%	0.2%	0.1%	2.0%	7.9%	9.9%	90.1%	100.0%
721110	0.1%	0.2%	1.9%	0.1%	2.2%	2.0%	4.2%	95.8%	100.0%
812332	0.0%	11.1%	0.0%	0.0%	11.1%	11.1%	22.2%	77.8%	100.0%
813910	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%	99.8%	100.0%
Total	1.0%	2.5%	0.7%	0.1%	4.3%	4.8%	9.1%	90.9%	100.0%

Source: CHA analysis of SAWS data; Hoovers; CHA Master Directory

Table 4-8: Distribution of SAWS Spending by NAICS Code (the Weights)

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
237110	Water and Sewer Line and Related Structures Construction	58.2%
237130	Power and Communication Line and Related Structures Construction	0.004%
237310	Highway, Street, and Bridge Construction	3.9%
237990	Other Heavy and Civil Engineering Construction	0.7%
238110	Poured Concrete Foundation and Structure Contractors	0.02%
238120	Structural Steel and Precast Concrete Contractors	0.04%
238140	Masonry Contractors	0.03%
238160	Roofing Contractors	0.4%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.003%
238210	Electrical Contractors and Other Wiring Installation Contractors	5.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.6%
238290	Other Building Equipment Contractors	0.02%
238320	Painting and Wall Covering Contractors	0.1%
238350	Finish Carpentry Contractors	0.1%
238390	Other Building Finishing Contractors	0.02%
238910	Site Preparation Contractors	1.8%
238990	All Other Specialty Trade Contractors	0.5%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
312113	Ice Manufacturing	0.01%
315210	Cut and Sew Apparel Contractors	0.01%
325180	Other Basic Inorganic Chemical Manufacturing	0.1%
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	0.01%
326122	Plastics Pipe and Pipe Fitting Manufacturing	0.02%
326299	All Other Rubber Product Manufacturing	0.1%
327320	Ready-Mix Concrete Manufacturing	0.9%
327331	Concrete Block and Brick Manufacturing	0.01%
327332	Concrete Pipe Manufacturing	1.2%
327390	Other Concrete Product Manufacturing	0.002%
327410	Lime Manufacturing	0.01%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0.02%
331511	Iron Foundries	0.4%
332216	Saw Blade and Handtool Manufacturing	0.2%
332312	Fabricated Structural Metal Manufacturing	0.03%
332321	Metal Window and Door Manufacturing	0.03%
332911	Industrial Valve Manufacturing	0.1%
332996	Fabricated Pipe and Pipe Fitting Manufacturing	0.1%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.1%
334111	Electronic Computer Manufacturing	0.2%
334210	Telephone Apparatus Manufacturing	0.1%
337214	Office Furniture (except Wood) Manufacturing	0.04%
339950	Sign Manufacturing	0.0003%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.5%
423220	Home Furnishing Merchant Wholesalers	0.001%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.4%
423390	Other Construction Material Merchant Wholesalers	0.7%
423420	Office Equipment Merchant Wholesalers	0.01%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.2%
423440	Other Commercial Equipment Merchant Wholesalers	0.4%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	1.6%
423710	Hardware Merchant Wholesalers	0.01%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.2%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.2%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.8%
423840	Industrial Supplies Merchant Wholesalers	0.8%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.02%
424120	Stationery and Office Supplies Merchant Wholesalers	0.01%
424340	Footwear Merchant Wholesalers	0.1%
424490	Other Grocery and Related Products Merchant Wholesalers	0.01%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.1%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.5%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.1%
441110	New Car Dealers	0.003%
444190	Other Building Material Dealers	0.01%
444220	Nursery, Garden Center, and Farm Supply Stores	0.02%
484110	General Freight Trucking, Local	0.5%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%
493190	Other Warehousing and Storage	0.02%
511110	Newspaper Publishers	0.02%
511210	Software Publishers	0.01%
518210	Data Processing, Hosting, and Related Services	0.003%

San Antonio Water System Minority and Woman-Owned Business Enterprise Disparity Study 2021

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
531130	Lessors of Miniwarehouses and Self-Storage Units	0.01%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.04%
532420	Office Machinery and Equipment Rental and Leasing	0.03%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	1.5%
541110	Offices of Lawyers	0.5%
541191	Title Abstract and Settlement Offices	0.002%
541211	Offices of Certified Public Accountants	0.03%
541310	Architectural Services	0.2%
541320	Landscape Architectural Services	0.01%
541330	Engineering Services	8.5%
541370	Surveying and Mapping (except Geophysical) Services	0.3%
541380	Testing Laboratories	0.6%
541430	Graphic Design Services	0.03%
541511	Custom Computer Programming Services	0.2%
541512	Computer Systems Design Services	0.5%
541513	Computer Facilities Management Services	0.02%
541519	Other Computer Related Services	0.4%
541611	Administrative Management and General Management Consulting Services	0.01%
541612	Human Resources Consulting Services	0.01%
541613	Marketing Consulting Services	0.04%
541620	Environmental Consulting Services	0.1%
541690	Other Scientific and Technical Consulting Services	0.002%
541820	Public Relations Agencies	0.1%
541850	Outdoor Advertising	0.004%
541870	Advertising Material Distribution Services	0.1%
541922	Commercial Photography	0.003%
541990	All Other Professional, Scientific, and Technical Services	1.1%
561320	Temporary Help Services	0.4%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
561499	All Other Business Support Services	0.01%
561612	Security Guards and Patrol Services	0.04%
561621	Security Systems Services (except Locksmiths)	0.03%
561622	Locksmiths	0.003%
561720	Janitorial Services	0.1%
561730	Landscaping Services	0.1%
561920	Convention and Trade Show Organizers	0.0002%
561990	All Other Support Services	0.1%
562111	Solid Waste Collection	1.2%
562991	Septic Tank and Related Services	0.003%
611699	All Other Miscellaneous Schools and Instruction	0.0002%
721110	Hotels (except Casino Hotels) and Motels	0.01%
812332	Industrial Launderers	0.1%
813910	Business Associations	0.03%
Total		100.0%

Source: CHA analysis of SAWS data

We next determined the aggregated availability of M/WBEs, weighted by SAWS' spending in its geographic and industry markets, to be 20.4% for the agency's contracts. Table 4-9 presents the total weighted availability data for each of the racial and gender categories. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.

The overall, weighted M/WBE availability results can be used by SAWS to determine its overall, aspirational goal.

Table 4-9: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	MBE	White Women	M/WBE	Non-M/WBE	Total
0.97%	9.32%	1.14%	0.23%	11.65%	8.73%	20.38%	79.62%	100.0%

Source: CHA analysis of SAWS data; Hoovers; CHA Master Directory

4. Disparity Analysis of M/WBEs for SAWS' Contracts

As required by strict scrutiny, we next calculated disparity ratios for each demographic group, comparing the group's total utilization compared to its total weighted availability.

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

$$DR = U/WA$$

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

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to measure a result's significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80% of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.¹⁴⁸ Second, statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone.¹⁴⁹ A more in-depth discussion of statistical significance is provided in Appendix C.

Substantive and Statistical Significance

- ‡ Connotes these values are substantively significant. Courts have ruled the disparity ratio less or equal to 80 percent represent disparities that are substantively significant. (See Footnote 148 for more information.)
- * Connotes these values are statistically significant at the 0.05 level. (See Appendix C for more information.)
- ** Connotes these values are statistically significant at the 0.01 level. (See Appendix C for more information.)
- *** Connotes these values are statistically significant at the 0.001 level. (See Appendix C for more information.)

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

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

Table 4-10 presents the calculated disparity ratios for each demographic group. The disparity ratios for three groups – Blacks, Native Americans, and White Women – are substantively significant. The disparity ratios for four groups – Hispanics, MBEs, M/WBEs, and non-M/WBEs – are statistically significant at the 0.005 level.

Table 4-10: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	MBE	White Woman	M/WBE	Non-M/WBE
Disparity Ratio	40.3%‡	291.5%***	174.2%	7.2%‡	253.7%***	60.7%‡	171.0%***	81.8%***

Source: CHA analysis of SAWS data

**** Indicates statistical significance at the 0.001 level*

‡ Indicates substantive significance

It is the standard CHA practice to explore any M/WBE disparity ratio that exceeds 100 percent. This is to ensure that an abnormal pattern of M/WBE concentration does not account for disparity ratios greater than 100 percent, thereby leading to the unwarranted conclusion that race-conscious remedies are no longer needed to redress discrimination against a particular socially disadvantaged group. It is possible that a group’s disparity ratio that is larger than 100 percent might be the result of the success of a few firms and not indicative of the experiences of the broad set of firms in that group. This exploration entails further examination of any NAICS codes where:

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

Given these criteria, we examined more closely the utilization of Hispanic-owned (in three specific codes) and Asian-owned firms (in one specific code).

- 237110 - Water and Sewer Line and Related Structures Construction
- 237310 - Highway, Street, and Bridge Construction
- 541330 - Engineering Services

Table 4-11: Targeted NAICS Codes for Further Exploration

NAICS	NAICS Code Description	Weight	Hispanic Utilization	Asian Utilization
237110	Water and Sewer Line and Related Structures Construction	58.2%	30.0%	0.0%
541330	Engineering Services	8.5%	14.4%	12.0%
237310	Highway, Street, and Bridge Construction	3.9%	33.9%	0.0%

CHA analysis of SAWS data

In Tables 4-12 through 4-15, we explore the levels of firm concentration by examining several factors:

- The NAICS code’s share of all SAWS spending with Hispanic or Asian firms compared to the NAICS code’s share of SAWS spending received by non-M/WBEs. This provides a sense of how important spending in the NAICS code was to a group’s overall revenue compared to that same metric for non-M/WBEs. In a world where race and gender did not affect outcomes, the share would be similar.
- The number of Hispanic or Asian firms that received contracts compared to the number of non-M/WBE firms that received contracts, and how the monies received were distributed among these firms. These two metrics provide a sense of whether or not there were fewer M/WBE firms receiving contracts compared to non-M/WBE firms and how concentrated the M/WBE contract dollars were concentrated compared to the level of concentration among non-M/WBE firms. If either was the case, then the high level of utilization by a M/WBE group resulted from the success of a few M/WBEs and was not distributed across the entire spectrum of M/WBE firms. This would be in contrast to a wider distribution of success among non-M/WBE firms.
- We examined the issue of firm concentration using four metrics: 1) the share of contract dollars received by the largest firm in the group; 2) the share of contract dollars received by the second largest firm in the group; 3) the share of contract dollars received by the third largest firm in the group; and 4) the combined share of contract dollars received by these top three largest firm in the group. These metrics provide a yardstick with which the M/WBE concentration can be compared to the non-M/WBE concentration. If the M/WBE concentration exceeds the non-M/WBE concentration, this reflects that a small number of M/WBE firms are benefiting from the execution of SAWS’ SMWVB program.

Table 4-12 presents these data for Hispanic firms and non-M/WBE firms in NAICS Code 237110 - Water and Sewer Line and Related Structures Construc-

tion. We find that this code contains a slightly larger share of all dollars received by Hispanic firms compared to the code’s share of all non-M/WBE dollars. There is a sharp difference in the degree of concentration: only the top three Hispanic firms received 66.3 percent of all Hispanic dollars in this code; in contrast, the top three non-M/WBE firms only received 44.4 percent of all non-M/WBE monies in this code.

Table 4-12: Comparing Concentration of Dollars for Hispanic and Non-M/WBE Outcomes for NAICS Code 237110 Water and Sewer Line and Related Structures Construction

(NAICS Code Weight of All SAWS Spending: 58.2%)

	Hispanic	Non-M/WBE
NAICS code share of all spending	64.4%	62.5%
Number of firms	16	32
Share of group spending in NAICS code by the largest firm	28.4%	15.4%
Share of group spending in NAICS code by the second largest firm	21.3%	15.1%
Share of group spending in NAICS code by the third largest firm	16.6%	14.0%
Share of group spending in NAICS code by the three largest firms	66.3%	44.4%
Share of group spending in NAICS code by the remaining firms	33.7%	55.6%

CHA analysis of SAWS data

Table 4-13 presents these data for Hispanic firms and non-M/WBE firms in NAICS Code 237310 - Highway, Street, and Bridge Construction. We find that this code contains a smaller share of all dollars received by Hispanic firms compared to the code’s share of all non-M/WBE dollars. The concentration of contract dollars among the top three firms is similar for both groups; this is because the large share received by the largest non-M/WBE firms is offset by the share of contract dollars received by the second and third largest Hispanic firms.

Table 4-13: Comparing Hispanic and Non-M/WBE Outcomes for NAICS Code 237310 Highway, Street, and Bridge Construction (NAICS Code Weight of All SAWS Spending: 3.9%)

	Hispanic	Non-M/WBE
NAICS code share of all spending	4.8%	3.8%
Number of firms	9	11
Share of group spending in NAICS code by the largest firm	66.0%	89.8%
Share of group spending in NAICS code by the second largest firm	13.5%	2.7%
Share of group spending in NAICS code by the third largest firm	11.0%	2.0%
Share of group spending in NAICS code by the three largest firms	90.5%	94.5%
Share of group spending in NAICS code by the remaining firms	9.5%	5.5%

CHA analysis of SAWS data

Table 4-14 presents these data for Hispanic firms and non-M/WBE firms in NAICS Code 541330 – Engineering Services. We find that this code contains a slightly smaller share of all dollars received by Hispanic firms compared to the code’s share of all non-M/WBE dollars. However, the degree of concentration – measured by the share of all Hispanic dollars in this code received by the top three firms is larger than the corresponding figure for the top three non-M/WBE firms (49.9% and 36.5%, respectively).

Table 4-14: Comparing Hispanic and Non-M/WBE Outcomes for NAICS Code 541330 Engineering Services (NAICS Code Weight of All SAWS Spending: 8.5%)

	Hispanic	Non-M/WBE
NAICS code share of all spending	4.5%	7.5%
Number of firms	25	43
Share of group spending in NAICS code by the largest firm	18.7%	13.0%
Share of group spending in NAICS code by the second largest firm	16.0%	12.3%
Share of group spending in NAICS code by the third largest firm	15.2%	11.2%
Share of group spending in NAICS code by the three largest firms	49.9%	36.5%
Share of group spending in NAICS code by the remaining firms	50.1%	63.5%

CHA analysis of SAWS data

Table 4-15 presents these data for Asian firms and non-M/WBE firms in NAICS Code 541330 – Engineering Services. We find that this code contains a much larger share of all dollars received by Asian firms compared to the code’s share of all non-M/WBE dollars. In addition, there is an 88.6 percent of all Asian dollars in this code; in contrast, the top three non-M/WBE firms only received 36.5 percent of all non-M/WBE monies in this code.

**Table 4-15: Comparing Asian and Non-M/WBE Outcomes for NAICS Code 541330 Engineering Services
(NAICS Code Weight of All SAWS Spending: 8.5%)**

	Asian	Non-M/WBE
NAICS code share of all spending	51.4%	7.5%
Number of firms	6	43
Share of group spending in NAICS code by the largest firm	55.2%	13.0%
Share of group spending in NAICS code by the second largest firm	23.6%	12.3%
Share of group spending in NAICS code by the third largest firm	9.8%	11.2%
Share of group spending in NAICS code by the three largest firms	88.6%	36.5%
Share of group spending in NAICS code by the remaining firms	11.4%	63.5%

CHA analysis of SAWS data

V. ANALYSIS OF DISPARITIES IN THE SAN ANTONIO METROPOLITAN AREA ECONOMY

A. Introduction

The late Nobel Prize Laureate Kenneth Arrow, in his seminal paper on the economic analysis of discrimination, observed:

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid, and credit extended.¹⁵⁰

This Chapter explores the data and literature relevant to how discrimination in the San Antonio metropolitan area economy affects the ability of minorities and women to fairly and fully engage in San Antonio Water System (“SAWS”) contract opportunities. First, we analyzed the rates at which Minority- and Woman-Owned Business Enterprises (“M/WBEs”) in the San Antonio Metropolitan Area form firms and their earnings from those firms. Next, we looked at M/WBE business activity in the State of Texas. Then, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All four types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

A key element to determine the need for SAWS to intervene in the construction market through contract goals is an analysis of the extent of disparities in that sector independent of the agency’s intervention through its construction contracting affirmative action program.

The courts have repeatedly held that analysis of disparities in the rate of M/WBE formation in the government’s markets as compared to similar non-M/WBEs, dis-

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

parities in M/WBE earnings, and barriers to access to capital markets are highly relevant to a determination of whether market outcomes are affected by race or gender ownership status.¹⁵¹ Similar analyses supported the successful legal defense of the Illinois Tollway's Disadvantaged Business Enterprise (DBE) Program from constitutional challenge.¹⁵²

Similarly, the Tenth Circuit Court of Appeals also upheld the U.S. Department of Transportation's DBE program, and in doing so, stated that this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.¹⁵³

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. In unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners

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

152. *Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al*, 840 F.3d 942 (7th Cir. 2016) (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony, including about disparities in the overall Illinois construction industry); *Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al*, 2015 WL 1396376 at * 21 (N.D. Ill.) ("Colette Holt [& Associates'] updated census analysis controlled for variables such as education, age, and occupation and still found lower earnings and rates of business formation among women and minorities as compared to white men."); *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts satisfied "compelling interest" standards using this framework).

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

compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.¹⁵⁴ “Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts.”¹⁵⁵

This type of court-approved analysis is especially important for an agency such as SAWS, which has been implementing a program for many years. The agency’s remedial market interventions through the use of race- and gender-based contract goals may ameliorate the disparate impacts of marketplace discrimination in the agency’s own contracting activities. Put another way, the program’s success in moving towards parity for minority and woman firms may be “masking” the effects of discrimination that, but for the contract goals, would mirror the disparities in M/WBE utilization in the overall economy.

To explore the question whether firms owned by non-Whites and White women face disparate treatment in the SAWS marketplace outside of SAWS contracts, we examined the U.S. Bureau of the Census’ *American Community Survey* (“ACS”) which allows us to examine disparities using individual entrepreneurs as the basic unit of analysis.¹⁵⁶ We used the San Antonio-New Braunfels metropolitan area as the geographic unit of analysis.

We found disparities in wages, business earnings and business formation rates for minorities and women in all industry sectors in the SAWS marketplace.¹⁵⁷

B. Disparate Treatment in the San Antonio Metropolitan Area Marketplace: Evidence from the Census Bureau’s 2015 - 2019 American Community Survey

As discussed in the beginning of this Chapter, the key question is whether firms owned by non-Whites and White women face disparate treatment in the market-

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

155. *Id.*

156. Data from 2015 - 2019 American Community Survey are the most recent for a five-year period.

157. Possible disparities in wages are important to explore because of the relationship between wages and business formation. Research by Alicia Robb and others indicate non-White firms rely on their own financing to start businesses compared to White firms who rely more heavily on financing provided by financial institutions. To the extent non-Whites face discrimination in the labor market, they would have reduced capacity to self-finance their entrepreneurial efforts and, hence, impact business formation. See, for example, Robb’s “Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms” (2013).

place without the intervention of SAWS' Small, Minority, Woman, and Veteran-owned Business Enterprise Program. In this section, we use the Census Bureau's ACS data to explore this and other aspects of this question. One element asks if demographic differences exist in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue of possible variations in the rate of business formation by different demographic groups. One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital, or the income level affects one's ability to borrow funds. Consequently, if particular demographic groups receive lower wages and salaries then they would have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.

The *American Community Survey Public Use Microdata Sample* ("PUMS") is useful in addressing these issues. The ACS is an annual survey of one percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for years 2015 through 2019.¹⁵⁸ With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

The Census Bureau classifies Whites, Blacks, Native Americans, and Asians as racial groupings. CHA developed a fifth grouping, "Other", to capture individuals who are not a member of the above four racial categories. In addition, Hispanics are an ethnic category whose members could be of any race, *e.g.*, Hispanics could be White or Black. In order to avoid double counting – *i.e.*, an individual could be counted once as Hispanic and once as White – CHA developed non-Hispanic subset racial categories: non-Hispanic Whites; non-Hispanic Blacks; non-Hispanic Native Americans; non-Hispanic Asians; and non-Hispanic Others. When those five groups are added to the Hispanic group, the entire population is counted and there is no double-counting. (When Whites are disaggregated into White men and White women, those groupings are non-Hispanic White men and non-Hispanic White women). For ease of exposition, the groups in this report are referred to as Black, Native American, Asian, Other, White women, and White men, while the actual content is the non-Hispanic subset of these racial groups.

Often, the general public sees clear associations between race, gender, and economic outcomes and assumes this association reflects a tight causal connection. However, economic outcomes are determined by a broad set of factors including,

158. Initially, the Census Bureau contacted approximately 3.5 million households. For the analysis reported in this Chapter, we examined over 47,000 observations. For more information about the ACS PUMS, see <https://www.census.gov/programs-surveys/acs/>.

and extending beyond, race and gender. To provide a simple example, two people who differ by race or gender may receive different wages. This difference may simply reflect that the individuals work in different industries. If this underlying difference is not known, one might assert the wage differential is the result of race or gender difference. To better understand the impact of race or gender on wages, it is important to compare individuals of different races or genders who work in the same industry. Of course, wages are determined by a broad set of factors beyond race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence in the analysis.

We employ a multiple regression statistical technique to process this data. This methodology allows us to perform two analyses: an estimation of how variations in certain characteristics (called independent variables) will impact the level of some particular outcome (called a dependent variable), and a determination of how confident we are that the estimated variation is statistically different from zero. We have provided a more detailed explanation of this technique in Appendix A.

With respect to the first result of regression analysis, we will examine how variations in the race, gender, and industry of individuals impact the wages and other economic outcomes received by individuals. The technique allows us to determine the effect of changes in one variable, assuming that the other determining variables are the same. That is, we compare individuals of different races, but of the same gender and in the same industry; or we compare individuals of different genders, but of the same race and the same industry; or we compare individuals in different industries, but of the same race and gender. We are determining the impact of changes in one variable (*e.g.*, race, gender or industry) on another variable (wages), “controlling for” the movement of any other independent variables.

With respect to the second result of regression analysis, this technique also allows us to determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist (*e.g.*, holding all other factors constant, women earn less than men), but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates that we are 95% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates that we are 99% confident that the relationship is different from zero; if the estimated relationship is statistically

significant at the 0.001 level, that indicates that we are 99.9% confident that the relationship is different from zero.¹⁵⁹

In the following presentation of results, each sub-section first reports data on the share of a demographic group that forms a business (business formation rates); the probabilities that a demographic group will form a business relative to White men (business formation probabilities); the differences in wages received by a demographic group relative to White men (wage differentials); and the differences in business earnings received by a demographic group relative to White men (business earnings differentials). Throughout portions of this analysis, because the ACS contained limited observations for certain groups in particular industries, we were unable to provide reliable estimates for business outcomes for these groups. In these situations, the value in the Table will be represented as “---”. Please note that there were always sufficient observations in the sample of wage earners in each group in each industry to permit us to develop reliable estimates.

1. All Industries Combined in the San Antonio Metropolitan Area

One method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the U.S. Bureau of the Census’ *American Community Survey*. Table 5-1 presents these results. The table indicates that White men have higher business formation rates compared to non-Whites and White women. There were too few numbers of Native American and Other firms in the sample; consequently, reliable estimates of business outcomes could not be made for these groups throughout this analysis of firms in the ACS. Table 5-2 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender.¹⁶⁰ This Table indicates that non-Whites and White women are less likely to form businesses compared White men; the reduced probability ranges from 0.4% for Asians to 3.5% for Blacks. These results were statistically significant at the 0.01 level for Blacks and the 0.05 level for Hispanics, and White women.

Another way to measure equity is to examine how the wage and salary incomes and business earnings of particular demographic groups compare to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcomes while controlling for other factors, such as education and age.¹⁶¹ Tables 5-3 and 5-4 present this

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

160. Appendix B provides a “Further Explanation of Probit Regression Analysis.”

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

data on wage and salary incomes and business earnings respectively. Table 5-3 indicates that non-Whites and White women earn less than White men. The reduction in earnings ranges from 7.2% to 29.4% and the results for Blacks, Hispanics, Asians, and White women are statistically significant at the 0.001 level. In Table 5-4, the only statistically significant results were for Hispanics and White women (-48.6% and -53.3% respectively). Both groups had lower business earnings than White men and the results were statistically significant at the 0.05 level.

Table 5-1: Business Formation Rates
All Industries, 2015 - 2019¹⁶²

Demographic Group	Business Formation Rates
Black	1.2%
Hispanic	2.1%
Native American	---
Asian/Pacific Islander	4.5%
Other	---
White Women	2.8%
Non-White Male	2.3%
White Male	5.0%

Source: CHA calculations from the American Community Survey

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

**Table 5-2: Business Formation Probabilities Relative to White Males
All Industries, 2015 - 2019**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-3.5%**
Hispanic	-1.4%*
Native American	---
Asian/Pacific Islander	0.4%
Other	---
White Women	-1.5%*

Source: CHA calculations from the American Community Survey

** Indicates statistical significance at the 0.01 level

* Indicates statistical significance at the 0.05 level

**Table 5-3: Wage Differentials for Selected Groups Relative to White Men
All Industries, 2015 - 2019**

Demographic Group	Wages Relative to White Men (% Change)
Black	-27.6%***
Hispanic	-19.2%***
Native American	-15.3%
Asian/Pacific Islander	-26.5%***
Other	-7.2%
White Women	-29.4%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

**Table 5-4: Business Earnings Differentials for Selected Groups
Relative to White Men, All Industries**

Demographic Group	Earnings Relative to White Men (% Change)
Black	-73.9%
Hispanic	-48.6%*
Native American	---
Asian/Pacific Islander	95.0%
Other	---
White Women	-53.3%*

Source: CHA calculations from the American Community Survey

* Indicates statistical significance at the 0.05 level

2. The Construction Industry in the San Antonio Metropolitan Area

The sample of firms in the construction industry contained too few numbers of Black, Native American, Asian, and Other firms to produce reliable estimates for these groups. Table 5-5 indicates that White men have higher business formation rates compared to Hispanics and lower business formation rates compared to White women. The results in Table 5-6 were not statistically significant. In Table 5-7, the results for Hispanics and White women were statistically significant at the 0.05 level and 0.001 level. Both groups earn lower wages than White men. Table 5-8 indicates that neither of the business coefficients were statistically significant.

Table 5-5: Business Formation Rates, Construction, 2015 - 2019

Demographic Group	Business Formation Rates
Black	---
Hispanic	4.2%
Native American	---
Asian/Pacific Islander	---
Other	---
White Women	11.8%
Non-White Male	4.5%
White Male	9.8%

Source: CHA calculations from the American Community Survey

Table 5-6: Business Formation Probability Differentials for Selected Groups Relative to White Men, Construction, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	---
Hispanic	-1.8%
Native American	---
Asian/Pacific Islander	---
Other	---
White Women	0.5%

Source: CHA calculations from the American Community Survey

Table 5-7: Wage Differentials for Selected Groups Relative to White Men Construction, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-21.4%
Hispanic	-9.8%*
Native American	42.6%
Asian/Pacific Islander	11.0%
Other	-13.9%
White Women	-35.2%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

Table 5-8: Business Earnings Differentials for Selected Groups Relative to White Men, Construction, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	---
Hispanic	85.8%
Native American	---

Demographic Group	Earnings Relative to White Men (% Change)
Asian/Pacific Islander	---
Other	---
White Women	-128.0% ^a

a. The proper way to interpret a coefficient that is less than negative 100% (e.g., the value of the coefficient for White women in Table 5-8), is the percentage amount non-M/WBEs earn that is more than the group in question. In this case, non-M/WBEs earn 128% more than White women.

Source: CHA calculations from the American Community Survey

3. The Construction-Related Services Industry in the San Antonio Metropolitan Area

The sample of firms in the construction-related services industry contained too few numbers of Black, Hispanic, Native American, Asian, White women, and Other firms to produce reliable estimates for these groups. The wages for Hispanics and White women were statistically significant at the 0.001 level. The differential was 40.4% for Hispanics and 64.4% for White women.

**Table 5-9: Business Formation Rates
Construction-Related Services, 2015 - 2019**

Demographic Group	Business Formation Rates
Black	---
Hispanic	---
Native American	---
Asian/Pacific Islander	---
Other	---
White Women	---
Non-White Male	---
White Male	11.0%

Source: CHA calculations from the American Community Survey

Table 5-10: Business Formation Probability Differentials for Selected Groups Relative to White Men, Construction-related Services, 2015 - 2019¹⁶³

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

Source: CHA calculations from the American Community Survey

Table 5-11: Wage Differentials for Selected Groups Relative to White Men Construction-Related Services, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-31.0%
Hispanic	-40.4%***
Native American	---
Asian/Pacific Islander	-21.4%
Other	23.4%
White Women	-64.4%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

Table 5-12: Business Earnings Differentials for Selected Groups Relative to White Men Construction-related Services, 2015 - 2019¹⁶⁴

Demographic Group	Earnings Relative to White Men (% Change)
Black	---
Hispanic	---
Native American	---

163. Because of limited observations for construction-related services, we were not able to form reliable estimates for this specific analysis.

Demographic Group	Earnings Relative to White Men (% Change)
Asian/Pacific Islander	---
Other	---
White Women	---

Source: CHA calculations from the American Community Survey

4. The Goods Industry in San Antonio Metropolitan Area

The sample of firms in the goods industry contained too few numbers of Black, Hispanic, Native American, Asian, White women, and Other firms to produce reliable estimates for these groups. Table 5.-5 indicates that statistically significant results are found for all groups and all indicate lower wages relative to White men. The results range from 26.1% for Hispanics to 2060% for Native Americans.

**Table 5-13: Table 5-13 Business Formation Rates
Goods, 2015 - 2019**

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

Source: CHA calculations from the American Community Survey

164. Because of limited observations for construction-related services, we were not able to form reliable estimates for this specific analysis.

Table 5-14: Business Formation Probabilities Relative to White Males
Goods, 2015 - 2019¹⁶⁵

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

Source: CHA calculations from the American Community Survey

Table 5-15: Wage Differentials for Selected Groups Relative to White Men
Goods, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-30.1%***
Hispanic	-26.1%***
Native American	-206.0%*
Asian/Pacific Islander	-41.6%***
Other	-93.8%**
White Women	-35.4%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

* Indicates statistical significance at the 0.05 level

165. Because of limited observations for goods, we were not able to form reliable estimates for this specific analysis.

Table 5-16: Business Earnings Differentials for Selected Groups Relative to White Men¹⁶⁶
Goods, 2015 - 2019

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

Source: CHA calculations from the American Community Survey

5. The Services Industry in San Antonio Metropolitan Area

There were low numbers of Native American and Other firms in the sample of the services industry; consequently, reliable estimates of firm outcomes could not be made for these groups. Table 5-17 indicates that White men have higher business formation rates compared to non-Whites and White women. Table 5-18 indicates that statistically significant results were found for Blacks, Hispanics, and White women. The level of statistical significance was 0.05, and the reduced likelihood of forming a business ranged from 1.2% for Hispanics to 2.9% for Blacks. Table 5-19 indicates that non-Whites and White women earn less than White men. For the statistically significant coefficients, the values range from 18.7% to 29.4%. Table 5-20 indicates that the coefficients for Hispanics and White women were statistically significant at the 0.01; that those two firms in those two groups earn less than White men; and the values are 89.9% for Hispanics and 92.4% for White woman.

Table 5-17: Business Formation Rates
Services, 2015 - 2019

Demographic Group	Business Formation Rates
Black	1.8%
Hispanic	2.2%
Native American	---
Asian/Pacific Islander	4.4%
Other	---

166. Because of limited observations for goods, we were not able to form reliable estimates for this specific analysis.

Demographic Group	Business Formation Rates
White Women	3.0%
Non-White Male	2.4%
White Male	5.6%

Source: CHA calculations from the American Community Survey

Table 5-18: Business Formation Probability Differentials for Selected Groups Relative to White Men, Services, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-2.9%*
Hispanic	-1.2%*
Native American	---
Asian/Pacific Islander	0.6%
Other	---
White Women	-1.8%*

Source: CHA calculations from the American Community Survey

* Indicates statistical significance at the 0.05 level

Table 5-19: Wage Differentials for Selected Groups Relative to White Men Services, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-22.0%***
Hispanic	-18.7%***
Native American	-3.3%
Asian/Pacific Islander	-26.8%***
Other	0.7%
White Women	-29.4%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

Table 5-20: Business Earnings Differentials for Selected Groups Relative to White Men Services, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	-37.6%
Hispanic	-89.9%**
Native American	---
Asian/Pacific Islander	61.9%
Other	---
White Women	-92.4%**

Source: CHA calculations from the American Community Survey

** Indicates statistical significance at the 0.01 level

6. The Information Technology Industry in the San Antonio Metropolitan Area

The sample of firms in the information technology industry contained too few numbers of Black, Hispanic, Native American, Asian, White women, and Other firms to produce reliable estimates for these groups' business outcomes. With respect to wages, Table 5-23 indicates that statistically significant coefficients for Blacks, Hispanics, Asians, and White women. The results ranged from – 20.9% to -36.9%.

Table 5-21: Business Formation Rates Information Technology, 2015 - 2019

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

Source: CHA calculations from the American Community Survey

* Indicates statistical significance at the 0.05 level

Table 5-22: Business Formation Probability Differentials for Selected Groups Relative to White Men, Information Technology, 2015 - 2019¹⁶⁷

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

Source: CHA calculations from the American Community Survey

Table 5-23: Wage Differentials for Selected Groups Relative to White Men Information Technology, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)
Black	-24.4%**
Hispanic	-21.0%***
Native American	-84.7%
Asian/Pacific Islander	-20.9%*
Other	-47.5%
White Women	-36.9%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

* Indicates statistical significance at the 0.05 level

167. Because of limited observations for information technology, we were not able to form reliable estimates for this specific analysis.

**Table 5-24: Business Earnings Differentials for Selected Groups Relative to White Men
Information Technology, 2015 - 2019¹⁶⁸**

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

Source: CHA calculations from the American Community Survey

7. Conclusion

Overall, the data presented in the above tables indicate that non-Whites and White women form businesses less than White men and their wage and business earnings are less than those of White men. These analyses support the conclusion that barriers to business success do affect non-White and White women entrepreneurs.

C. Disparate Treatment in the San Antonio Metropolitan Area Marketplace: Evidence from the Census Bureau’s 2017 Annual Business Survey

An additional question was whether non-Whites and White women have disparate outcomes when they are active in the San Antonio marketplace. This question was operationalized by exploring to see if the share of business receipts, number of firms, and payroll for non-Whites and White women construction firms is greater than, less than, or equal to the non-White and White women share of all firms. To answer this question, we examined the U.S. Bureau’s Annual Business Survey (“ABS”). The ABS supersedes the more well-known Survey of Business Owners (“SBO”). The SBO was last conducted in 2012 and historically has been reported every five years. In contrast, the ABS was first conducted in 2017 and the goal of the Census Bureau is to release results annually. As of the writing of this report, the most recent complete ABS contains 2017 data. The ABS surveyed about 850,000 employer firms and collects data on a variety of variables documenting

168. Because of limited observations for information technology, we were not able to form reliable estimates for this specific analysis.

ownership characteristics including race, ethnicity, and gender. It also collects data on the firms' business activity with variables marking the firms' number of employees, payroll size, sales and industry.¹⁶⁹

With this data, we grouped the firms into the following ownership categories:^{170,171}

- Hispanics
- non-Hispanic Blacks
- non-Hispanic Native Americans
- non-Hispanic Asians
- non-Hispanic White women
- non-Hispanic White men
- Firms equally owned by non-Whites and Whites
- Firms equally owned by men and women
- Firms that were either publicly-owned or where the ownership could not be classified

For purposes of this analysis, the first four groups were aggregated to form a non-White category. Since our interest is the treatment of non-White-owned firms and White women-owned firms, the last four groups were aggregated to form one category. To ensure this aggregated group is described accurately, we label this group "not non-White/non-White women". While this label is cumbersome, it is important to be clear this group includes firms whose ownership extends beyond White men, such as firms that are not classifiable or that are publicly traded and thus have no racial ownership. In addition to the ownership demographic data, the Survey also gathers information on the sales, number of paid employees, and payroll for each reporting firm.

To examine those sectors in which SAWS purchases, we analyzed the ABS data on the following sectors:

- Construction
- Professional, Scientific and Technical Services
- Goods

169. For more information on the Annual Business Survey see <https://www.census.gov/programs-surveys/abs/about.html>.

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

171. For expository purposes, the adjective "non-Hispanic" will not be used in this Chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Hispanic.

- Other services

However, the nature of the ABS data – a sample of all businesses, not the entire universe of all businesses – required some adjustments. In particular, we had to define the sectors at the 2-digit North American Industry Classification System (“NAICS”) code level, and therefore our sector definitions do not exactly correspond to the definitions used to analyze the SAWS contract data in Chapter IV, where we are able to determine sectors at the 6-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells may be so small that the Census Bureau does not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe. We therefore report two-digit data.

Table 5-25 presents information on which NAICS codes were used to define each sector.

Table 5-25: 2-Digit NAICS Code Definition of Sector

ABS Sector Label	2-Digit NAICS Codes
Construction	23
Professional, Scientific, and Technical Services ^a	54
Goods	31,42, 44
Other Services	48, 52, 53, 56, 61, 62, 71, 72, 81

a. This sector includes (but is broader than just) construction-related services. It is impossible to narrow this category to construction-related services without losing the capacity to conduct race and gender specific analyses.

The balance of this Chapter section reports the findings of the ABS analysis.

1. All Industries

For a baseline analysis, we examined all industries in the State of Texas. The state was the geographic unit of analysis because the ABS does not present data at the sub-state level. Table 5.26 presents data on the percentage share that each group has of the total of each of the following four business outcomes:

- The number of firms with employees (employer firms)
- The sales and receipts of all employer firms
- The number of paid employees
- The annual payroll of employer firms

Panel A of Table 5-26 presents data for the four basic non-White racial groups:

- Black
- Hispanic
- Native American
- Asian

Panel B of Table 5-26 presents data for six types of firm ownership:

- non-White
- White women
- Not non-White/non-White women¹⁷²

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

Since the central issue is the possible disparate treatment of non-White firms and White woman firms, we calculate three disparity ratios each for Black, Hispanic, Asian, Native American, non-White, and White woman firm respectively (a total of 18 ratios), presented in Table 5-27:

- Ratio of sales and receipts share for all employer firms over the share of total number of all employer firms.
- Ratio of sales and receipts share for employer firms over the share of total number of employer firms.
- Ratio of annual payroll share over the share of total number of employer firms.

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all employer firms for Black firms is 13.0% (as shown in Table 5-26). This is derived by taking the Black share of sales and receipts for all employer firms (0.3%) and dividing it by the Black share of total number of all employer firms (2.2%) that are presented in Table 5-26.¹⁷³ If Black-owned

172. Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

173. Please note that while the numbers presented in Table 5-26 are rounded to the first decimal place, the calculations resulting in the numbers presented in Table 5-27 are based on the actual (non-rounded) figures. Therefore, the Black ratio presented in Table 5-27 of 13.0% (as presented in Table 5-27) is not the same figure as that which would be derived when you divided 0.3 by 2.2 (the numbers presented in Table 5-26).

firms earned a share of sales equal to their share of total firms, the disparity would have been 100%. An index less than 100% indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80% rule” that a ratio less than 80% presents a *prima facie* case of discrimination.¹⁷⁴ All of the 18 disparity ratios for non-White firms and White woman firms are below this threshold.¹⁷⁵

**Table 5-26: Demographic Distribution of Sales and Payroll Data – Aggregated Groups
All Industries, 2017**

	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms				
Black	2.2%	0.3%	1.1%	0.6%
Hispanic	12.2%	2.2%	5.7%	3.4%
Asian	11.3%	2.1%	4.1%	2.4%
Native American	0.4%	0.1%	0.2%	0.1%
Panel B: Distribution of All Firms				
Non-White	26.1%	4.7%	11.1%	6.5%
White Women	13.6%	2.7%	5.8%	4.5%
Not Non-White/Not White Women	60.3%	92.6%	83.1%	89.0%
All Firms	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from American Business Survey

174. 29 C.F.R. §1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

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

**Table 5-27: Disparity Ratios of Firm Utilization Measures
All Industries, 2017**

	Ratio of Sales to Number of Employer Firms	Ratio of Employees to Number of Employer Firms	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratio for Non-White Firms			
Black	13.0%	50.5%	26.2%
Hispanic	18.0%	46.7%	27.5%
Asian	18.5%	36.6%	21.6%
Native American	22.1%	42.8%	30.0%
Panel B: Disparity Ratios for All Firms			
Non-White	17.8%	42.6%	24.9%
White Women	19.9%	42.9%	33.2%
Not Non-White/Not White Women	153.6%	137.7%	147.6%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from American Business Survey

This same approach was used to examine the Construction, Professional, Scientific and Technical Services, Goods, and Other Services sectors. The following are summaries of the results of the disparity analyses.

2. Construction

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-28, 17 fall under the 80% threshold.

**Table 5-28: Table 5-28 Disparity Ratios – Aggregated Groups
Construction, 2017**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	48.4%	58.0%	44.7%
Hispanic	44.3%	52.3%	39.9%
Asian	35.9%	33.9%	29.8%
Native American	50.5%	69.2%	59.3%
Panel B: Disparity Ratios for All Firms			
Non-White	44.1%	51.8%	40.0%
White Women	62.9%	84.0%	74.6%
Not Non-White/Not White Women	119.4%	114.9%	119.2%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from American Business Survey

3. Construction-Related Services

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-29, all 18 fall under the 80% threshold.

**Table 5-29: Disparity Ratios – Aggregated Groups
Professional, Scientific, and Technical Services, 2017**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	33.0%	34.9%	25.5%
Hispanic	34.7%	44.2%	26.8%

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Asian	43.3%	44.4%	39.1%
Native American	34.4%	33.3%	24.9%
Panel B: Disparity Ratios for All Firms			
Non-White	38.5%	43.1%	32.3%
White Women	42.0%	44.1%	32.0%
Not Non-White/Not White Women	135.9%	133.8%	140.6%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from American Business Survey

4. Goods

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-30, all 18 fall under the 80% threshold.

**Table 5-30: Disparity Ratios – Aggregated Groups
Goods, 2017**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	13.5%	25.8%	20.9%
Hispanic	14.3%	29.8%	23.4%
Asian	12.7%	21.4%	14.3%
Native American	19.2%	42.7%	39.2%
Panel B: Disparity Ratios for All Firms			
Non-White	13.4%	24.9%	18.1%
White Women	13.8%	34.4%	30.8%
Not Non-White/Not White Women	158.7%	148.9%	152.8%
All Firms	100.00%	100.00%	100.00%

Source: CHA calculations from American Business Survey

5. Services

Of the 18 disparity ratios for non-White firms and White woman firms presented in Table 5-31, all 18 fall under the 80% threshold.

**Table 5-31: Disparity Ratios – Aggregated Groups
Services, 2017**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	21.9%	59.3%	33.2%
Hispanic	24.6%	55.7%	34.5%
Asian	23.7%	44.4%	26.4%
Native American	23.3%	51.1%	24.7%
Panel B: Disparity Ratios for All Firms			
Non-White	23.9%	51.3%	30.9%
White Women	28.5%	46.8%	36.4%
Not Non-White/Not White Women	157.6%	138.7%	152.0%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from American Business Survey

6. Conclusion

Overall, the analysis of the ABS data presented in the above tables indicate that the non-Whites and White women share of all employer firms is greater than their share of sales, payrolls, and employees. This supports the conclusion that barriers to business success disproportionately affect non-White and White woman entrepreneurs.

D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. Participants in the anecdotal data collection universally agreed to this fundamental fact. The interviews with business owners conducted as part of this study confirmed that small firms, especially minority- and woman-owned firms, had difficulties obtaining needed working capital to perform on SAWS contracts and subcontracts, as well as expand the capaci-

ties of their firms. As demonstrated by the analyses of Census Bureau data, above, discrimination may even prevent firms from forming in the first place.

There are extensive federal agency reports and much scholarly work on the relationship between personal wealth and successful entrepreneurship. There is a general consensus that disparities in personal wealth translate into disparities in business creation and ownership.¹⁷⁶ The most recent research highlights the magnitude of the Covid-19 pandemic's disproportionate impact on minority-owned firms.

1. Federal Reserve Board Small Business Credit Surveys¹⁷⁷

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

a. 2021 Small Business Credit Survey

The 2021 Small Business Credit Survey¹⁷⁸ reached more than 15,000 small businesses, gathering insights about the COVID-19 pandemic's impact on small businesses, as well as business performance and credit conditions. The Survey yielded 9,693 responses from a nationwide convenience sample of small employer firms with between one and 499 full- or part-time employees (hereafter "firms") across all 50 states and the District of Columbia. The survey was fielded in September and October 2020, approximately six months after the onset of the pandemic. The timing of the survey is important to the interpretation of the results. At the time of the survey, the Paycheck Protection Program ("PPP") authorized by the Coronavirus Act, Relief, and Economic Security Act had recently closed, and prospects for additional stimulus funding were uncertain. Additionally, many government-mandated business closures had been lifted as the number of new COVID-19 cases plateaued in advance of a significant increase in cases by the year's end.

The 2020 survey findings highlight the magnitude of the pandemic's impact on small businesses and the challenges they anticipate as they navigate changes in the business environment. Few firms avoided the negative impacts of the pandemic. Furthermore, the findings reveal disparities in

176. See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," *Journal of Political Economy*, Vol. 97, No. 4, 1989, pp. 808-827; David S. Evans and Linda S. Leighton, "Some empirical aspects of entrepreneurship," *The American Economic Review*, Vol. 79, No. 3, 1989, pp. 519-535.

177. This survey offers baseline data on the financing and credit positions of small firms before the onset of the pandemic. See [fedsmallbusiness.org](https://www.fedsmallbusiness.org).

178. <https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/2021-sbcs-employer-firms-report>.

experiences and outcomes across firm and owner demographics, including race and ethnicity, industry, and firm size.

Overall, firms' financial conditions declined sharply and those owned by people of color reported greater challenges. The most important anticipated financial challenge differed by race and ethnicity of the owners. Among the findings for employer firms relevant to discriminatory barriers were the following:

- For Black-owned firms, credit availability was the top expected challenge, while Asian-owned firms disproportionately cited weak demand.
- The share of firms in fair or poor financial conditions varied by race: 79% of Asian-owned firms, 77% of Black-owned firms, 66% of Hispanic-owned firms and 54% of White-owned firms reported this result.
- The share of firms that received all the financing sought to address the impacts of the pandemic varied by race: 40% of White-owned firms received all the funding sought, but only 31% of Asian-owned firms, 20% of Hispanic-owned firms and 13% of Black-owned firms achieved this outcome.

b. 2018 Small Business Credit Survey

The 2018 Small Business Credit Survey¹⁷⁹ focused on minority-owned firms. The analysis was divided into two types: employer firms and non-employer firms.

i. Employer firms

Queries were submitted to businesses with fewer than 500 employees in the third and fourth quarters of 2018. Of the 7,656 firms in the unweighted sample, five percent were Asian, ten percent were Black, six percent were Hispanic, and 79% were White. Data were then weighted by number of employees, age, industry, geographic location (census division and urban or rural location), and minority status to ensure that the data is representative of the nation's small employer firm demographics.¹⁸⁰

179. Small Business Credit Survey, <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

180. *Id* at 22. Samples for SBCS are not selected randomly. To control for potential biases, the sample data are weighted so that the weighted distribution of firms in the SBCS matches the distribution of the small firm population in the United States by number of employees, age industry, geographic location, gender of owner, and race or ethnicity of owners.

Among the findings for employer firms relevant to discriminatory barriers were the following:

- Not controlling for other firm characteristics, fewer minority-owned firms were profitable compared to non-minority-owned firms during the past two years.¹⁸¹ On average, minority-owned firms and non-minority-owned firms were about as likely to be growing in terms of number of employees and revenues.¹⁸²
- Black-owned firms reported more credit availability challenges or difficulties obtaining funds for expansion—even among firms with revenues of more than \$1M. For example, 62% of Black-owned firms reported that obtaining funds for expansion was a challenge, compared to 31% of White-owned firms.¹⁸³
- Black-owned firms were more likely to report relying on personal funds of owner(s) when they experienced financial challenges to fund their business. At the same time, White- and Asian-owned firms reported higher debt levels than Black- and Hispanic-owned firms.¹⁸⁴
- Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing. Forty percent of Black-owned firms did not apply because they were discouraged, compared to 14% of White-owned firms.¹⁸⁵
- Low credit score and lack of collateral were the top reported reasons for denial of applications by Black- and Hispanic-owned firms.¹⁸⁶

ii. Non-employer firms¹⁸⁷

Queries were submitted to non-employer firms in the third and fourth quarters of 2018. Of the 4,365 firms in the unweighted sample, five percent were Asian, 24% were Black, seven percent were Hispanic, and 64% were White. Data were then weighted by age, industry, geographic location (census division and urban or rural location), and minority status.¹⁸⁸

181. *Id.* at 3.

182. *Id.* at 4.

183. *Id.* at 5.

184. *Id.* at 6.

185. *Id.* at 9.

186. *Id.* at 15.

187. *Id.* at 18.

188. *Id.* at 18.

Among the findings for non-employer firms relevant to discriminatory barriers were the following:

- Black-owned firms were more likely to operate at a loss than other firms.¹⁸⁹
- Black-owned firms reported greater financial challenges, such as obtaining funds for expansion, accessing credit and paying operating expenses than other businesses.¹⁹⁰
- Black- and Hispanics-owned firms submitted more credit applications than White-owned firms.¹⁹¹

c. 2016 Small Business Credit Surveys

The 2016 Small Business Credit Survey¹⁹² obtained 7,916 responses from employer firms with race/ethnicity information and 4,365 non-employer firms in the 50 states and the District of Columbia. Results were reported with four race/ethnicity categories: White, Black or African American, Hispanic, and Asian or Pacific Islander.¹⁹³ It also reported results from woman-owned small employer firms, defined as firms where 51% or more of the business is owned by women, and compared their experiences with male-owned small employer firms.

i. The 2016 Report on Minority-Owned Businesses¹⁹⁴

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

Demographics¹⁹⁵

The SBCS found that Black-, Asian-, and Hispanic-owned firms tended to be younger and smaller in terms of revenue size, and they were concentrated in different industries. Black-owned firms were concentrated in the healthcare and education industry sectors (24%). Asian-owned firms were concentrated in professional services and real estate (28%). Hispanic-owned firms were concentrated in non-manufacturing goods production and associated services industry, including building trades

189. *Id.*

190. *Id.* at 19.

191. *Id.* at 20.

192. <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

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

194. <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

195. 2016 SBCS, at 2.

and construction (27%). White-owned firms were more evenly distributed across several industries but operated most commonly in the professional services industry and real estate industries (19%), and non-manufacturing goods production and associated services industry (18%).¹⁹⁶

*Profitability Performance Index*¹⁹⁷

After controlling for other firm characteristics, the SBCS found that fewer minority-owned firms were profitable compared to non-minority-owned firms during the prior two years. This gap proved most pronounced between White- (57%) and Black-owned firms (42%). On average, however, minority-owned firms and non-minority-owned firms were nearly as likely to be growing in terms of number of employees and revenues.

*Financial and Debt Challenges/Demands*¹⁹⁸

The number one reason for financing was to expand the business or pursue a new opportunity. Eighty-five percent of applicants sought a loan or line of credit. Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing.

Black-, Hispanic-, and Asian-owned firms applied to large banks for financing more than they applied to any other sources of funds. Having an existing relationship with a lender was deemed more important to White-owned firms when choosing where to apply compared to Black-, Hispanic- and Asian-owned firms.

The SBCS also found that small Black-owned firms reported more credit availability challenges or difficulties for expansion than White-owned firms, even among firms with revenues in excess of \$1M. Black-owned firm application rates for new funding were ten percentage points higher than White-owned firms; however, their approval rates were 19 percentage points lower. A similar but less pronounced gap existed between Hispanic- and Asian-owned firms compared with White-owned firms. Of those approved for financing, only 40% of minority-owned firms received the entire amount sought compared to 68% of non-minority-owned firms, even among firms with comparably good credit scores.

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

197. *Id.* at 3-4.

198. *Id.* at 8-9; 11-12; 13; 15.

Relative to financing approval, the SBCS found stark differences in loan approvals between minority-owned and White-owned firms. When controlling for other firm characteristics, approval rates from 2015 to 2016 increased for minority-owned firms and stayed roughly the same for non-minority-owned firms. Hispanic- and Black-owned firms reported the highest approval rates at online lenders.¹⁹⁹

Low credit score and lack of collateral were the top reported reasons for denial of Black- and Hispanic-owned firms' applications. Satisfaction levels were lowest at online lenders for both minority- and non-minority-owned firms. A lack of transparency was cited as one of the top reasons for dissatisfaction for minority applicants and borrowers.

Forty percent of non-applicant Black-owned firms reported not applying for financing because they were discouraged (expected not to be approved), compared with 14% of White-owned firms. The use of personal funds was the most common action taken in response to financial challenges, with 86% of Black-owned firms, 77% of Asian-owned firms, 76% of White-owned firms, and 74% of Hispanic-owned firms using this as its source.

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

*Business Location Impact*²⁰⁰

Controlling for other firm characteristics, minority-owned firms located in low-income minority zip codes reported better credit outcomes at large banks, compared with minority-owned firms in other zip codes. By contrast, at small banks, minority-owned firms located in low- and moderate-income minority zip codes experiences lower approval rates than minority-owned firms located in other zip codes.

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

200. *Id.* at 17.

*Non-employer Firms*²⁰¹

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

ii. The 2016 Report on Women-Owned Businesses²⁰²

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

*Firm Characteristics: Woman-Owned Firms Start Small and Remain Small and Concentrate in Less Capital-Intensive Industries*²⁰³

The SBCS found that 20% of small employer firms were woman-owned, compared to 65% male-owned and 15% equally owned. Woman-owned firms generally had smaller revenues and fewer employees than male-owned small employer firms. These firms tended to be younger than male-owned firms.

Woman-owned firms were concentrated in less capital-intensive industries. Two out of five woman-owned firms operated in the healthcare and education or professional services and real estate industries. Male-owned firms were concentrated in professional services, real estate, and non-manufacturing goods production and associated services.²⁰⁴

*Profitability Challenges and Credit Risk Disparities*²⁰⁵

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

201. *Id.* at 21.

202. <https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-WomenOwnedFirms-2016.pdf>.

203. 2016 SBCS, at 1-5.

204. Non-manufacturing goods production and associated services refers to firms engaged in Agriculture, Forestry, Fishing, and Hunting; Mining, Quarrying, and Oil and Gas Extraction; Utilities; Construction; Wholesale Trade; Transportation and Warehousing (NAICS codes: 11, 21, 22, 23, 42, 48-49).

205. *Id.* at 6-7.

*Financial Challenges During the Prior Twelve Months*²⁰⁶

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

*Debt Differences*²⁰⁷

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

*Demands for Financing*²⁰⁸

Forty-three percent of woman-owned firms applied for financing. Like male-owned firms, woman-owned firms most frequently applied for loans and lines of credit. Both woman- and male-owned firms were most successful at small banks. Both reported that the most common reason for financing was business expansion. Woman-owned applicants tended to seek smaller amounts of financing even when their revenue size was comparable.

Overall, woman-owned firms were less likely to receive all financing applied for compared to male-owned firms. Woman-owned firms received a higher approval rate for U.S. Small Business Administration loans compared to male-owned firms. Low-credit, woman-owned firms were less likely to be approved for business loans than their male counterparts with similar credit (68% compared to 78%).

*Firms That Did Not Apply for Financing*²⁰⁹

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

206. *Id.* at 8.

207. *Id.* at 10.

208. *Id.*, at 16.

209. *Id.* at 14.

*Lender Satisfaction*²¹⁰

Woman-owned firms were most consistently dissatisfied by lenders' lack of transparency and by long waits for credit decisions. However, they were notably more satisfied with their borrowing experiences at small banks rather than large ones.

2. 2021 Report on Firms Owned by People of Color

a. Overview

The *2021 Report on Firms Owned by People of Color*²¹¹ compiles results from the 2020 Small Business Credit Survey ("SBCS"). The SBCS provides data on small business performance, financing needs, and decisions and borrowing outcomes.^{212, 213} The Report provides results by four race/ethnicity categories: White, Black or African American, Hispanic or Latino, and Asian or Pacific Islander. For select key statistics, it also includes results for 4,531 non-employer firms, which are firms with no employees on payroll other than the owner(s) of the business.

Patterns of geographic concentration emerged among small business ownership by race and ethnicity. This was important given the progressive geographic spread of the novel coronavirus throughout 2020 and variations in state government responses to limit its spread. The Report found that 40% of Asian-owned small employer firms are in the Pacific census division, and another 28% are in the Middle Atlantic. Early and aggressive efforts by the impacted states may have affected the revenue performance of Asian-owned firms in the aggregate given their geographic concentration. Black- and Hispanic-owned small employer firms are more concentrated in the South Atlantic region, which includes states with a mix of pandemic responses. For example, while Florida lifted COVID-19 restrictions relatively quickly, the South Atlantic includes states such as Maryland and North Carolina that maintained more strict guidelines.

The *Report* found that firms owned by people of color continue to face structural barriers in acquiring the capital, business acumen, and market access for growth. At the time of the 2020 SBCS – six months after the onset of the global pandemic – the U.S. economy had undergone a significant contraction of economic activity. As a result, firms owned by people of

210. *Id.* at 26.

211. <https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/sbcs-report-on-firms-owned-by-people-of-color>.

212. The SBCS is an annual survey of firms with fewer than 500 employees.

213. The 2020 SBCS was fielded in September and October 2020 and yielded 9,693 responses from small employer firms in all 50 states and the District of Columbia.

color reported more significant negative effects on business revenue, employment, and operations. These firms anticipated revenue, employment, and operational challenges to persist into 2021 and beyond. Specific findings are, as follows:

b. Performance and Challenges

Overall, firms owned by people of color were more likely than White-owned firms to report that they reduced their operations in response to the pandemic. Asian-owned firms were more likely than others to have temporarily closed and to have experienced declines in revenues and employment in the 12 months prior to the survey. In terms of sales and the supply chain, 93% of Asian-owned firms and 86% of Black-owned firms reported sales declines as a result of the pandemic. Relative to financial challenges for the prior 12 months, firms owned by people of color were more likely than White-owned firms to report financial challenges, including paying operating expenses, paying rent, making payments on debt, and credit availability. Black-owned business owners were most likely to have used personal funds in response to their firms' financial challenges. Nearly half of Black-owned firms reported concerns about personal credit scores or the loss of personal assets. By contrast, one in five White-owned firms reported no impact on the owners' personal finances. Asian-owned firms were approximately twice as likely as White-owned firms to report that their firms were in poor financial condition.

c. Emergency Funding

The *Report* finds that PPP loans were the most common form of emergency assistance funding that firms sought during the period. Black- and Hispanic-owned firms were less likely to apply for a PPP loan. Only six in ten Black-owned firms actually applied. Firms owned by people of color were more likely than White-owned firms to report that they missed the deadline or were unaware of the program. Firms owned by people of color were less likely than White-owned firms to use a bank as a financial services provider. Regardless of the sources at which they applied for PPP loans, firms that used banks were more likely to apply for PPP loans than firms that did not have a relationship with a bank. While firms across race and ethnicity were similarly likely to apply for PPP loans at large banks, White- and Asian-owned firms more often applied at small banks than did Black- and Hispanic-owned firms. Black-owned firms were nearly half as likely as White-owned firms to receive all of the PPP funding they sought and were approximately five times as likely to receive none of the funding they sought.

d. Debt and Financing

Black-owned firms have smaller amounts of debt than other firms. About 1 in 10 firms owned by people of color do not use financial services.

On average, Black-owned firms completed more financing applications than other applicant firms. Firms owned by people of color turned more often to large banks for financing. By contrast, White-owned firms turned more often to small banks. Black-owned applicant firms were half as likely as White-owned applicant firms to be fully approved for loans, lines of credit, and cash advances.

Firms owned by people of color were less satisfied than White-owned firms with the support from their primary financial services provider during the pandemic. Regardless of owner race or ethnicity, firms were less satisfied with online lenders than with banks and credit unions.

In the aggregate, 63% of all employer firms were nonapplicants – they did not apply for non-emergency financing in the prior 12 months. Black-owned firms were more likely than other firms to apply for non-emergency funding in the 12 months prior to the survey. One-quarter of Black- and Hispanic-owned firms that applied for financing sought \$25,000 or less. In 2020, firms owned by people of color were more likely than White-owned firms to apply for financing to meet operating expenses. The majority of nonapplicant firms owned by people of color needed funds but chose not to apply, compared to 44% of White-owned firms. Financing shortfalls were most common among Black-owned firms and least common among White-owned firms.

Firms of color, and particularly Asian-owned firms, were more likely than White-owned firms to have unmet funding needs. Just 13% of Black-owned firms received all of the non-emergency financing they sought in the 12 months prior to the survey, compared to 40% of White-owned firms. Black-owned firms with high credit scores were half as likely as their White counterparts to receive all of the non-emergency funding they sought.

e. Findings for Nonemployer Firms

Nonemployer firms, those that have no paid employees other than the owner, represent the overwhelming majority of small businesses across the nation. In all, 96% of Black- and 91% of Hispanic-owned firms are nonemployer firms, compared to 78% of White-owned and 75% of Asian-owned firms.²¹⁴

214. The Report notes that a future report will describe findings from the 2020 SBCS for non-employers in greater detail.

Compared to other nonemployer firms, Asian-owned firms reported the most significant impact on sales as a result of the pandemic. They were most likely to report that their firm was in poor financial condition at the time of the survey.

Compared to other nonemployer firms that applied for financing, Black-owned firms were less likely to receive all of the financing they sought. Black-owned nonemployer firms that applied for PPP loans were less likely than other firms to apply at banks and more often turned to online lenders. Among PPP applicants, White-owned nonemployer firms were twice as likely as Black-owned firms to receive all of the PPP funding they sought.

3. 2020 Small Business Administration Loans to African American Businesses

As detailed in a 2021 article published in the *San Francisco Business Times*,²¹⁵ the number of loans to Black businesses through the SBA's 7(a) program²¹⁶ decreased 35% in 2020.²¹⁷ This was the largest drop in lending to any race or ethnic group tracked by the SBA. The 7(a) program is the SBA's primary program for financial assistance to small businesses. Terms and conditions, like the guaranty percentage and loan amount, vary by the type of loan. Lenders and borrowers can negotiate the interest rate, but it may not exceed the SBA maximum.²¹⁸

Bankers, lobbyists, and other financial professionals attributed the 2020 decline to the impact of the PPP pandemic relief effort.²¹⁹ The PPP loan program provided the source of relief to underserved borrowers through a direct incentive for small businesses to keep their workers on payroll.²²⁰ Approximately 5.2 million PPP loans were made in 2020, as compared with roughly 43,000 loans made through the 7(a) program.

215. SBA Loans to African American Businesses Decrease 35%, *San Francisco Business Times* (August 11, 2021) at: <https://www.bizjournals.com/sanfrancisco/news/2021/08/11/sba-loans-to-african-american-businesses-decrease.html>. Data were obtained through a Freedom of Information Act request.

216. Section 7(a) of the Small Business Act of 1953 (P.L. 83-163, as amended).

217. The total number of 7(a) loans declined 24%.

218. The SBA caps the maximum spread lenders can charge based on the size and maturity of the loan. Rates range from prime plus 4.5% to prime plus 6.5%, depending on how much is borrowed.

219. The Coronavirus Act, Relief, and Economic Security Act ("CARES Act"), required the SBA to issue guidance to PPP lenders to prioritize loans to small businesses owned by socially and economically disadvantaged individuals including Black-owned businesses. See 116-136, §1, March 27, 2020, 134 Stat. 281.

220. PPP loans were used to help fund payroll costs, including benefits, and to pay for mortgage interest, rent, utilities, workers protection costs related to COVID-19, uninsured property damage costs caused by looting or vandalism during 2020 as well as certain supplier costs and operational expenses.

In a published statement to the *Portland Business Journal*, the American Bankers Association, an industry trade group, noted that the 2020 decline in SBA 7(a) loans to Black-owned businesses is not a one-year anomaly; it has been declining for years at a much faster rate than 7(a) loans to other borrowers. The 2020 data²²¹ reveal that the number of SBA loans made annually to Black businesses has declined 90% since a 2007 peak, more than any other group tracked by the SBA. In that interval, the overall number of loans decreased by 65%.

The nation's four largest banks (JP Morgan Chase, Bank of America, Citigroup, and Wells Fargo), which hold roughly 35% of national deposits, made 41% fewer SBA 7(a) loans to Blacks in 2020.²²²

PPP loans served as a lifeline during the pandemic for millions of businesses. However, industry experts maintained that PPP loans detracted from more conventional SBA lending efforts that year. Wells Fargo provided more than 282,000 PPP loans to small businesses nationwide in 2020, with an average loan size of \$50,000. Wells Fargo, the most active lender for Black-owned businesses nationwide in 2020, saw its SBA loans to Blacks drop from 263 in 2019 to 162 in 2020. Bank of America, Chase, and Citi also reported fewer SBA loans to African American businesses in 2020.

While PPPs have been heralded for providing needed monies to distressed small and mid-size businesses, data reveals disparities in how loans were distributed.²²³ An analysis in 2020 by the *Portland Business Journal*, found that of all 5.2 million PPP loans, businesses in neighborhoods of color received fewer loans and delayed access to the program during the early critical days of the pandemic.²²⁴ More recent analysis released by the Associated Press indicates that access for borrowers of color improved exponentially during the later rounds of PPP funding, following steps designed to make the program more accessible to underserved borrowers.

221. The SBA denied the original request for information; however, the publication prevailed on appeal.

222. Data obtained by the *Business Journal* does not include information from lenders who made less than ten loans in 2020.

223. While PPP loans are administered by the SBA, they are disbursed primarily through banks.

224. Many industry experts have observed that businesses that already had strong relationships with lenders were the most successful in accessing PPP loans. The nation's long history of systemic racism in banking fostered disparities in PPP loan distribution. See Alicia Plerhoples, *Correcting Past Mistakes: PPP Loans and Black-Owned Small Businesses*, at <https://www.acslaw.org/expertforum/correcting-past-mistakes-ppp-loans-and-black-owned-small-businesses/>.

4. 2010 Minority Business Development Agency Report²²⁵

The 2010 Minority Business Development Agency Report, “Disparities in Capital Access Between Minority and non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs”, summarizes results from the Kauffman Firm Survey, data from the U.S. Small Business Administration’s Certified Development Company/504 Guaranteed Loan Program and additional extensive research on the effects of discrimination on opportunities for minority-owned firms. The report found that

Low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner’s wealth can be invested directly in the business, used as collateral to obtain business loans or used to acquire other businesses.²²⁶

It also found, “the largest single factor explaining racial disparities in business creation rates are differences in asset levels”.²²⁷

Some additional key findings of the Report include:

- *Denial of Loan Applications.* Forty-two percent of loan applications from minority firms were denied compared to 16% of loan applications from non-minority-owned firms.²²⁸
- *Receiving Loans.* Forty-one percent of all minority-owned firms received loans compared to 52% of all non-minority-owned firms. MBEs are less likely to receive loans than non-minority-owned firms regardless of firm size.²²⁹
- *Size of Loans.* The size of the loans received by minority-owned firms averaged \$149,000. For non-minority-owned firms, loan size averaged \$310,000.
- *Cost of Loans.* Interest rates for loans received by minority-owned firms averaged 7.8%. On average, non-minority-owned firms paid 6.4% in interest.²³⁰

225. Robert W. Fairlie and Alicia Robb, Disparities in Capital Access Between Minority and non-Minority Businesses: The Troubling Reality of Capital Limitations Faced by MBEs, Minority Business Development Agency, U.S. Department of Commerce, 2010 (“MBDA Report” (<https://archive.mbda.gov/sites/mbda.gov/files/migrated/files-attachments/DisparitiesinCapitalAccessReport.pdf>)).

226. *Id.* at 17.

227. *Id.* at 22.

228. *Id.* at 5.

229. *Id.*

230. *Id.*

- *Equity Investment.* The equity investments received by minority-owned firms were 43% of the equity investments received by non-minority-owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43% of the average of new equity investments in non-minority-owned firms. The differences were even larger for loans received by high sales firms.²³¹

5. Federal Reserve Board Surveys of Small Business Finances

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for years 1993, 1998 and 2003.²³² These Surveys of Small Business Finances are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than White-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive.²³³

6. Other Reports

- Dr. Timothy Bates found venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.²³⁴
- According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their own firms were about 18% lower in the first year of operations compared to those of non-minority-owned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their own firms were about 36% lower compared to those of non-minority-owned firms.²³⁵

231. Id.

232. <https://www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm>. These surveys have been discontinued. They are referenced to provide some historical context.

233. See Blanchflower, D. G., Levine. P. and Zimmerman, D., "Discrimination In The Small Business Credit Market," *Review of Economics and Statistics*, (2003); Cavalluzzo, K. S. and Cavalluzzo, L. C. ("Market structure and discrimination, the case of small businesses," *Journal of Money, Credit, and Banking*, (1998).

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

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

- Another study by Fairlie and Robb found minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses.

E. Evidence of Disparities in Access to Human Capital

There is a strong intergenerational correlation with business ownership. The probability of self-employment is significantly higher among the children of the self-employed. This generational lack of self-employment capital disadvantages minorities, whose earlier generations were denied business ownership through either *de jure* segregation or *de facto* exclusion.

There is evidence that current racial patterns of self-employment are in part determined by racial patterns of self-employment in the previous generation.²³⁷ Black men have been found to face a “triple disadvantage” in that they are less likely than White men to: 1. Have self-employed fathers; 2. Become self-employed if their fathers were not self-employed; and 3. To follow their fathers into self-employment.²³⁸

Intergenerational links are also critical to the success of the businesses that do form.²³⁹ Working in a family business leads to more successful firms by new owners. One study found that only 12.6% of Black business owners had prior work experiences in a family business as compared to 23.3% of White business owners.²⁴⁰ This creates a cycle of low rates of minority ownership and worse outcomes being passed from one generation to the next, with the corresponding perpetuation of advantages to White-owned firms.

Similarly, unequal access to business networks reinforces exclusionary patterns. The composition and size of business networks are associated with self-employment rates.²⁴¹ The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.²⁴² Minorities

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

237. Fairlie, R.W., “The Absence of the African-American Owned Business, An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, Vol. 17, 1999, pp 80-108.

238. Hout, M. and Rosen, H. S., “Self-employment, Family Background, and Race,” *Journal of Human Resources*, Vol. 35, No. 4, 2000, pp. 670-692.

239. Fairlie, R.W. and Robb, A., “Why Are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital,” *Journal of Labor Economics*, Vol. 24, No. 2, 2007, pp. 289-323.

240. *Id.*

241. Allen, W. D., “Social Networks and Self-Employment,” *Journal of Behavioral and Experimental Economics (formerly The Journal of Socio-Economics)*, Vol. 29, No. 5, 2000, pp. 487-501.

242. “Increasing MBE Competitiveness through Strategic Alliances” (Minority Business Development Agency, 2008).

and women in our interviews reported that they felt excluded from the networks that help to create success in their industries.

F. Conclusion

The economy-wide data, taken as a whole, paint a picture of systemic and endemic inequalities in the ability of firms owned by minorities and women to have full and fair access to SAWS' contracts and associated subcontracts. This evidence supports the conclusion that absent the use of narrowly tailored contract goals, these inequities create disparate impacts on M/WBEs that may need to be addressed through race-conscious measures.

VI. QUALITATIVE EVIDENCE OF RACE AND GENDER BARRIERS IN SAN ANTONIO WATER SYSTEM'S MARKET AREA

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities. This evidence is relevant to the question of whether despite the operations of SAWS' Small, Minority-, Woman- and Veteran-Owned Business ("SMWVB") Enterprise Program, M/WBEs continue to face discriminatory barriers to their full and fair participation in SAWS opportunities. Anecdotal evidence also sheds light on the likely efficacy of using only race- and gender-neutral remedies designed to benefit all small contractors to combat discrimination and achieve the objectives of SAWS' SMWVB program. As discussed in the Legal Chapter, this type of anecdotal data has been held by the courts to be relevant and probative of whether SAWS may use narrowly tailored M/WBE contract goals to remedy the effects of past and current discrimination and create a level playing field for contract opportunities for all firms.

The Supreme Court has held that anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life."²⁴³ Evidence about discriminatory practices engaged in by prime contractors, agency personnel, and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects.²⁴⁴ 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."²⁴⁵ "[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

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

244. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1172 (10th Cir. 2000), cert. granted, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001).

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

case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”²⁴⁶

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making, as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not—indeed cannot—be verified because it is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”²⁴⁷ Likewise, the Tenth Circuit held that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”²⁴⁸

To explore this type of anecdotal evidence of possible discrimination against minorities and women in SAWS’ geographic and industry markets and the effectiveness of its current race-conscious and race-neutral measures, we conducted nine small group and individual business owner and stakeholder interviews, totaling 80 participants. We also received written comments. We met with a broad cross section of business owners from SAWS’ geographic and industry markets. Firms ranged in size from large long-established prime contracting and consulting firms to new market entrants and established family-owned firms. We sought to explore their experiences in seeking and performing public and private sector prime contracts and subcontracts with SAWS, other government agencies, and in the private sector. We also elicited recommendations for improvements to SAWS’ SMWVB Program.

Many minority and woman owners reported that while some progress has been made in integrating their firms into public and private sector contracting activities through race- and gender-conscious contracting programs like SAWS’, significant barriers on the basis of race and/or gender remain. There was near universal agreement that race- and gender-based contract goals remain necessary to ensure equal opportunities to compete for the agency’s work.

We also conducted an electronic survey of firms in SAWS’ market area about their experiences in obtaining work, marketplace conditions and SAWS’ SMWVB program for M/WBEs. One-hundred and forty-seven M/WBEs responded to the survey. The results were like those of the interviews. Among minority- and woman-owned firms, more than a third (36.1%) reported they still experience barriers to equal contracting opportunities; a quarter (24.5%) said their competency was questioned because of

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

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

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

their race or gender; and almost 20% (18.4%) indicated they had experienced job-related sexual or racial harassment or stereotyping.

A. Business Owner Interviews

The following are summaries of the issues discussed. Quotations are indented and may have been shortened for readability. The statements are representative of the views expressed over the many sessions by numerous participants.

We have also appended a summary of the anecdotal results of the numerous disparity studies we have conducted in Texas.²⁴⁹

Many minority and woman owners reported that they continue to experience negative assumptions and perceptions about their competency and capabilities.

A lot of times people are surprised that and it's almost insulting that, "Oh wow, you guys are pretty good for a minority firm". That happens.

I saw the [prime contractor's] project manager's [look in his] eyes, very surprised and just impressed and so I felt really good, right? But there was a phrase that was mentioned and made me feel a little bad, was, "Wow, for an M/WBE and a small business, you are so qualified, and you seem so organized and well-documented".

That's a perception that [MBEs fail to do the work] we as a group have to constantly go up against.

Some minority consultants had experienced overt racism.

I've been called nigger.... We're only 8% of the population.... I certainly don't live my business out of thinking, "Oh, I'm going to be discriminated". But you asked the question. And so yes, we have been. Verbally, on paper, all of it.

Racism is alive and kicking.... When I was a young engineer working in Houston, you can imagine what that was like being Hispanic. I purposely went to the University of Texas. I tried to go into the best school that I can get into because I wanted to dispel a lot of the myths about us: that we don't know what we're doing, that we're lazy.... I went to Houston and pretty much within the first week, I felt like I was being discriminated pretty much every day.... It was very disheartening because, and I get emotional when I talk about it because I've always dreamed about being an engineer. I know that I picked the right profession, but I was attacked so much that I remember for the first

249. Appendix E: Qualitative Evidence from Texas Disparity Studies

year, I questioned whether I made the right decisions. I questioned maybe I'm not cut out to be an engineer, and maybe I picked the wrong profession. And it was just very, very disheartening. It really felt like it was breaking me down. And then I just got up one day, and I said, "No, this isn't right. I mean, these people they're not going to beat me down. This is what I want to do." And so, it took having to move companies and do some things. And once I did that, I found tremendous success. I found that hey, I'm a good engineer, and I can do business development, and I'm not afraid to go into White America and sell myself. I mean, there were comments that were made in front of me almost on a daily basis. And I would sit there and I would think to myself, "do these people know that I'm Hispanic too?" It was just horrible.... [Things have] gotten better in the sense that some of these other firms, Anglo firms, they're a lot more careful what they say in front of us, but I know what they're thinking.

Some women had also labored under sexist behaviors and attitudes.

The glass ceiling is why I started my company. I was working for an international firm and I was one of two women in the world that were middle managers, and I didn't see that we were ever going to go higher than middle management. And we were being paid less than our male counterparts. This was in the eighties, but yeah. I found myself working weekends and working so hard to try to make a great impression and get salary increase. Back in the eighties, the men still really talk down to women in engineering. They can't get away with that these days like they could back then. I was there one weekend and the phone rang and I answered it and the person said, "Well, what are you doing there on a weekend?" I'm like, yeah, that's a good question because nobody else is ever here. If I'm going to work this hard, I might as well work for myself and reap the benefits. So, I packed up all of my stuff that weekend.

Being the only female, automatically you were the person that was in charge of taking notes and the person that was automatically in charge of counseling, an end-[to-]end-user as to why they couldn't have their way on the websites. And so, yes, I have been severely discriminated against, all my career in IT.

Sometimes when there are meetings called, us females are left out. We're not included in the meetings.

Both minorities and women reported that it can be difficult to break into entrenched networks.

Breaking into city work is definitely its own challenges. So, the old boy club is in full regalia.

[San Antonio is] very much a cliquish, who-you-know type of city.

If you're already not already in, it's hard to break in as an unknown or who's not done work with SAWS.

The good old boy network is alive and kicking in certain areas and that's why I talk about if this program goes away, it'll be the end of us, because most of the people in leadership positions to do land development, it's hard to break into that business because it's the good old boy network.

There was near unanimous agreement that M/WBE contract goals remain critical to ensuring that minority and woman firms get work.

Without these programs, definitely we would not be in business.

If this program changes, it will be the end of a lot of firms, probably including my firm. I mean, definitely we would struggle to grow because we're too young, we're not where we need to be yet.

It's definitely something where they're not looking at us as partners and team members where we bring in value and expertise and especially in the local relationships and understanding of our systems and of our neighborhoods and of our community, but they just reach out to us because they want that percent and that's a big problem that we're facing and if the M/WBE requirements don't get more stringent or get loosened up or disappear, then a lot of us will go out of business.

Very seldom do you get a call if a goal is not set. There have been times when we've called and said, "We'd like to see if we can team with you on this." And they'll just blatantly say, "Well you know there was no goal, what difference does it make?" You know we work with you; you know we bring credence to your team. So that is kind of a slap in the face, to be quite honest with you. So, we see that a lot, where if it's not encouraged or there is no goal, there is no opportunity for us.

If the goal was not there, you can often get forgotten about. Because sometimes it's the squeaky wheel gets the grease, so that the goals definitely help in my opinion.

It's been worth it to get this certification because we picked up business in other places that really fits in my model of doing work. And, without the certification, I wouldn't have it.

Race- and gender-based measures were especially helpful for newer businesses.

It does force some of these companies to have to use you at some point if they don't know you. And as [name] mentioned, sometimes when you've already been established, they will use you outside of projects where there is no goal outside of any type of requirement. But I do think it is beneficial at the beginning.

If you're new with your company [or] maybe not new in the business, but you just formed a company, it definitely helps. People are looking for you, they're sending you information. They're wanting to know who you are. It does open those doors to make that a contact and have those networking opportunities. And then that way, if they do have opportunity aside from any kind of program, then hopefully they'll reach out to you, and you're reaching out to them to let them know you're there and what products or web services do you have available. So, I think the program is important.

B. Anecdotal Survey

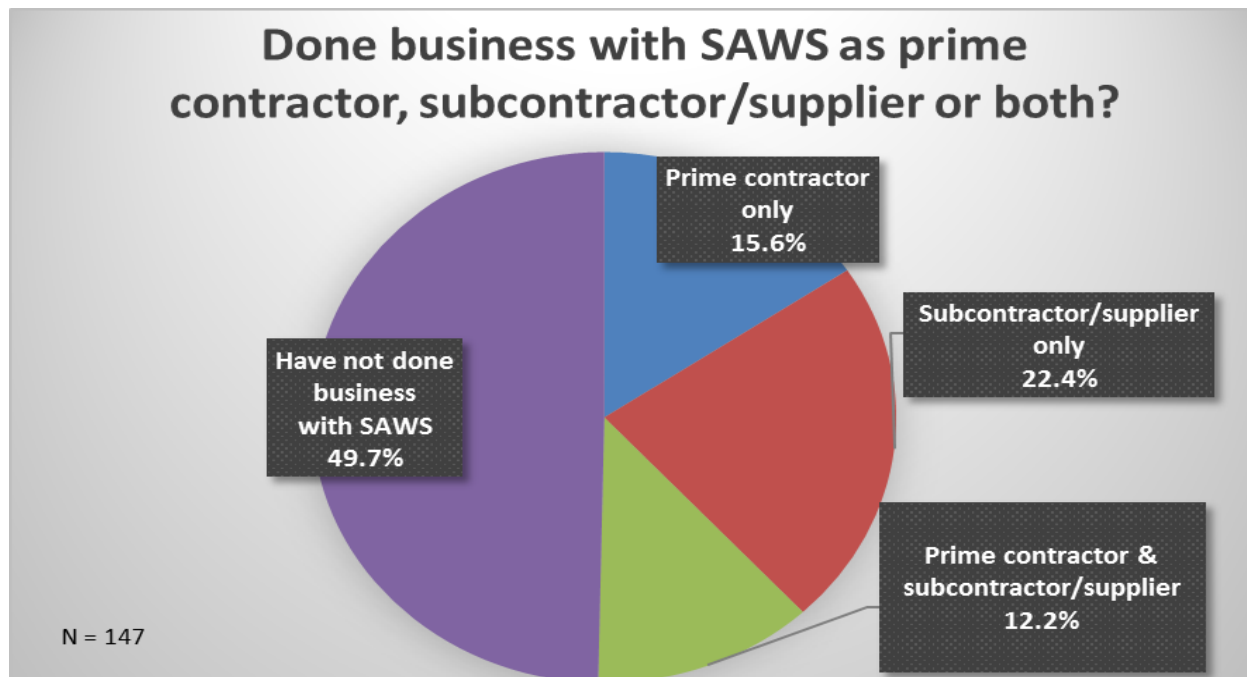
We also conducted an anecdotal, electronic survey of firms on our Master M/W/DBE Directory; prime firms in the contract data file; firms identified through our outreach efforts; and firms that provide written inquiries or comments. The survey was comprised of up to forty-six closed- and open-ended questions and replicated the topics discussed in the business owner interviews. The questions focused on doing business in SAWS' market area, race- or gender-based barriers and negative perceptions, access to networks and information, experiences in obtaining work and capacity development.

The survey was emailed to 2,011 people, every week for five weeks. Telephone follow-up was conducted to encourage firms to complete the survey and stimulate responses. Two-hundred and fifty-nine gross responses were received. After accounting for incomplete and non-relevant responses, usable responses equaled 180 for a net response rate of 8.9%. One hundred and forty-seven minority- and woman-owned firms completed the survey for a 7.3% net response rate. A total of 33 publicly held and non-M/WBE firms completed the survey, representing a 1.6% net response rate.

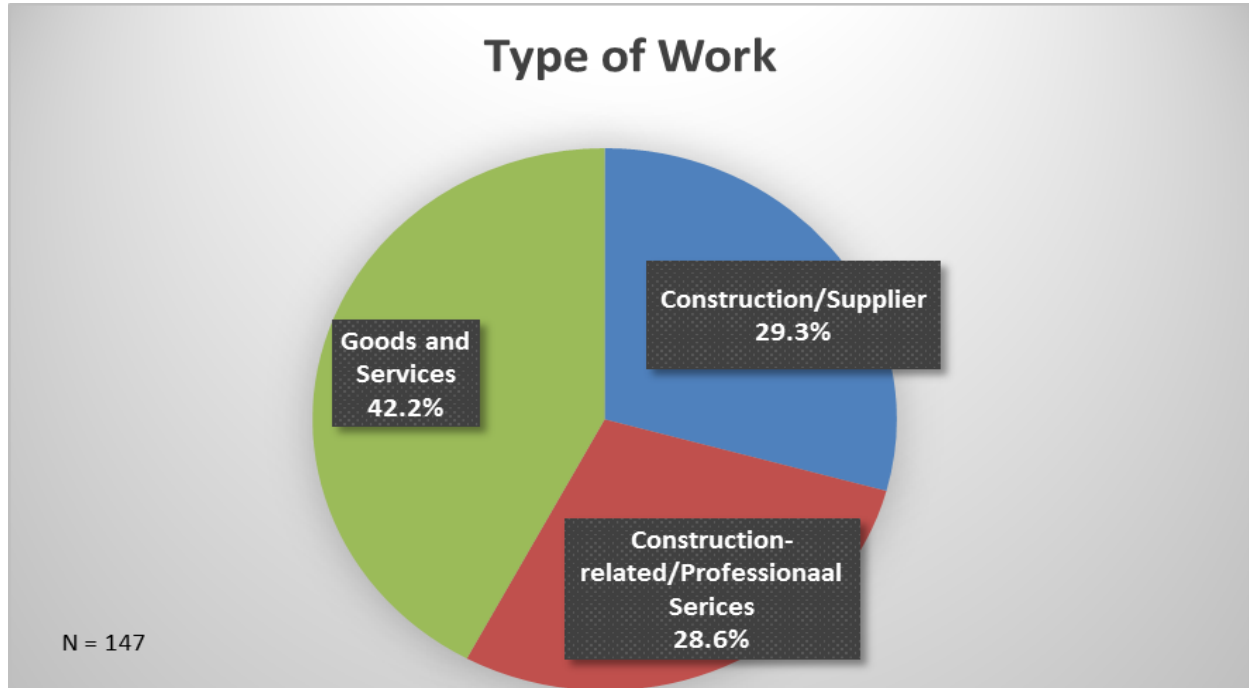
1. Respondents' Profiles

Distribution of race, gender and contracting category of survey respondents:

Form Ownership Group	Construction	Construction Related Services (includes Professional Services)	Services & Commodities	Total
African American	5	4	18	27
Hispanic	27	25	22	74
Asian-Pacific/ Subcontinent Asian American	1	3	3	7
Native American/ Alaska Native	1	1	0	2
Non-Minority Women	9	9	19	37
M/WBE Total	43	42	62	147
Publicly Held/ Non-DBE Total	12	21	0	33
Respondents Total	55	63	62	180



Among M/WBEs, construction firms accounted for 29% of the responses; construction-related services firms for 29% and goods and services firms for 42%.

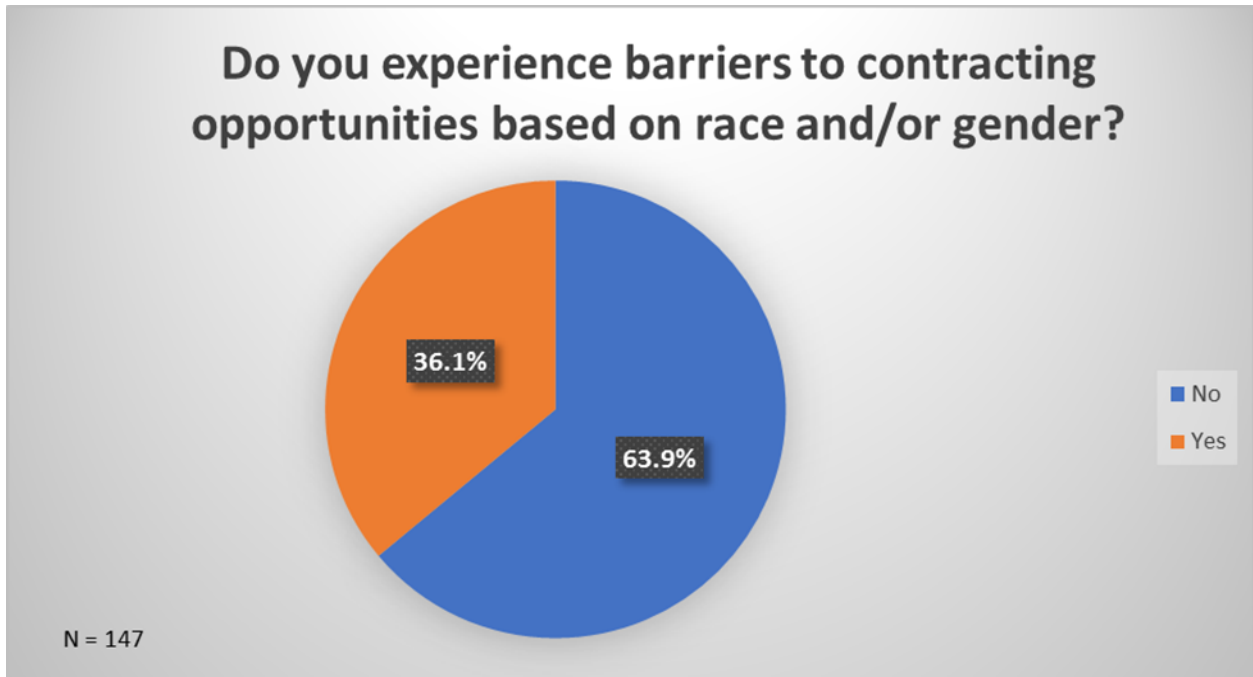


Among M/WBEs, 15.6% of the firms had worked on SAWS projects only as a prime contractor or consultant; 22.4% had worked only as a subcontractor; 12.2% had worked as both a prime contractor or consultant, and as a subcontractor or subconsultant; and 49.7% had not participated on any SAWS contracts. The majority (96.6%) of minority- and woman-owned firms responding were certified.

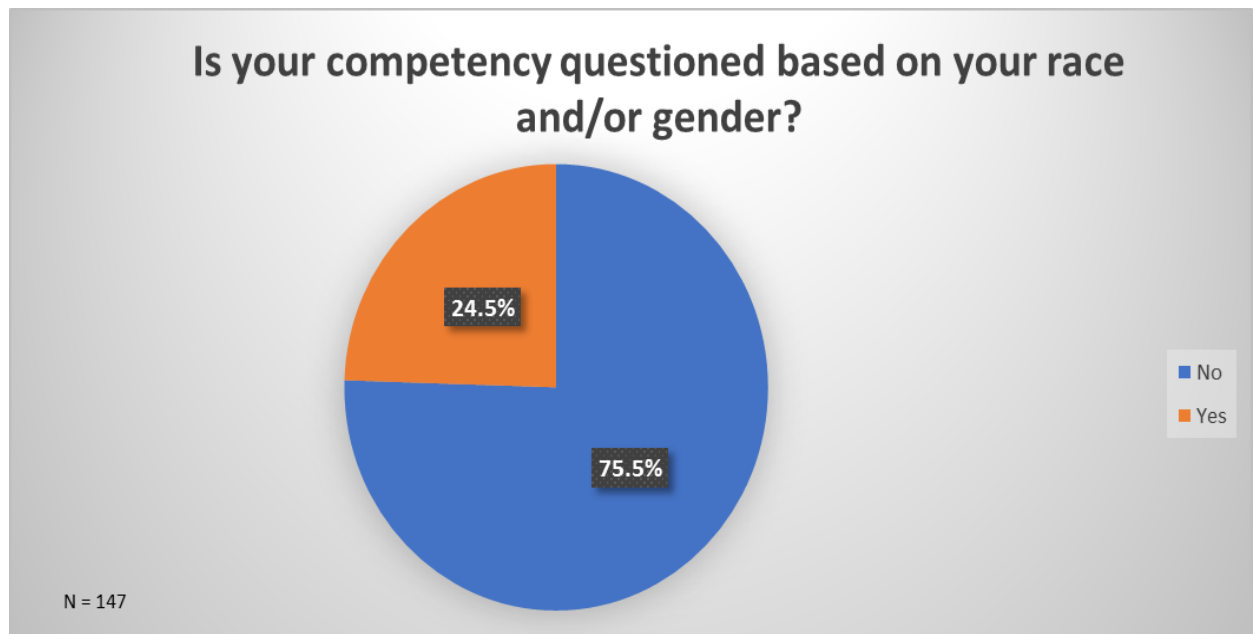
2. Results of the Survey

a. Discriminatory Barriers and Perceptions

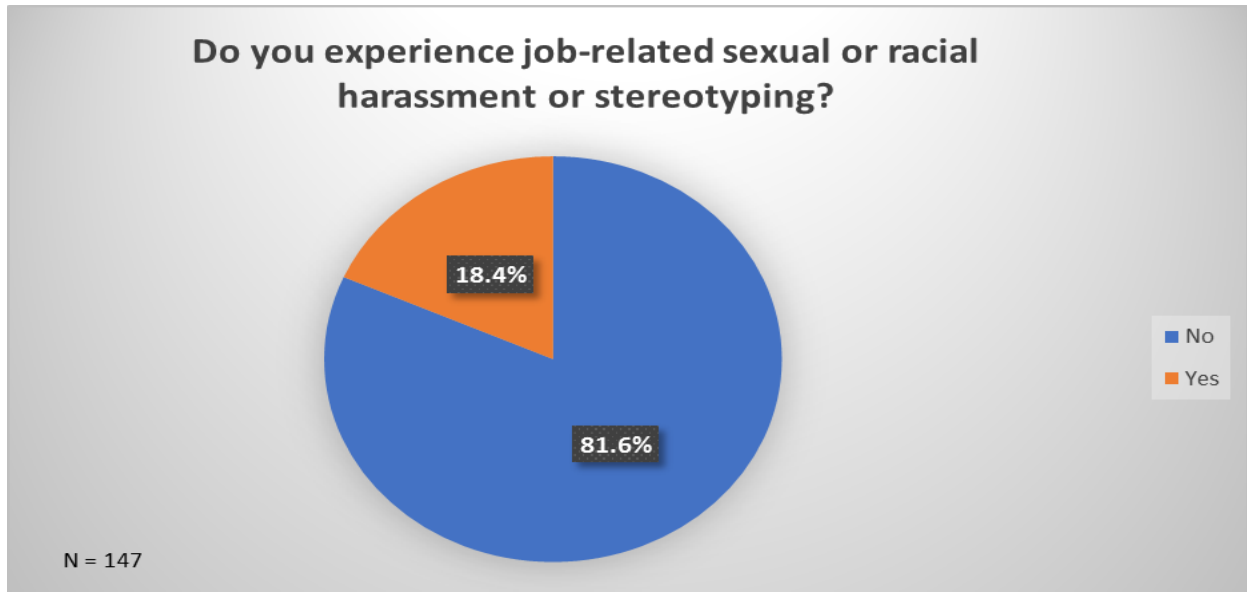
More than a third (36.1%) answered yes to the question “Do you experience barriers to contracting opportunities based on race and/or gender?”



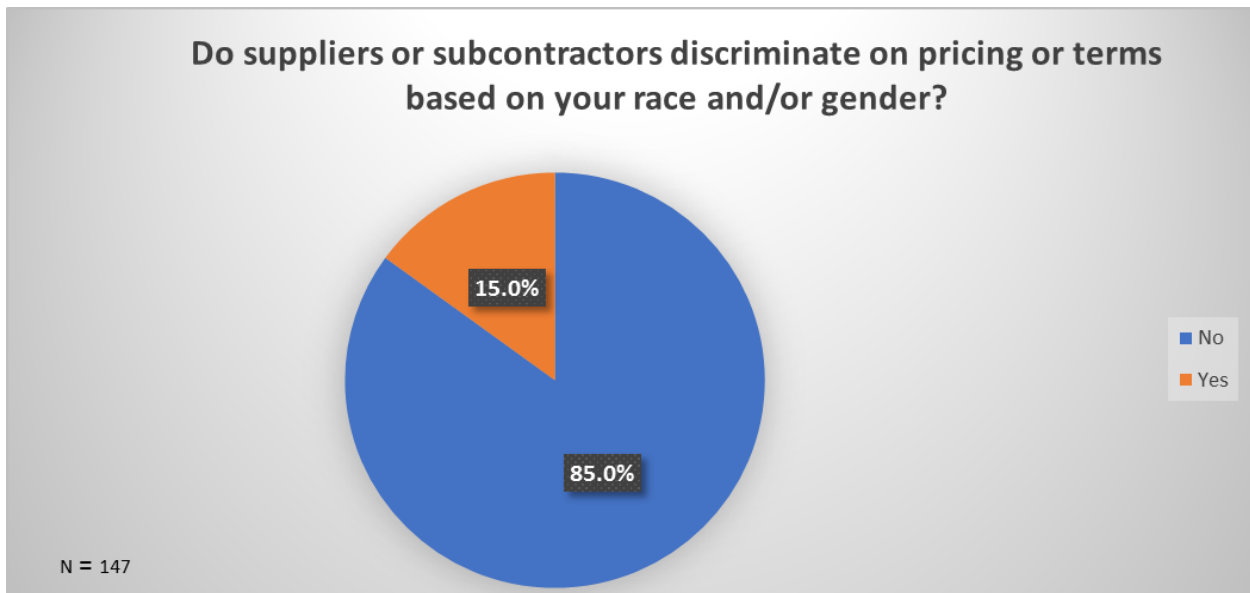
Almost a quarter (24.5%) answered yes to the question “Is your competency questioned based on your race and/or gender?”



Almost a fifth (18.4%) indicated that they experience job-related sexual or racial harassment or stereotyping.

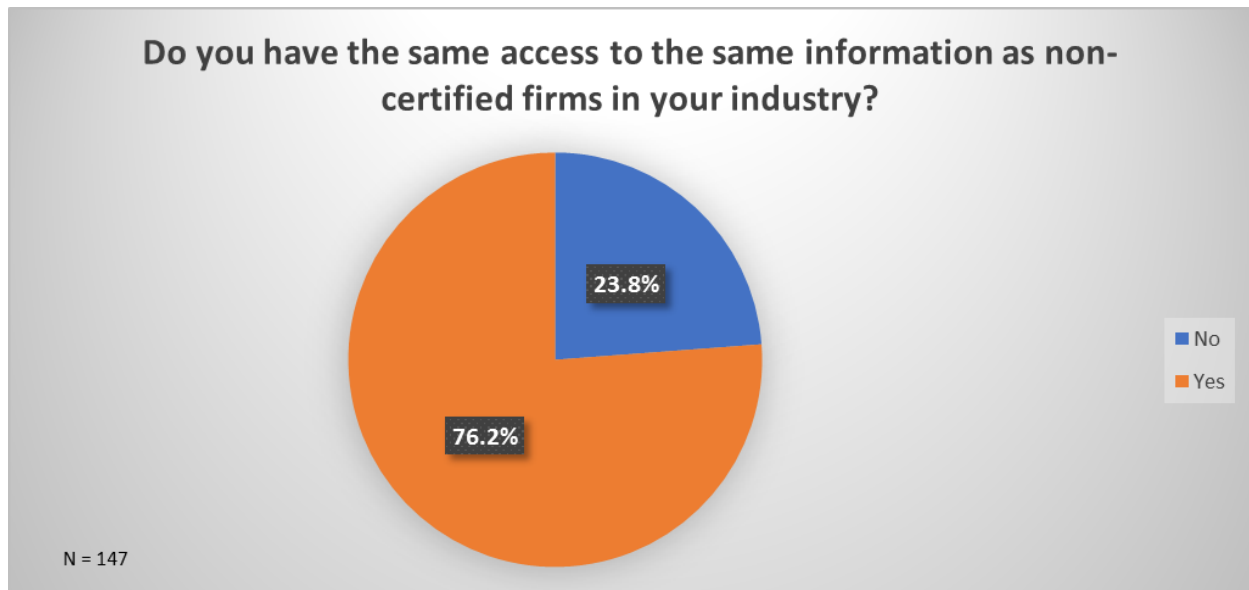


Fifteen percent stated that they experience discrimination from suppliers or subcontractors because of their race and/or gender.

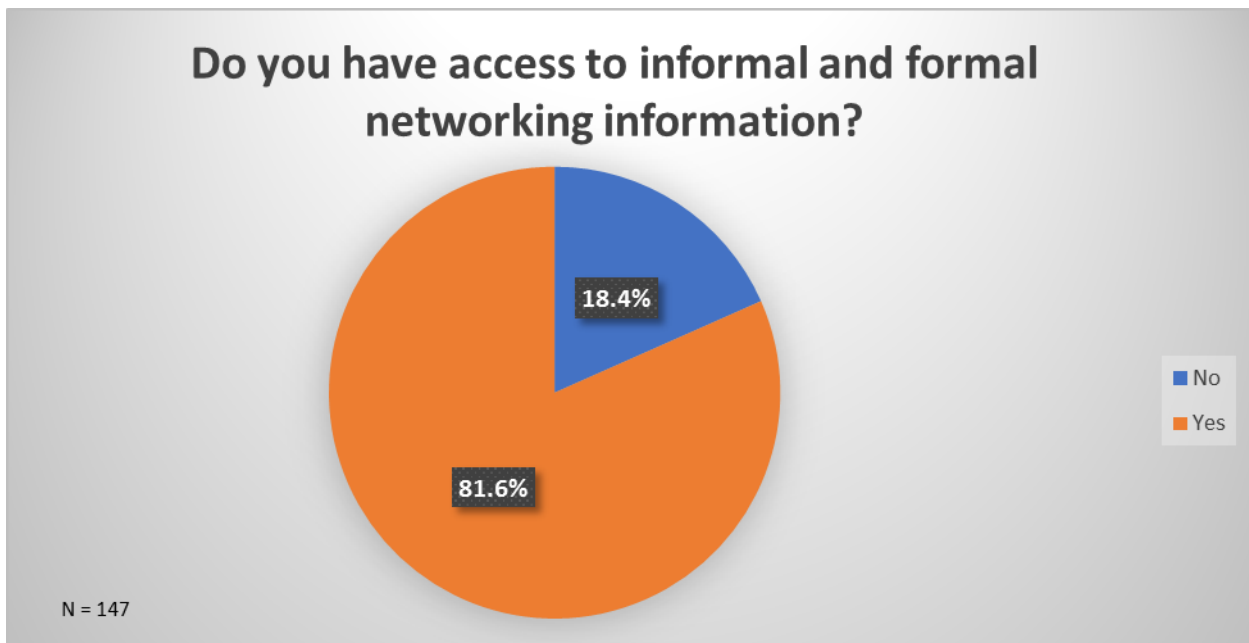


b. Access to Formal/Informal Business and Professional Networks

Almost a quarter (23.8%) of M/WBE respondents reported that they did not have the same access to information as non-certified firms in their industry.



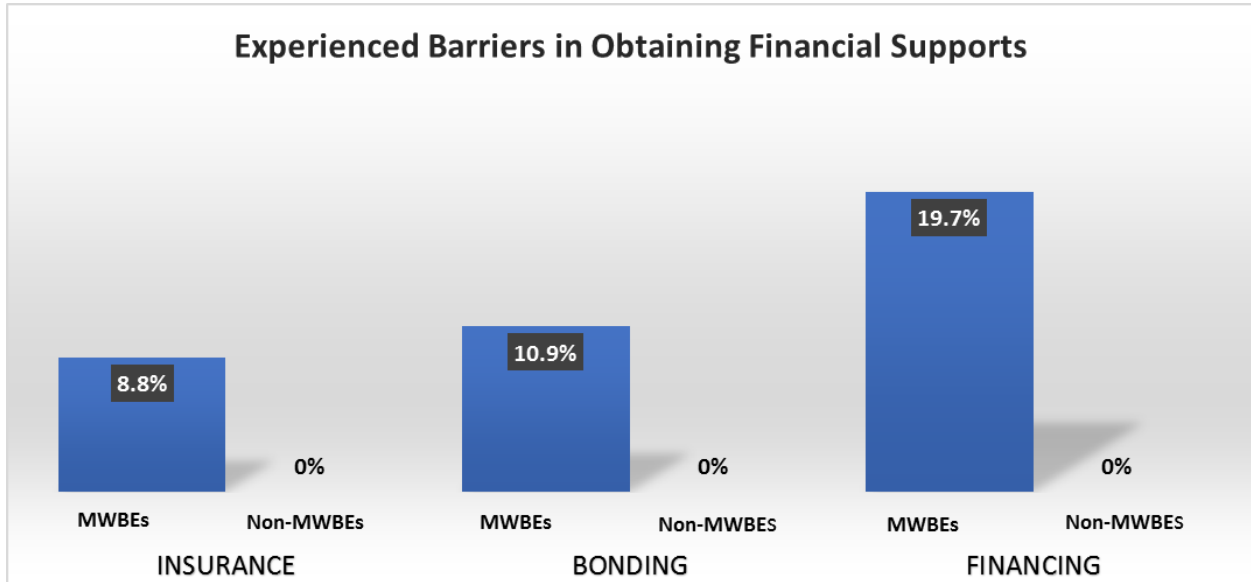
Almost a 20% answered no to the question, “Do you have access to informal and formal networking information?”



c. Access to Financial Supports

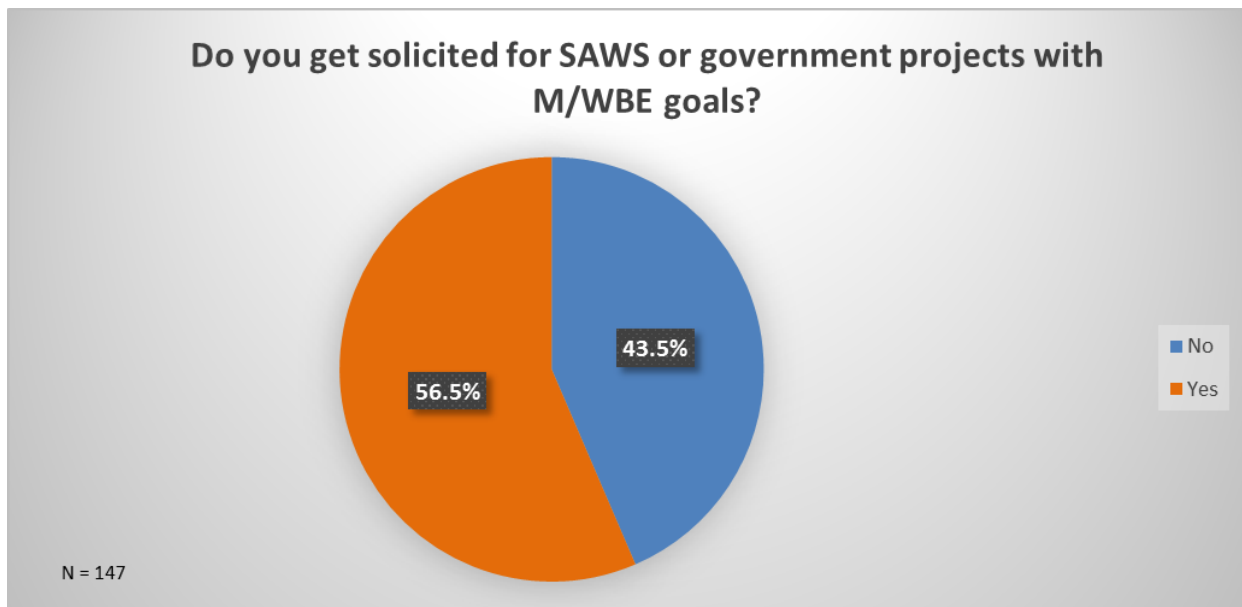
Among M/WBEs, a little less than nine percent reported experiencing barriers to obtaining insurance; almost 11% reported barriers to obtaining surety bonding services; and almost a fifth (19.7%) reported experiencing barriers to obtaining financing and business capital. In contrast, non-M/

WBE firms reported zero difficulties in obtaining any of these financial supports.

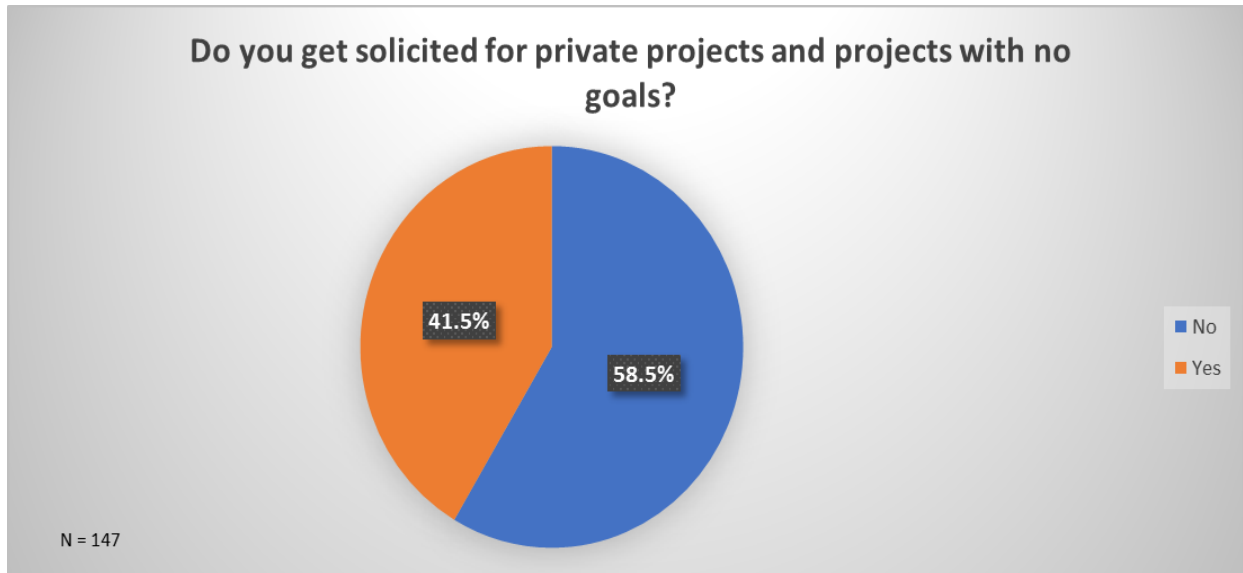


d. Obtaining Work, Contract Size vs. Capacity and Payment on an Equal Basis

A little over half (56.5%) of M/WBEs reported that they are solicited for SAWS or government projects with M/WBE goals.



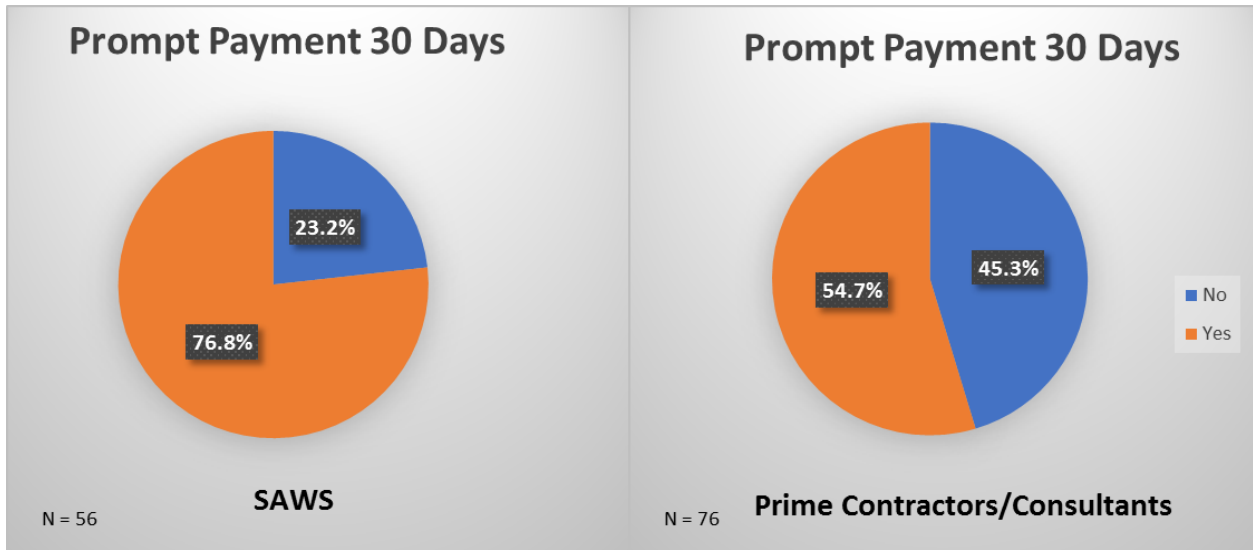
A little over two-fifths (41.5%) of M/WBE respondents reported they are solicited for private projects and projects without goals.



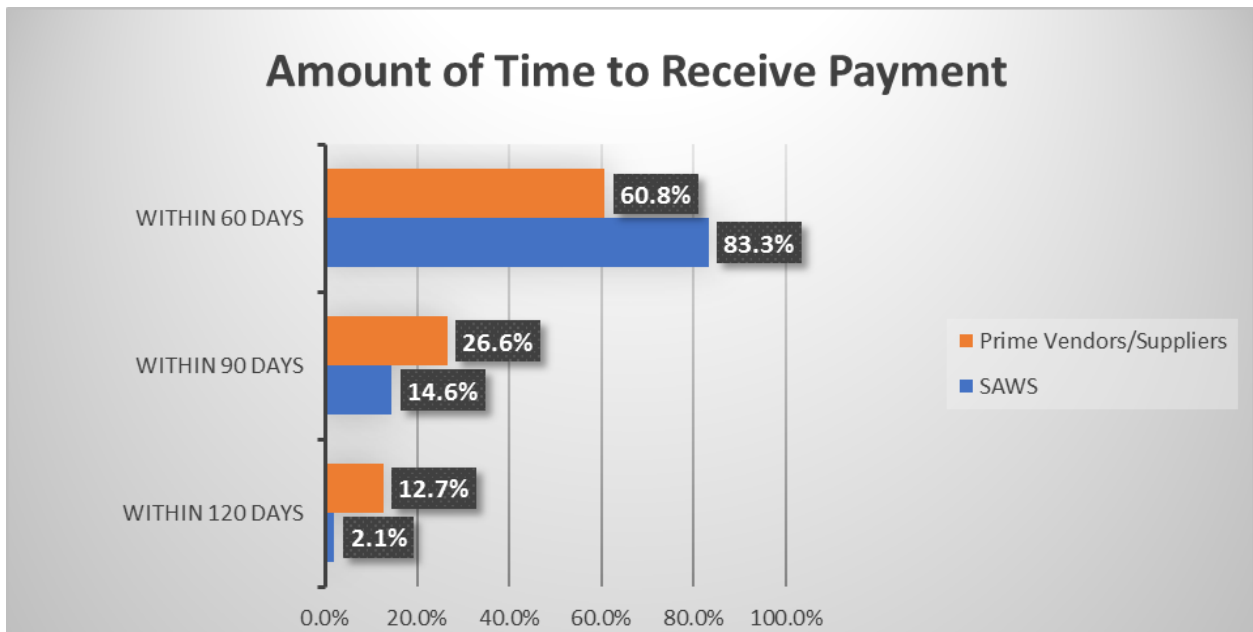
Over 58% said their firm's contract size was either well below or slightly below the amount they are qualified to perform.



Over 75% of the respondents who had reported doing work for SAWS stated that SAWS pays them promptly. However, only 54.7% who had reported doing work for prime contractors/consultants said that prime contractors/consultants pay promptly.



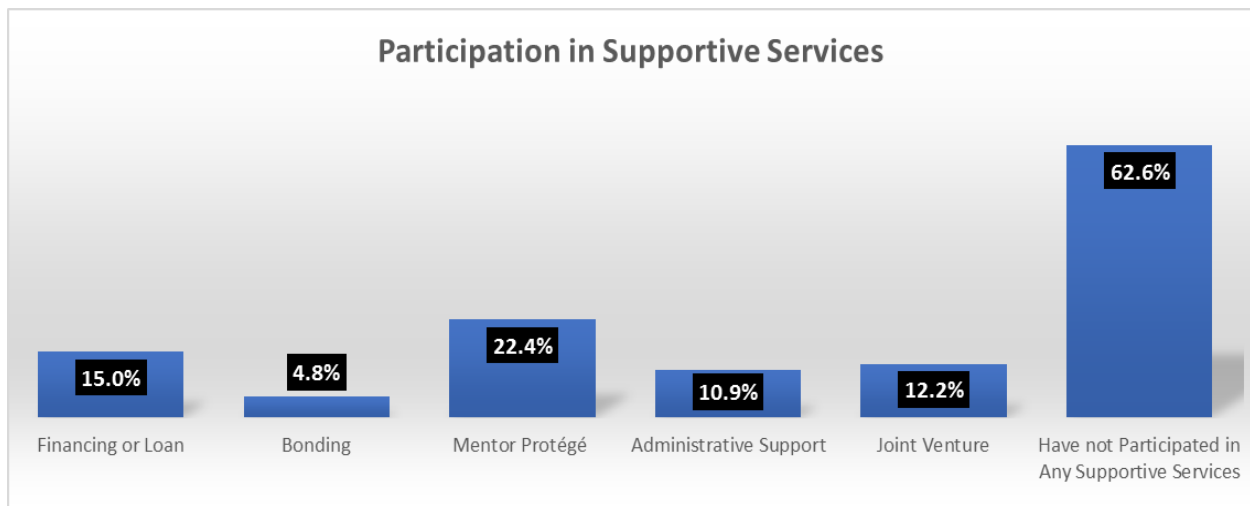
Almost 84% of M/WBEs performing work for SAWS reported receiving payment within 60 days; 14.6% within 90 days; and 2.1% within 120 days or more. Prime vendors were reported to pay more slowly. Almost 61% said prime vendors paid within 60 days; 26.6% within 90 days; and 12.7% within 120 days or more.



e. Capacity Development

Over a third (37.4%) of M/WBEs reported participating in M/WBE business support or development activities: 62.6% indicated they had not participated in any of these programs.²⁵⁰

- 15.0% had participated in financing or loan programs.
- 4.8% had accessed bonding support programs.
- 22.4% had participated in a mentor-protégé program or relationship.
- 16.9% had received support services such as assistance with marketing, estimating, information technology.
- 12.2% had joint ventured with another firm.



C. Written Survey Responses about San Antonio Water System’s Market Area

Open-ended survey responses were consistent with the information provided in the business owner interviews. M/WBE responses centered on negative assumptions and perceptions about their competency and capabilities, and barriers to getting SAWS work. Responses to these questions have been categorized and are presented below.

250. “Not Applicable” includes subcontractors that would not have been paid by SAWS and firms that had not received SAWS prime contracts.

Minority and woman firms indicated they continue to experience race and gender discrimination. They reported negative attitudes concerning competency, skill, and qualifications that reduced their ability to obtain contracts.

People just don't take you serious [sic] and you don't get access or treated fairly. I'm used to it as I'm African American and nothing has ever been handed to me!

Being women owned and African American doesn't help. I see general contractors helping subcontractors with insurance bonding and materials but not us.

It's based on race, despite living in a high Hispanic city, we are often dismissed as not as competent.

Procurement and purchasing department and staff in our 20+ years, seem to think that because we are Hispanic, we cannot fulfill the tasks of the contracts.

Are you sure your company [as an MBE] can perform this work?

There are occasions where it appears that the contracting agency representative making the contract award just prefers to work with someone like him/her.

There are overtones that we don't know what we're doing or our integrity is questioned. Additionally, talking down to us is another insult we endure.

On a construction site, I once heard an employee say that we were a "check the box" hire.

Management is dismissive.

Many women respondents reported overt and covert stereotyping and sexism that impeded their ability both to obtain contracts and to demonstrate their capabilities on current contracts.

It's a man's world.

Negative behavior directed at women from some males, e.g., rudeness, disrespect, not listening to women, interrupting women, talking down to women (mansplaining), saying things that are just on the edge of sexual harassment to women, to see if there's a reaction.

Sexual – I am referred to as "darlin'", & "baby" & talked down to frequently.

The tone of my voice! I'm sure if I was a man and spoke forcefully no one would question me. Or, when I ask questions or oppose the client. I'm being female and sensitive.

Some people don't want to talk to a woman business owner.

We are not provided the opportunity to demonstrate our ability to provide excellent service because we are women owned.

Our team has project management and process improvement experience, but we are perceived as less capable because we are a majority of female employees.

Stereotyping is a norm for Hispanic women who have overcome adversity without a college degree.

Sometimes, a contractor or subcontractor on a job site will look at and speak to an unlicensed male intern who I brought to the site with me, rather than me.

It is assumed that I am better at interior design.

Being a woman in a male dominated industry was frequently cited as an everyday burden.

As a female business owner in a male dominated industry, I am often stereotyped.

Female firms are not considered for typical male contracts or industry that is male dominated.

[WBEs experience barriers] because of being a female owned company in a male dominated industry.

As a minority woman in construction, we are not given the fair opportunities as white male owned firms.

I have had to argue with contractors about my knowledge and competency to be given a chance. It is assumed I don't understand their needs because women don't know anything about "men's work".

The majority of General Contractors utilize the good ol[e] boy system. I believe they think I don't know anything about construction since I am female.

Engineering and construction to this day is [sic] heavily male dominated with a lot of communication channels and ways to create opportunities established decades ago.

It is still a male dominated network of "good ole boys". ... I do not look like I am an IT person. That causes severe stereotype. It is assumed that I do not know IT, though I was born in IT, possess a CS degree with a 4.0 grade average. ... It is assumed that my male counterparts that look like IT guys are smarter in IT than I am.

Many minority and woman firms reported entrenched relationships and "good 'ole boy" networks that impeded access to contract opportunities.

The good old boy system is alive and well, preference provided to friends and associates are normally within the larger firms. The selection committees and staff continue the same old practices of giving work to their friends and associates at these firms. We never see any real efforts to engage small minority businesses, only want to check the box with meetings and minimum attempts to provide opportunities to small businesses.

Our industry is a typical "good ole boy" industry and jobs are granted through informal channels.

Non-certified firms have friends and associates within these organizations that give them an unfair advantage.

It appears the same firm(s) manage to keep the contract for years, and any RFPs are merely an exercise with no real intent of working with a proven company.

The same agencies, mostly male and/or white-owned and run businesses get ALL the business.

Again, old standing relationships and methods of communicating still exist.

It has been said, it's not what you know, but who you know. Unfortunately, that has held true in many circumstances where we had no opportunity even though we had past performance meeting all requirements.

I do not know what bids are available. Large companies working with established manufacturers will work with same group they have for past 100 years.

While SAWS does not do this, other agencies tend to want to work with former employees who tend to be non-minority men.

Unless you break into the large business world, secrets are not shared. It has been said numerous times that, it's not what you know, but who. A truer statement has never been said.

We don't golf with them.

Some M/WBEs commented on pressure to reduce their pricing relative to non-M/WBE firms.

DMWBE[s] are simply asked "what is your bid", majority firms are asked "I have two bids totaling XXXX can you beat that".

Late pay [by prime contractors and suppliers] and [they] always try to discount your rates or prices for services.

Proprietary pricing is given [to preferred firms].

Many Prime contractors try and force you into lower pricing knowing minority small businesses need opportunities.

Not uncommon [for prime contractors and suppliers] to reduce price and expand payment terms.

We have attended many pre-proposal meetings where primes have made the statement, "why do I need to sub-contract." When communicated [that] it's a requirement, they in turn force minority small businesses to lower pricing knowing if they say no, they can state they did their "good faith effort".

I am often asked to lower my fees by institutions that I do work for and am asked to perform work that I am not always compensated for. We often receive small projects that are more difficult to make money on, because they require the same upfront effort. But then we don't get larger projects, where we are more efficient. I was told by a sub-consultant that our firm seems to get projects with lower fees that other equally qualified firms.

As an up-and-coming GC, we have noticed that some firms are getting proprietary pricing and this is hindering our company from competing.

M/WBE respondents reported they did not have access to information that would help them to compete on an equal basis.

As an MBE we do receive some mail regarding networking opportunities, but [we] might not have all of the information possible.

Biggest issue is networking and existing structure.

The pre-solicitation information advantages obtained by larger firms ... [who] become advisors to the client before the RFQ release. Many times, M/WBE's are not a part of that network.

I do not get as many [sic] networking event information as my counterparts.

I have seen where some have more information than I do and I have all the certs.

[What would help is] continued networking amongst utilities to seek opportunities. The challenge here is time and resources to cover everything.

No access [to networking].

Don't have the connections.

No outreach to my community.

Many male-dominated IT companies will bring bids to me that I had no idea about, especially SAWS.

Better, quicker information on upcoming projects [would be helpful].

It would be great to have a matching industry mixer/get together to know prime vendors and match them with subs.

Virtual networking introduction and programs to connect small businesses with prime contractors. A lot of information and not enough exposure exist to connect primes with subs and, if there is, we have no knowledge of such.

Consistent opportunities to win work that are adequately advertised.

Contract awards, marketing support, letting agencies know who we are and what we are capable of doing for the agencies.

Lack of access to capital and financial support services, particularly insurance, was cited as a major impediment in taking on more work and the ability of M/WBE firms to successfully compete.

Having access to lines of credit has been a challenge.

I am in an industry that is high risk and insurance currently is difficult to get and maintain.

I don't need bonding in my work. But Insurance just keeps going up and up.

I have the same exact type of company as my competitors and [have been] in business over 10 years. Yet the ins[urance companies that] my competitors use tell me I am not a "fit" for who [sic] they cover.

Some contracts require high liability insurance that is too costly for a relatively small firm.

I have tried for a year to obtain a bond but the requirements of having released properties or endorsing equipment is difficult.

No experience or track record so we have been denied on several occasions. Also, our bonding has been more expensive than those that regularly bond projects.

This is an ongoing problem of many years. You require the same bonding of professional services as construction for example.

D. Conclusion

Consistent with other evidence reported in this Study, the interviews and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in SAWS' market area. Many minority- and woman-owned businesses reported experiences with racist or sexist behaviors and perceptions in their interactions in the overall marketplace. Reduced opportunities to obtain contracts, less access to formal and informal networks, and greater difficulties in securing financial support relative to non-M/WBEs in their industries were common themes in both the business owner interviews and survey comments. Many indicated that they were working well below their capacity.

Anecdotal evidence may “vividly complement” statistical evidence of discrimination. Though not sufficient in and of itself, anecdotal evidence can serve as an essential tool for a governmental entity to successfully defend a SMWVB type program. While not definitive proof that SAWS needs to continue to implement race- and gender-conscious remedies for these impediments, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with the numerous pieces of statistical evidence assembled, are relevant and probative of the SAWS' evidentiary basis to consider the use of race- and gender-conscious measures to ensure a level playing field for its contracts.

APPENDIX A:

FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the report, multiple regression statistical techniques seek to explore the relationship between a set of independent variables and a dependent variable. The following equation is a way to visualize this relationship:

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

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu$$

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

The statistical technique seeks to estimate the values of the constant term and the coefficients.

In order to complete the estimation, the set of independent variables must be operationalized. For demographic variables, the estimation used race, gender and age. For industry and occupation variables, the relevant industry and occupation were utilized. For the other variables, age and education were used.

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. Since this report examined the San Antonio Water System, the analysis was limited to data from Bexar, Comal, Guadalupe, Travis, Williamson, and Hays Counties. The coefficient for the new variable showed the impact of being a member of that race or gender in the metropolitan area.

APPENDIX B:

FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

Probit regression is a special type of regression analysis. Probit regression analysis is used to explore the determinants of business formation because the question of business formation is a “yes’ or “no” question: the individual does or does not form a business. Hence, the dependent variable (business formation) is a dichotomous one with a value of “one” or “zero”. This differs from the question of the impact of race and gender of wages, for instance, because wage is a continuous variable and can have any non- negative value. Since business formation is a “yes/no” issue, the fundamental issue is: how do the dependent variables (race, gender, etc.) impact the probability that a particular group forms a business? Does the race or gender of a person raise or lower the probability he or she will form a business and by what degree does this probability change? The standard regression model does not examine probabilities; it examines if the level of a variable (*e.g.*, the wage) rises or fall because of race or gender and the magnitude of this change.

The basic probit regression model looks identical to the basic standard regression model:

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

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry and occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu$$

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

As discussed above, the dependent variable in the standard regression model is continuous and can take on many values while in the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. The two models also differ in the interpretation of the independent variables’ coefficients, in the standard model, the interpretation is fairly straight-

forward: the unit change in the independent variable impacts the dependent variable by the amount of the coefficient.²⁵¹ However, in the probit model, because the model is examining changes in probabilities, the initial coefficients cannot be interpreted this way. One additional computation step of the initial coefficient must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.*, business formation) occurring. For instance, with the question of the impact of gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the additional computation chance of the coefficient of WOMAN yielded a value of -0.12, we would interpret this to mean that women have a 12 percent lower probability of forming a business compared to men.

251. The exact interpretation depends upon the functional form of the model.

APPENDIX C:

SIGNIFICANCE LEVELS

Many tables in this Report contain asterisks indicating that a number has statistical significance at 0.001, 0.01, or 0.05 levels (sometimes, this is presented as 99.9 percent; 99 percent and 95 percent, respectively) and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This Appendix provides a general explanation of significance levels.

This Report seeks to address the question of whether or not non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing SAWS as it explores whether each racial and ethnic group and White women continue to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (*e.g.*, wages) and the independent variable (*e.g.*, non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say, for example, that this analysis determines that non-Whites receive wages that are 35 percent less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (*e.g.*, non-Whites) and the dependent variable (*e.g.*, wages) – the first sub-question. It is still important to determine how accurate the estimation is. In other words, what is the probability that the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (*e.g.*, non-Whites earn identical wages compared to White men

or non-Whites earn 0 percent less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find the probability that the observed relationship (*e.g.*, -35 percent) is between 0 and minus that confidence interval.²⁵² The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. When a number is statistically significant at the 0.001 level, this indicates that we can be 99.9 percent certain that the number in question (in this example, -35 percent) lies outside of the confidence interval. When a number is statistically significant at the 0.01 level, this indicates that we can be 99.0 percent certain that the number in question lies outside of the confidence interval. When a number is statistically significant at the 0.05 level, this indicates that we can be 95.0 percent certain that the number in question lies outside of the confidence interval.

252. Because 0 can only be greater than -35 percent, we only speak of “minus the confidence level”. This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

APPENDIX D:

UNWEIGHTED AND WEIGHTED AVAILABILITY

Central to the analysis, under strict constitutional scrutiny, of an agency's contracting activity is understanding what firms could have received contracts. Availability has two components: unweighted availability and weighted availability. Below we define these two terms; why we make the distinction; and how to convert unweighted availability into weighted availability.

Defining Unweighted and Weighted Availability

Unweighted availability measures a group's share of all firms that could receive a contract or subcontract. If 100 firms could receive a contract and 15 of these firms are minority-owned, then MBE unweighted availability is 15 percent (15/100). *Weighted availability* converts the unweighted availability through the use of a weighting factor: the share of total agency spending in a particular NAICS code. If total agency spending is \$1,000,000 and NAICS Code AAAAAA captures \$100,000 of the total spending, then the weighting factor for NAICS code AAAAAA is 10 percent ($\$100,000/\$1,000,000$).

Why Weight the Unweighted Availability

It is important to understand *why* weighted availability should be calculated. A disparity study examines the overall contracting activity of an agency by looking at the firms that *received* contracts and the firms that *could have received* contracts. A proper analysis does not allow activity in a NAICS code that is not important an agency's overall spending behavior to have a disproportionate impact on the analysis. In other words, the availability of a certain group in a specific NAICS code in which the agency spends few of its dollars should have less importance to the analysis than the availability of a certain group in another NAICS code where the agency spends a large share of its dollars.

To account for these differences, the availability in each NAICS code is weighted by the agency's spending in the code. The calculation of the weighted availability compares the firms that received contracts (utilization) and the firms that could receive contracts (availability). Utilization is a group's share of total spending by an agency; this metric is measure in dollars, *i.e.*,

MBEs received 8 percent of all dollars spent by the agency. Since utilization is measured in dollars, availability must be measured in dollars to permit an “apples-to-apples” comparison.

How to Calculate the Weighted Availability

Three steps are involved in converting unweighted availability into weighted availability:

- Determine the unweighted availability
- Determine the weights for each NAICS code
- Apply the weights to the unweighted availability to calculate weighted availability

The following is a hypothetical calculation.

Table A contains data on unweighted availability measured by the number of firms:

Table A

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
AAAAAA	10	20	20	5	15	400	470
BBBBBB	20	15	15	4	16	410	480
CCCCCC	10	10	18	3	17	420	478
TOTAL	40	45	53	12	48	1230	1428

Unweighted availability measured as the share of firms requires us to divide the number of firms in each group by the total number of firms (the last column in Table A). For example, the Black share of total firms in NAICS code AAAAAA is 2.1 percent (10/470). Table B presents the unweighted availability measure as a group’s share of all firms.

Table B

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
AAAAAA	2.1%	4.3%	4.3%	1.1%	3.2%	85.1%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
BBBBBB	4.2%	3.1%	3.1%	0.8%	3.3%	85.4%	100.0%
CCCCCC	2.1%	2.1%	3.8%	0.6%	3.6%	87.9%	100.0%
TOTAL	2.8%	3.2%	3.7%	0.8%	3.4%	86.1%	100.0%

Table C presents data on the agency’s spending in each NAICS code:

Table C

NAICS	Total Dollars	Share
AAAAAA	\$1,000.00	22.2%
BBBBBB	\$1,500.00	33.3%
CCCCCC	\$2,000.00	44.4%
TOTAL	\$4,500.00	100.0%

Each NAICS code’s share of total agency spending (the last column in Table C) is the weight from each NAICS code that will be used in calculating the weighted availability. To calculate the overall weighted availability for each group, we first derive the every NAICS code component of a group’s overall weighted availability. This is done by multiplying the NAICS code weight by the particular group’s unweighted availability in that NAICS code. For instance, to determine NAICS code AAAAAA’s component of the overall Black weighted availability, we would multiply 22.2 percent (the NAICS code weight) by 2.1 percent (the Black unweighted availability in NAICS code AAAAAA). The resulting number is 0.005 and this number is found in Table D under the cell which presents NAICS code AAAAAA’s share of the Black weighted availability. The procedure is repeated for each group in each NAICS code. The calculation is completed by adding up each NAICS component for a particular group to calculate that group’s overall weighted availability. Table D presents this information:

Table D

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE
AAAAAA	0.005	0.009	0.009	0.002	0.007	0.189
BBBBBB	0.014	0.010	0.010	0.003	0.011	0.285
CCCCCC	0.009	0.009	0.017	0.003	0.016	0.391
TOTAL	0.028	0.029	0.037	0.008	0.034	0.864

To determine the overall *weighted availability*, the last row of Table D is converted into a percentage (*e.g.*, for the Black weighted availability: $0.028 * 100 = 2.8$ percent). Table E presents these results.

Table E

Black	Hispanic	Asian	Native American	White Women	Non-MWBE	Total
2.8%	2.9%	3.7%	0.8%	3.4%	86.4%	100.0%

APPENDIX E:

QUALITATIVE EVIDENCE FROM TEXAS DISPARITY STUDIES

In addition to the anecdotal data collected for this study and provided in the Qualitative chapter of this report, Colette Holt & Associates has conducted several studies in Texas over the last few years that shed light on the experiences of minority- and women-owned firms in the Texas marketplace.

This summary of anecdotal reports provides an overview of the following Disparity Studies: Harris County 2020 (“Harris County”); the City of Arlington 2020 (“Arlington”); the City of Fort Worth 2020 (“Fort Worth”); the Dallas Fort Worth International Airport 2019 (“DFW”); the Texas Department of Transportation 2019 (“TxDOT”); Dallas County 2015 (“Dallas County”); and Parkland Health and Hospital System 2015 (“PHHS”).

1. **Discriminatory Attitudes and Negative Perceptions of Competency and Professionalism**

Many minority and women owners reported being stigmatized by their race and/or gender. Subtle and overt stereotyping and race and gender discrimination were commonplace. Respondents reported that White men often evince negative attitudes concerning their competency, skill and professionalism.

Biases about the capabilities of minority and women business owners impact all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. The prevailing viewpoint is that M/WBEs and smaller firms are less qualified and capable.

One of the biggest general contractors in this part of Texas got up and says, "I don't want to do business with [minorities]... The only reason why I'm here is because I got a contract and the state is paying for it, or else I wouldn't be doing business with you. (Harris County, p.95)

Stigma sometimes can come from leading your marketing with M/WBE status, and that's a quick way to [not get work]. (DFW, page 158)

Sometimes, I choose not to present myself as a minority contractor.... Obviously, when people meet me, [being an MBE] they assume certain things. As they get to know me and understand that I can speak construction, that I'm bilingual, that I speak engineering, then I get the comment, "Oh, you're different." Or, "You're educated."... I do think that there is a stigma" [to being an MBE]. (DFW, page 158)

I try not to use my accent. And treatment is completely different, completely different [if they think I am White]. (TxDOT, page 161)

[Agency staff and prime vendors] are looking down at you because you are a woman. Because you're a woman, you probably didn't know IT. (Dallas County, page 104) (PHHS, page 107)

There's still this stigma. "Well, I guess, you know, we'll see what the little girls are doing over there." (DFW, page 158)

There are many women owned businesses who are trying today to survive in the male-owned, if you want to say good old boy, Texas network. Many of us. And it does keep us down because of the perception of what the woman knows in math and science as you negotiate with engineers. (Dallas County, page 102)

When a White firm commits an offense, something goes wrong, they say run his ass off. Not the firm, but the architect or that manager who did a poor job. If it's an African-American firm or Hispanic firm, run the company off. (PHHS, page 108) (Dallas County, page 103)

People of color do not get the same credit even if their financials and credit scores are the same.... [A White man has] got a little bit more credit than you did. And then there was a slowdown in paid invoices, [he's] a big GC and he floats it because he's got a little more credit. And then people turn around, "Hey, that guy's a good business. Joe Man Black over here, Hispanic, he doesn't know how to manage his business." All he did was access his credit line. And if he would've had his credit line, he could do it, too. It's like he ain't stupid. If he had a credit line, he'd access it when he needs it.... So then, [non-M/WBEs] look like they're better business people, not because they're better business people, but because people are carrying them. (Fort Worth, page 137)

There's definitely on fees, an expectation, that if you are woman-owned or minority-owned firm, that you're going to do the work for less. Same work, for less. (Harris County, page 95)

Many women reported unfair treatment or sexual harassment in the business world.

Sometimes I get statements like, "Are you sure you can do the work?" (TxDOT, page 162)

I've dealt with [TxDOT staff] that just thought I was dumb as dirt because I'm a woman, but this was a woman. (TxDOT, page 163)

I still do find the initial contact with specifically, a general contractor, there is somewhat that attitude of you're a woman, let me tell you how to do this. (TxDOT, page 162)

You get a lot of that. You're a woman, pat you on the head and say it's nice that you came today. Then, all the sudden, they'll be over there doing their thing and you sit there and hear what they're saying. You're like, that's not gonna be to code buddy and good luck with that. They look at you like, how do you know that? This is my job to know those things (TxDOT, page 162)

I have offered to go out and market more for the company and... some guys that were sitting in the back, they said, "Well, we really need somebody very young and pretty and dresses very nice to go out and market, 'cause they get the attention." "Excuse me?" I think I can do a good job marketing, but I...don't meet those qualifications. (TxDOT, page 163)

I've had dinner encounters ... I've had a guy grab me at one of those.... I definitely do make it a point to not ride with certain people that I don't feel comfortable with. (DFW, page 158)

2. Access to Formal and Informal Business and Professional Networks

Both minority and women respondents reported difficulty in accessing networks and fostering relationships necessary for professional success and viability. This difficulty extended to agency staff; respondents were unable to gain access to and communicate with key agency decisionmakers. Business owners frequently stated that Texas is a "good old boy" state (TxDOT, page 161; Dallas County, page 102; Fort Worth, page 134) and that it is difficult for new firms to

gain entry into a predominantly White and male-dominated industry. (DFW, page 158).

The transportation industry as a whole is dominated by the civil engineers, which typically the folks graduating in civil engineering are white men. You have a very low proportion of women and minorities with those degrees. Inherently, then in the workplace, you're seeing very low amounts of diversity. Same things in environmental services. You don't get a lot of women who are wildlife biologists. Someone with that type of experience typically has been hunting and fishing with his father and his grandpa their entire lives and they have a good old boys club. They go drinking, they go fishing, they go playing golf. (TxDOT, page 162)

You call and call and call [prime vendors] and you sort of feel like you're just bugging them. But they never call back. They never do anything. So, just seems like they're just used to doing business with the same companies and that's who they choose to do business with. (Harris County, p. 100)

They still see women as a support system. They do not see us as business people. We are stepping out, and we are, women are coming on. Men, I hate to put it, y'all better get ready because the women are in the labor force, they're coming hard, and they're coming fast. (Fort Worth, page 136)

You're not in the frat. You didn't get the letter, you know? You didn't get the call. But whatever you need to do to get in, you need to figure it out. (Harris County, page 100)

[Texas is] a good old boy state. It is a fact of life whether you're a woman, small business, whatever. Ladies, the only way we get a chance is we have to legally stand up and demand that we get a fair trial, that we be put on a level playing field by having rules and regulations.... [Women] are always behind. We will always be behind in this state. (Dallas County, page 101)

We are always at a disadvantage because we are not in a situation where we can build these relationships. Going to the country club here and having lunch with the mayor and with all of the CEOs of the companies around here. So, the playing field is not level, and it is discriminatory because we're not in a position to build those relationships. (Arlington, page 143).

I've been raised in Fort Worth my whole life and so it's still a very much a good old boys club here in Fort Worth. I spend 90 percent of my time in Dallas. And I live in Fort Worth. (Fort Worth, page 134)

I'm a lifelong Fort Worth resident and taxpayer and it's very disheartening that the City of Dallas has actually been a lot easier as a small minority business. There are certain aspects of the good old boys' club [you see] attending some of the pre-bids. You do see a lot of kind of favoritism and partiality to the contractors that are there and some of the City officials. (Fort Worth, page 134)

In presenting the various options and moving forward from concept into detail design, sitting around a room, and except for maybe an architect, I was always the only woman at the table. It's an expertise that I've carried for many years, and literally, repeated to the owners of a government entity, would present the case and why this is the recommendation to move forward. And it would be silence in the room. And then, this junior, who was not even a licensed P[rofessional] E[ngineer] yet, working underneath of me, who helped me put the slides together, and did some of the analysis under my leadership, would – they'd ask a couple of questions and this young man would answer the questions based on the slides and flipping back and forth. And then all of a sudden, the recommendation was accepted because this young man, who was my employee, was giving the answer instead of me. (Harris County, page 96)

There are many women owned businesses who are trying today to survive in the male-owned, if you want to say good old boy, Texas network. Many of us. An, it does keep us down because of the perception of what the woman knows in math and science, as you negotiate with engineers. (Dallas County, page 102)

My industry it is extremely male dominant.... They say, " Oh, there's a girl, there's a woman. What is she here for? Who does she work for?... That's [name]. Oh, she owns her own company. She's a little bitty company. She's nothing to worry about." Well, I'm going to be silent and deadly and they're going to watch because I'm coming. (Fort Worth, page 135)

The County and the hospital ... do tell you about the opportunities. The problem is you can't get into the inner circle [of agency decision makers]. (Dallas County, page 102)

[There is an] inability to get in front of the key decision makers [at the agencies].... I reached out to the executive assistant to the C[hief] I[nformation] O[fficer] and no one has responded at all. (PHHS, page 107)

3. Obtaining Work on an Equal Basis

Respondents reported that institutional and discriminatory barriers continue to exist in the Texas marketplace. They were in almost unanimous agreement that contract goals remain necessary to level the playing field and equalize opportunities. Race- and gender-neutral approaches alone are viewed as inadequate and unlikely to ensure a level playing field.

If it's not a project that has a goal, they're not bringing you to the table. (Dallas County, page 103)

There's no real aggressive movement on [the City's] part to recruit and require these plans to hire African-Americans. (Arlington, page 144).

There is an entrenched bias in favor of the big company. They'll have the political connections, all that stuff....They don't want to risk anything. They've got the good old boys, they got the whole comfy thing. (Arlington, pages 144-145).

Unless there's goals in the project, there is no business for small business. And even then, they try to skirt around it. And they'll use my credentials to actually go for it and then excuse me. (Dallas County, page 103)

I have never had a contract with a general contractor in 36 years that's private. Everything is government, and if the government didn't say use a minority, they wouldn't do it. (Harris County, page 97)

Prime vendors see the goal as the ceiling, not as the floor. (Dallas County, page 103)

If you just looking at goals, goals in itself, without enforcements, it's not effective. (Harris County, page 101)

If it wasn't for that requirement, that MWB requirement, most of the businesses would probably have a very difficult time staying in business and my business, probably 80 percent of it [comes] just from these types of governmental projects that come along and it's no way that these primes would work with

us ... on projects that did not have an MWB requirement. (Fort Worth, page 137)

If the program went away, what would happen? You would lose small businesses. One, if you don't have relationships, people do business with who they know. If we don't have a program that says that there has to be utilization, participation levels, whatever that is, DBE goals MBE goals, they won't use them. (Fort Worth, page 137)

Part of the problem is accountability... The State [of Texas] has told me, with regard to submitting bids for the Texas HUB requirement, that I need to go back to the contractor, but the contractor is the problem.... The government doesn't hold the contractor accountable. (Harris County, page 102)

The [City] work stopped as a result [of dropping Hispanic firms from the program]. It was not going to be helpful to [the prime proposer] to bring on my firm, because they wouldn't get any points in the grading of the proposals. So, therefore, I have not been able to do any work at all since. (Fort Worth, page 138)

If [prime vendors] think they can get away with it, without having goals, then they're going to self-perform or they're going to use the folks that they have relationships with. And those folks don't necessarily look like us. (Dallas County, page 103)

Until those [business relationships] are equal, you're going to have to keep on forcing numbers. And as quick as you force a number, they're going to come up with something to circumvent that number. (Dallas County, page 104)

[Prime contractors] are like, why do I need you? Why do I need to give you any money? It's not required of me to do it. So, you may have the greatest relationship with them in the world but those larger firms, if they don't need to check the box so to speak, they're not going to reach out and say, hey, I want to help grow you more because in their mind I just helped you on this job get this much money, you should be happy and let me go do what I need to do. (Dallas County, page 103)

Minority and female entrepreneurs were also concerned about the inability to get work due to longstanding relationships that predate contracting affirmative action programs.

[Larger white male-owned firms are] going to go and use the same company [with which they usually do business]. (PHHS, page 106)

[People] tend to do business with who they know and who they like, and they really don't care that they're supposed to [meet a goal]. (Dallas County, page 103)

And if you're not a DBE or HUB or SBE, you're not going to be considered for any work as a consultant for TxDOT because they're going to use these legacy firms for most of their work on the consulting side. (TxDOT study, page 164)

There's this systemic nature of doing business with people you know. And we all like to do business with people we know. We know that they'll come through. They'll be on time. They'll be under budget.... [But] the systemic aspect of familiarity for others sometimes breeds contempt for the person trying to get in the door. (Fort Worth, page 133)

Respondents also maintained that prime contractors are not comfortable with minorities taking larger roles. They indicated that even M/WBEs who had accessed large public contracts through M/WBE programs did not translate into public sector work.

Do we really want to play this game and how much headache and how much headache do we want to deal with?... We employ 75 employees and I've had minorities grow through our organization. But, the challenge that I have is now that we're able to bond single projects up to 15, 18 million dollars, I'm getting a bigger pushback.... When we can sit down and start talking business and how we're going to staff the job, going to put my bonding up, what's the duration and the schedule? [The large general contractors are] doing this, no, no, no [shaking head]. (Dallas County, page 104)

You get in a niche of being a DBE and you're automatically a sub.... We've had a lot of success in the DBE market and I'm not going to downplay that, but as a prime, we don't get a lot. We end up getting a smaller piece so you can do the hydraulics, or you can do the survey but the true design work for plan and profile on a street or something like that where we can actually show expertise in engineering, we're not given that piece of the pie. (Arlington, page 145).

[A general contractor, which this MBE had worked on major project jobs, when approached about a private sector project, responded] there's no MWBE [goal] on this: I said, wait a minute. We just worked together for five years; you know me. Yes, but there's not MWBE goals. I said, you mean to tell me I can't do [scope]? It's right across the street from my headquarters. Well, there's no MWBE goals. So, he's one of the good guys. (PHHS, page 109)

Respondents also suggested approaches to increasing M/WBE opportunities and capacities.

Come out with a mentoring program that's goal-oriented and visible. (PHHS, page 110)

A good mentor helps you with a lot of things that have nothing to do with that specific project but with your business. Helps you with your safety plan and quality control plans (Dallas County, page 105)

My recommendation is that they start to do lunch and learn where you get to meet with that department for hours specific to your line of business and now you're able to have a true one-on-one conversation, or even in a group setting of their size where we can ask specific questions to understand how to respond to these RFQs, RFPs better, because as it stands right now, it's the generic and generic gets you nowhere because you don't know what a person expects. And we all have a concept of how we work, but if that's not what the person's looking for, we miss every time. (Arlington, page 146).

We've had a mentorship with [firm name] which has helped us immensely. Because I don't think we would have been able to walk through the doors or bid on the things that we've bid on or have the opportunity had we not had that mentorship. Because they had forged a path in places where I hadn't seen before. And I work in a very male dominated business in [specialty trade]. It's predominantly men. And there is some stigma with that. There are competency issues when you show up at a meeting and you're a woman and you're representing the [specialty trade] company. So, I'm really thankful for the mentorship program because I think it's just something that helps open doors. (PHHS, page 110)

I'm hearing a lot of positive feedback on mentor-protégé [initiatives]. Because you write a really good mentor-protégé

agreement and you have a great mentor, you can really learn a lot. (Dallas County, page 105)

Houston Community College has a lot of money that they have to put programs together. And they said if we will just call them and tell them what program we want, and we can get, say, 10 to 15 people in there, they'll design the program. So, you could put a mentoring program together for anybody. (Harris County, page 103)

I have some experience with J[oint] V[entures] and mentor-protégé relationships and they work but it depends on A, who you're partnering with. It's just like with anything. A JV is like a marriage. (Dallas County, page 105)

Our challenge [with acting as joint venture partner with a majority-owned firm] that we have when we're sitting at the table [is] we're really not in a decision-making position [with the majority-owned partner]. (Dallas County, page 105)

There should be contracts from which] the big boys should be completely excluded. (Dallas County, page 106)

I'm a big fan of being a participant in mentor-protégé programs because you learn how to stay in business. (Harris County, page 103)

If the County were to follow any program on the civil side, it would be the State as opposed to the City. I think the State has a lot better program. They have lower goals, but they use commercially useful function. The City has no commercially useful function. They say they do, but they really don't. There's a lot of pass throughs because their goals are so high. A lot of pass throughs are used every day to meet the goals and to me that's not the purpose of what we're doing. (Harris County, page 106)