

# Austin Independent School District Statistical Disparity Study 2022





# AUSTIN INDEPENDENT SCHOOL DISTRICT STATISTICAL DISPARITY STUDY

## 2022

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## About the Study Team

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

## Acknowledgments

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# I. EXECUTIVE SUMMARY

Colette Holt & Associates (“CHA”) was retained by the Austin Independent School District (“AISD”) to perform a disparity analysis for its Program for Historically Underutilized Businesses (“HUBs”).<sup>1</sup> We examined AISD’s utilization of M/WBEs from 2015 through 2019; the availability of these firms as a percentage of all firms in the agency’s geographic and industry market areas; and any disparities between AISD’s utilization of M/WBEs and M/WBE availability. We also provided a summary of the qualitative data about the experiences of minority- and woman-owned firms in obtaining government and private sector contracts from our other Texas disparity studies in Appendix E.

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 conducting legally defensible disparity studies.

## A. Utilization, Availability and Disparity Analyses of Austin Independent School District’s Contracts

The study examined data from AISD contracts for fiscal years 2015 through 2019. The Initial Contract Data File (“Universe”) contained 1,558 contracts. Because of the large number of contracts, we developed a stratified random sample from the initial 1,588 contracts. The sample consisted of 766 contracts.<sup>2</sup> To conduct the analysis, we constructed all the fields necessary where they were missing in AISD’s contract records (*e.g.*, industry type; zip codes; six-digit North American Industry Classification System (“NAICS”) codes of prime contractors and subcontractors; and firm information, including payments, race, gender; etc.). The Final Contract Data File (“FCDF”) contained 543 prime contracts and 921 subcontracts. The net dollar value of contracts to prime contractors and subcontractors was \$384,473,969.

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1. We use the terms HUB and M/WBE interchangeably.
  2. The sample was constructed by first stratifying the contract universes into its four industries components: Construction, Goods, Professional Services, and General Services. With each component, we derived a random sample where distribution of contracts within that component across range of contract dollars approximated that distribution within the component universe. For example, in the universe, the Goods industry component captured 12.5% of all of the award amounts; in the sample, the General Services industry component captured 13.1% of all of the award amounts.

Table 1-1 presents data on the 94 NAICS codes contained in the FCDF. 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 spending from the NAICS code with the largest share to the NAICS code with the smallest share.

To determine the geographic market area, we applied the standard of identifying the firm locations that account for close to 75% of contract and subcontract dollar payments in the FCDF.<sup>3</sup> Firm location was determined by zip code and aggregated into counties as the geographic unit. The state of Texas captured 92.7% of the FCDF and three counties in the Austin Metropolitan Statistical Area – Travis, Williamson, and Hays – captured 70.6% of the FCDF and therefore, we used those three counties as the geographic market.

We next determined the dollar value of AISD’s utilization of M/WBEs, as measured by payments to prime firms and subcontractors and disaggregated by race and gender.<sup>4</sup>

Table 1-1 presents a summary of the distribution of contract dollars across the 67 NAICS codes in the constrained market area. Chapter II provides detailed breakdowns of these results.

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

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
1.1%	8.4%	2.0%	0.1%	18.1%	29.6%	70.4%	100.0%

*Source: CHA analysis of AISD data*

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/WBEs in AISD’s market area. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.<sup>5</sup>

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3. J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, National Academies of Sciences, Engineering, and Medicine, 2010 (“*National Disparity Study Guidelines*”), at p. 29.

4. 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.

5. 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>.

We next determined the aggregated unweighted availability of M/WBEs, and then the availability of M/WBEs weighted by AISD’s spending in its geographic and industry markets. Table 1-2 presents the results for unweighted availability.

**Table 1-2: Unweighted M/WBE Availability for AISD Contracts**

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
0.9%	1.6%	0.8%	0.1%	4.6%	7.9%	92.1%	100.0%

*Source: CHA analysis of AISD data; Hoovers; CHA Master Directory*

Table 1-3 presents the results for weighted availability.

**Table 1-3: Aggregated Weighted Availability for AISD Contracts**

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
2.0%	4.7%	1.5%	0.3%	7.8%	16.4%	83.6%	100.0%

*Source: CHA analysis of AISD 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 result may be caused by the disparate impacts of discrimination.<sup>6</sup> 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.<sup>7</sup> A more in-depth discussion of statistical significance is provided in Chapter II and Appendix C.

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6. 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.”).

Table 1-4 presents the calculated disparity ratios for each demographic group. The disparity ratios for Blacks and Native Americans were substantively significant. The disparity ratios for all groups except Native Americans are statistically significant at the 0.001 level.

**Table 1-4: Disparity Ratios by Demographic Group**

	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE
Disparity Ratio	54.3% <sup>‡***</sup>	178.1% <sup>***</sup>	130.6% <sup>***</sup>	25.7% <sup>‡</sup>	231.6% <sup>***</sup>	181.3% <sup>***</sup>	97.40% <sup>***</sup>

Source: CHA analysis of Austin Independent School District data

<sup>‡</sup> Indicates substantive significance

<sup>\*\*\*</sup> Statistically significant at the 0.001 level

In order to get a better understanding of the extremely high disparity ratios, we examined more closely the five NAICS codes where AISD spent 65.4% of its contract dollars. For each NAICS code, we compared a demographic group’s utilization of AISD’s contract dollars to its unweighted availability. Most striking is the lack of contract dollars received by M/WBEs in these five codes. Blacks, Hispanics, and Asians only get significant opportunities in one NAICS code and White women received small shares of the contracts in just two codes. Chapter II provides more detail on this analysis.

## B. Recommendations for the Austin Independent School District’s Historically Underutilized Business Program

This Report presents the results of our analysis of AISD’s geographic and product market areas; its utilization of M/WBEs as a percentage of all firms in those market areas, measured by dollars spent; the concentration of M/WBEs compared to non-M/WBEs in the agency’s spending; and the disparity ratios between each racial and ethnic group and White women compared to non-M/WBEs. We also presented the anecdotal data from our other Texas studies, which are relevant and probative for AISD because they share similar markets. Based on these results, we make the following recommendations for a narrowly tailored HUB Program.

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7. 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.

## 1. Use the Study to Set HUB Contract Goals

We suggest that AISD use the Study's detailed unweighted availability estimates as the starting point for contract specific goals for HUB participation. An agency's constitutional responsibility is to ensure that goals are narrowly tailored to the specifics of the project.

Narrowly tailored contract goal setting involves four steps:

- Weight the estimated dollar value of the scopes of the contract by six-digit NAICS codes, as determined during the process of creating the solicitation.
- Determine the unweighted availability of M/WBEs in those scopes as estimated in the study.
- Calculate a weighted goal based upon the scopes and the availability of at least three available firms in each scope.
- Adjust the resulting percentage based on current market conditions and progress towards the annual goals.

Written procedures spelling out the steps should be drafted and disseminated.

AISD's current electronic data collection and monitoring system, B2Gnow®, contains a contract goal setting module that has been designed to integrate the results of our disparity studies into the system to simplify the process and develop defensible goals. We suggest the agency utilize this module as the starting point for its contract specific goal setting.

Where there is a significant change order issued by AISD, the contract goal should be evaluated to determine the change's impact on goal attainment. If an M/WBE's scope is reduced such that the original contract goal will not be met, the contractor should be required to make good faith efforts ("GFE") to add participation if possible.

We further urge AISD to bid some contracts without goals that it determines have significant opportunities for HUB participation. These control contracts can illuminate whether certified firms are used, or even solicited, in the absence of goals. This is especially important given the high utilization of M/WBEs during the study period. The development of some "unremediated markets" data, as held by the courts, will be probative of whether the Program remains needed to ensure the playing field remains level for minorities and women.

## **2. Conduct Outreach to a Broad Range of Industries**

We suggest taking affirmative steps to target industries in which HUBs have not fully participated for future prime contracting and subcontracting opportunities. Additional outreach and support might help to increase opportunities in this, and many other codes. Enhanced efforts could include holding special vendor fairs, enlisting the assistance of industry groups to encourage their members to submit bids for agency work, and contacting individual certified firms to ensure that they are aware of specific solicitations.

## **3. Develop Performance Measures for Program Success**

AISD should develop quantitative and qualitative performance measures for HUBs and the overall success of the Program to evaluate its effectiveness in reducing the systemic barriers identified in this Report. Possible benchmarks might be:

- The number of bids or proposals, the industry and the dollar amount of the awards and the goal shortfall, where the bidder was unable to meet the goal and submitted GFE to do so.
- The number, dollar amount and the industry code of bids or proposals rejected as non-responsive for failure to make GFE to meet the goal.
- The number, industry and dollar amount of HUB substitutions during contract performance.
- Increased bidding by certified firms as prime vendors.
- Increased prime contract awards to certified firms.
- Increased HUB bonding limits, size of jobs, profitability, complexity of work, etc.
- Increased variety in the industries in which minority- and woman-owned firms are awarded prime contracts and subcontracts.

## **4. Continue to Conduct Regular Program Reviews**

AISD should adopt a sunset date for the current Program, a requirement of the federal courts. Data should be reviewed approximately every five to six years, to evaluate whether race- and gender-based barriers have been reduced such that affirmative efforts are no longer needed. If such measures are necessary, AISD must ensure that they remain narrowly tailored.



# II. CONTRACT DATA ANALYSIS FOR THE AUSTIN INDEPENDENT SCHOOL DISTRICT

## A. Contract Data Overview

We analyzed data for Austin Independent School District (“AISD”) contracts for the fiscal years 2015 through 2019. The Initial Contract Data File (“Universe”) contained 1,558 contracts. Because of the large number of contracts, we developed a stratified random sample from the initial 1,588 contracts. The sample consisted of 766 contracts.<sup>8</sup> To conduct the analysis, we constructed all the fields necessary where they were missing in the contract records (e.g., industry type; zip codes; six-digit North American Industry Classification System (“NAICS”) codes of prime contractors and subcontractors; and Minority- and Woman-owned Business Enterprise (“M/WBE”) information, including payments, race, gender; etc.). Tables 2-1 and 2-2 provide data on the resulting Final Contract Data File (“FCDF”) for AISD’s contracts.

**Table 2-1: Final Contract Data File  
Number of Contracts**

Contract Type	Total Contracts	Share of Total Contracts
Prime Contracts	543 <sup>a</sup>	37.1%
Subcontracts	921	62.9%
<b>TOTAL</b>	<b>1,464</b>	<b>100.0%</b>

a. While CHA reached out to all of the primes that performed the 766 contracts in the sample, only 543 primes responded.

Source: CHA analysis of Austin Independent School District data

8. The sample was constructed by first stratifying the contract universes into its four industries components: Construction, Goods, Professional Services, and General Services. With each component, we derived a random sample where distribution of contracts within that component across range of contract dollars approximated that distribution within the component universe. For example, in the universe, the Goods industry component captured 12.5% of all of the award amounts; in the sample, the General Services industry component captured 13.1% of all of the award amounts.

**Table 2-2: Final Contract Data File**  
**Net Dollar Value of Contracts**

<b>Business Type</b>	<b>Total Contract Dollars</b>	<b>Share of Total Contract Dollars</b>
Prime Contracts	\$217,249,276	56.5%
Subcontracts	\$167,224,693	43.5%
<b>TOTAL</b>	<b>\$384,473,969</b>	<b>100.0%</b>

Source: CHA analysis of Austin Independent School District data

The following sections present our analysis, which consisted of five steps:

1. The determination of the product and geographic markets for the analysis.
2. The estimation of the utilization of M/WBEs by AISD.
3. The calculation of the M/WBE unweighted and weighted availability in AISD’s marketplace.
4. The examination of concentration of contract dollars among M/WBE and non-M/WBE firms.
5. The presentation of the M/WBE disparity analysis.

## **B. The Austin Independent School District’s Contract Markets**

The federal courts<sup>9</sup> require that a local government narrowly tailor its M/WBE program elements to its market area. A market has two dimensions: industry and geography. This means the study must determine the products or industries which an agency purchases and the geographic location of the firms from which it purchases. These elements of the analysis must be empirically established.<sup>10</sup> The accepted approach is to analyze those detailed industries, as defined by six-digit NAICS codes,<sup>11</sup> that make up at least 75% of the prime contract and subcontract payments for the study period.<sup>12</sup> The determination of AISD’s product and geographic market required three steps:

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9. *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 M/WBE program); see 49 C.F.R. §26.45(c); <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise> (“D. Explain How You Determined Your Local Market Area.... your local market area is the area in which the substantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars.”).
  10. *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”).
  11. [www.census.gov/eos/www/naics](http://www.census.gov/eos/www/naics).

- Development the FCDF to determine the product market. These results are provided in Table 2-3.
- Identification of the geographic market.
- Determination of the product market constrained by the geographic parameters. Table 2-4 presents these results.

## 1. Product Market for AISD Contracts

To establish AISD’s product market, we developed the FCDF, which consisted of 94 NAICS codes, with a total contract dollar value of \$384,473,969. Table 2-3 presents each NAICS code with its share of the total contract dollar value. The NAICS codes are presented in the order of the code with the largest share to the code with the smallest share.

**Table 2-3: Industry Percentage Distribution of Austin Independent School District Contracts by Dollars**

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	29.0%	29.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	16.1%	45.1%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	9.3%	54.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	6.2%	60.6%
237310	Highway, Street, and Bridge Construction	3.3%	63.9%
541330	Engineering Services	3.3%	67.1%
238120	Structural Steel and Precast Concrete Contractors	2.9%	70.0%
541310	Architectural Services	2.8%	72.8%
541511	Custom Computer Programming Services	2.4%	75.3%
238310	Drywall and Insulation Contractors	2.0%	77.3%
238160	Roofing Contractors	1.8%	79.2%

12. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal M/WBE 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
423210	Furniture Merchant Wholesalers	1.4%	80.6%
621112	Offices of Physicians, Mental Health Specialists	1.4%	82.0%
238390	Other Building Finishing Contractors	1.3%	83.2%
238350	Finish Carpentry Contractors	1.1%	84.4%
238150	Glass and Glazing Contractors	1.1%	85.4%
238330	Flooring Contractors	1.1%	86.5%
238910	Site Preparation Contractors	1.0%	87.6%
238140	Masonry Contractors	1.0%	88.5%
541611	Administrative Management and General Management Consulting Services	1.0%	89.5%
238990	All Other Specialty Trade Contractors	0.9%	90.4%
561730	Landscaping Services	0.7%	91.1%
238320	Painting and Wall Covering Contractors	0.7%	91.7%
541620	Environmental Consulting Services	0.6%	92.3%
541512	Computer Systems Design Services	0.6%	92.8%
541820	Public Relations Agencies	0.5%	93.4%
541420	Industrial Design Services	0.5%	93.9%
423440	Other Commercial Equipment Merchant Wholesalers	0.5%	94.3%
562910	Remediation Services	0.5%	94.8%
561320	Temporary Help Services	0.4%	95.2%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.4%	95.6%
238290	Other Building Equipment Contractors	0.3%	95.9%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.3%	96.2%
541519	Other Computer Related Services	0.3%	96.5%
541990	All Other Professional, Scientific, and Technical Services	0.3%	96.8%
541612	Human Resources Consulting Services	0.2%	97.0%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.2%	97.2%

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<b>NAICS</b>	<b>NAICS Code Description</b>	<b>Pct Contract Dollars</b>	<b>Cumulative Pct Contract Dollars</b>
484210	Used Household and Office Goods Moving	0.2%	97.4%
532210	Consumer Electronics and Appliances Rental	0.2%	97.6%
238110	Poured Concrete Foundation and Structure Contractors	0.2%	97.8%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.1%	97.9%
541613	Marketing Consulting Services	0.1%	98.0%
561612	Security Guards and Patrol Services	0.1%	98.1%
621399	Offices of All Other Miscellaneous Health Practitioners	0.1%	98.2%
518210	Data Processing, Hosting, and Related Services	0.1%	98.3%
561990	All Other Support Services	0.1%	98.4%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0.1%	98.5%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.1%	98.6%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.1%	98.7%
237990	Other Heavy and Civil Engineering Construction	0.1%	98.8%
541380	Testing Laboratories	0.1%	98.9%
561439	Other Business Service Centers (including Copy Shops)	0.1%	98.9%
423420	Office Equipment Merchant Wholesalers	0.1%	99.0%
424120	Stationery and Office Supplies Merchant Wholesalers	0.1%	99.1%
541930	Translation and Interpretation Services	0.1%	99.1%
424320	Men's and Boy's Clothing and Furnishings Merchant Wholesalers	0.1%	99.2%
423410	Photographic Equipment and Supplies Merchant Wholesalers	0.1%	99.3%
562111	Solid Waste Collection	0.1%	99.3%
611710	Educational Support Services	0.05%	99.4%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541370	Surveying and Mapping (except Geophysical) Services	0.05%	99.4%
812930	Parking Lots and Garages	0.05%	99.4%
541618	Other Management Consulting Services	0.04%	99.5%
541320	Landscape Architectural Services	0.04%	99.5%
811111	General Automotive Repair	0.04%	99.6%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.04%	99.6%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.04%	99.7%
722310	Food Service Contractors	0.04%	99.7%
541810	Advertising Agencies	0.03%	99.7%
236210	Industrial Building Construction	0.03%	99.8%
541910	Marketing Research and Public Opinion Polling	0.02%	99.8%
561330	Professional Employer Organizations	0.02%	99.8%
423220	Home Furnishing Merchant Wholesalers	0.02%	99.8%
541211	Offices of Certified Public Accountants	0.02%	99.8%
541219	Other Accounting Services	0.02%	99.9%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.02%	99.9%
561621	Security Systems Services (except Locksmiths)	0.02%	99.9%
237110	Water and Sewer Line and Related Structures Construction	0.02%	99.9%
562991	Septic Tank and Related Services	0.02%	99.9%
332323	Ornamental and Architectural Metal Work Manufacturing	0.01%	99.9%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.01%	99.96%
562998	All Other Miscellaneous Waste Management Services	0.01%	99.97%
561720	Janitorial Services	0.01%	99.98%
541410	Interior Design Services	0.005%	99.98%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
561710	Exterminating and Pest Control Services	0.004%	99.99%
541690	Other Scientific and Technical Consulting Services	0.003%	99.99%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.003%	99.99%
541430	Graphic Design Services	0.002%	99.997%
423390	Other Construction Material Merchant Wholesalers	0.001%	99.997%
541350	Building Inspection Services	0.001%	99.998%
488210	Support Activities for Rail Transportation	0.001%	99.999%
561790	Other Services to Buildings and Dwellings	0.001%	99.999%
531130	Lessors of Miniwarehouses and Self-Storage Units	0.0002%	99.9997%
517311	Wired Telecommunications Carriers	0.0002%	99.9999%
237210	Land Subdivision	0.0001%	100.00%
<b>TOTAL</b>		<b>100.0%</b>	

*Source: CHA analysis of Austin Independent School District data*

## 2. Geographic Market for Austin Independent School District Contracts

To determine the geographic market area, we applied the standard of identifying the firm locations that account for close to 75% of contract and subcontract dollar payments in the FCDF.<sup>13</sup> Firm location was determined by zip code and aggregated into counties as the geographic unit. The state of Texas captured 92.7% of the FCDF and three counties in the Austin Metropolitan Statistical Area – Travis, Williamson, and Hays – captured 70.6% of the FCDF and therefore, we used those three counties as the geographic market.

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13. J. Wainwright and C. Holt, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, National Academies of Sciences, Engineering, and Medicine, 2010 (“*National Disparity Study Guidelines*”), at p. 29.

## C. The Austin Independent School District’s Utilization of M/WBEs in its Product and Geographic Market

Having determined AISD’s product and geographic market area, the next step was to determine the dollar value of its utilization of M/WBEs<sup>14</sup> as measured by net payments to prime firms and subcontractors and disaggregated by race and gender. There were 67 NAICS codes after constraining the FCDF by the geographic market; the dollar value of the contracts in these codes was \$271,488,485. Table 2-4 presents these data. We note that the contract dollar shares in Table 2-4 are equivalent to the weight of spending in each NAICS code. These data were used to calculate weighted availability<sup>15</sup> from unweighted availability, as discussed below.

**Table 2-4: NAICS Code Distribution of Contract Dollars in the Constrained Product Market**

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	\$100,401,800	37.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$45,679,352	16.8%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$22,920,596	8.4%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$12,052,364	4.4%
237310	Highway, Street, and Bridge Construction	\$11,148,935	4.1%
541310	Architectural Services	\$8,908,266	3.3%
541330	Engineering Services	\$8,479,113	3.1%
238310	Drywall and Insulation Contractors	\$6,137,190	2.3%

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14. For our analysis, the term “M/WBE” or Historically Underutilized Business (“HUB”) includes firms that are certified by government agencies and minority- and woman-owned firms that are not certified. 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 M/WBE availability calculation that casts a broader net.”).
  15. See “Tips for Goal Setting in the Disadvantaged Business Enterprise Program” (“F. Wherever Possible, Use Weighting. Weighting can help ensure that your Step One Base Figure is as accurate as possible. While weighting is not required by the rule, it will make your goal calculation more accurate. For instance, if 90% of your contract dollars will be spent on heavy construction and 10% on trucking, you should weight your calculation of the relative availability of firms by the same percentages.”), <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.



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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
621112	Offices of Physicians, Mental Health Specialists	\$5,296,261	2.0%
238160	Roofing Contractors	\$4,820,639	1.8%
238910	Site Preparation Contractors	\$3,586,838	1.3%
423210	Furniture Merchant Wholesalers	\$3,476,016	1.3%
238140	Masonry Contractors	\$3,131,230	1.2%
238150	Glass and Glazing Contractors	\$2,969,635	1.1%
238330	Flooring Contractors	\$2,926,362	1.1%
541611	Administrative Management and General Management Consulting Services	\$2,919,330	1.1%
238350	Finish Carpentry Contractors	\$2,683,622	1.0%
238390	Other Building Finishing Contractors	\$2,126,912	0.8%
541820	Public Relations Agencies	\$1,989,500	0.7%
541620	Environmental Consulting Services	\$1,988,780	0.7%
541420	Industrial Design Services	\$1,934,012	0.7%
238120	Structural Steel and Precast Concrete Contractors	\$1,802,893	0.7%
561730	Landscaping Services	\$1,740,040	0.6%
238990	All Other Specialty Trade Contractors	\$1,678,893	0.6%
238320	Painting and Wall Covering Contractors	\$1,471,541	0.5%
561320	Temporary Help Services	\$1,387,158	0.5%
562910	Remediation Services	\$1,109,500	0.4%
541511	Custom Computer Programming Services	\$908,595	0.3%
484210	Used Household and Office Goods Moving	\$790,524	0.3%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$554,378	0.2%
238110	Poured Concrete Foundation and Structure Contractors	\$402,468	0.1%
238290	Other Building Equipment Contractors	\$376,354	0.1%
518210	Data Processing, Hosting, and Related Services	\$374,086	0.1%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	\$345,884	0.1%

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NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
237990	Other Heavy and Civil Engineering Construction	\$329,557	0.1%
561439	Other Business Service Centers (including Copy Shops)	\$277,468	0.1%
541612	Human Resources Consulting Services	\$275,090	0.1%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$267,620	0.1%
562111	Solid Waste Collection	\$195,650	0.1%
561990	All Other Support Services	\$189,733	0.1%
541370	Surveying and Mapping (except Geophysical) Services	\$175,618	0.1%
541320	Landscape Architectural Services	\$166,750	0.1%
541990	All Other Professional, Scientific, and Technical Services	\$166,000	0.1%
541618	Other Management Consulting Services	\$165,000	0.1%
541380	Testing Laboratories	\$143,440	0.1%
541810	Advertising Agencies	\$125,000	0.05%
561612	Security Guards and Patrol Services	\$94,574	0.03%
812930	Parking Lots and Garages	\$70,000	0.03%
722310	Food Service Contractors	\$62,697	0.02%
424120	Stationery and Office Supplies Merchant Wholesalers	\$57,500	0.02%
541512	Computer Systems Design Services	\$53,314	0.02%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	\$48,960	0.02%
561720	Janitorial Services	\$36,163	0.01%
541690	Other Scientific and Technical Consulting Services	\$13,000	0.005%
236210	Industrial Building Construction	\$7,802	0.003%
423440	Other Commercial Equipment Merchant Wholesalers	\$6,678	0.002%
424690	Other Chemical and Allied Products Merchant Wholesalers	\$6,500	0.002%

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<b>NAICS</b>	<b>NAICS Code Description</b>	<b>Total Contract Dollars</b>	<b>Pct Total Contract Dollars</b>
237110	Water and Sewer Line and Related Structures Construction	\$6,400	0.002%
541430	Graphic Design Services	\$6,000	0.002%
541410	Interior Design Services	\$5,400	0.002%
423220	Home Furnishing Merchant Wholesalers	\$4,373	0.002%
561710	Exterminating and Pest Control Services	\$3,675	0.001%
423390	Other Construction Material Merchant Wholesalers	\$3,220	0.001%
541350	Building Inspection Services	\$3,030	0.001%
561790	Other Services to Buildings and Dwellings	\$2,000	0.001%
517311	Wired Telecommunications Carriers	\$825	0.0003%
237210	Land Subdivision	\$375	0.0001%
<b>TOTAL</b>		<b>\$271,488,485</b>	<b>100.0%</b>

*Source: CHA analysis of Austin Independent School District data*

## D. The Austin Independent School District's Utilization of M/WBEs in its Product and Geographic Market

Tables 2-5 and 2-6 present data on AISD's M/WBE utilization, measured in contract dollars and percentage of contract dollars.

**Table 2-5: Distribution of Contract Dollars by Race and Gender  
(total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
236210	\$0	\$0	\$0	\$0	\$0	\$0	\$7,802	\$7,802
236220	\$144,755	\$10,066,378	\$1,946,990	\$0	\$13,347,657	\$25,505,780	\$74,896,023	\$100,401,803
237110	\$0	\$0	\$0	\$0	\$6,400	\$6,400	\$0	\$6,400
237210	\$0	\$0	\$0	\$0	\$0	\$0	\$375	\$375
237310	\$133,757	\$386,386	\$0	\$0	\$2,954,300	\$3,474,442	\$7,674,493	\$11,148,935
237990	\$0	\$0	\$0	\$0	\$0	\$0	\$329,557	\$329,557
238110	\$0	\$0	\$0	\$0	\$0	\$0	\$402,468	\$402,468
238120	\$3,123	\$0	\$123,775	\$0	\$0	\$126,898	\$1,675,995	\$1,802,893
238140	\$0	\$34,190	\$0	\$0	\$192,156	\$226,346	\$2,904,884	\$3,131,230
238150	\$2,047	\$0	\$0	\$0	\$0	\$2,047	\$2,967,588	\$2,969,635
238160	\$0	\$0	\$0	\$0	\$912,335	\$912,335	\$3,908,304	\$4,820,639
238210	\$60,249	\$3,435,430	\$23,452	\$0	\$3,630,550	\$7,149,681	\$4,902,682	\$12,052,364
238220	\$0	\$584,092	\$824,170	\$0	\$8,567,619	\$9,975,881	\$35,703,472	\$45,679,353
238290	\$0	\$303,504	\$0	\$0	\$0	\$303,504	\$72,850	\$376,354
238310	\$0	\$0	\$0	\$0	\$14,503	\$14,503	\$6,122,687	\$6,137,190
238320	\$0	\$0	\$0	\$0	\$180,002	\$180,002	\$1,291,539	\$1,471,541

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
238330	\$0	\$0	\$8,137	\$0	\$571,228	\$579,365	\$2,346,997	\$2,926,362
238350	\$0	\$57,954	\$0	\$0	\$88,152	\$146,106	\$2,537,516	\$2,683,622
238390	\$0	\$332,221	\$0	\$0	\$0	\$332,221	\$1,794,691	\$2,126,912
238910	\$0	\$5,850	\$0	\$0	\$130,346	\$136,196	\$3,450,642	\$3,586,838
238990	\$0	\$819,840	\$3,200	\$0	\$25,291	\$848,331	\$830,562	\$1,678,893
423210	\$0	\$0	\$0	\$0	\$2,405,456	\$2,405,456	\$1,070,559	\$3,476,015
423220	\$0	\$0	\$0	\$0	\$0	\$0	\$4,373	\$4,373
423390	\$0	\$0	\$3,220	\$0	\$0	\$3,220	\$0	\$3,220
423430	\$0	\$533,800	\$0	\$0	\$7,864,969	\$8,398,769	\$14,521,828	\$22,920,597
423440	\$0	\$0	\$0	\$0	\$0	\$0	\$6,678	\$6,678
423510	\$0	\$267,620	\$0	\$0	\$0	\$267,620	\$0	\$267,620
423620	\$0	\$0	\$0	\$0	\$0	\$0	\$345,884	\$345,884
423910	\$0	\$177,242	\$341,912	\$0	\$0	\$519,154	\$35,224	\$554,378
424120	\$0	\$0	\$0	\$0	\$57,500	\$57,500	\$0	\$57,500
424210	\$0	\$0	\$0	\$0	\$0	\$0	\$48,960	\$48,960
424690	\$0	\$6,500	\$0	\$0	\$0	\$6,500	\$0	\$6,500
484210	\$0	\$0	\$0	\$0	\$0	\$0	\$790,524	\$790,524
517311	\$0	\$0	\$0	\$0	\$0	\$0	\$825	\$825
518210	\$0	\$0	\$0	\$0	\$192,230	\$192,230	\$181,856	\$374,086
541310	\$1,579,022	\$68,447	\$0	\$0	\$25,533	\$1,673,001	\$7,235,265	\$8,908,266
541320	\$0	\$0	\$0	\$0	\$152,750	\$152,750	\$14,000	\$166,750
541330	\$423,974	\$757,412	\$2,008,374	\$223,263	\$653,612	\$4,066,634	\$4,412,479	\$8,479,113
541350	\$0	\$0	\$0	\$0	\$0	\$0	\$3,030	\$3,030

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
541370	\$0	\$0	\$0	\$0	\$169,993	\$169,993	\$5,625	\$175,618
541380	\$0	\$0	\$0	\$0	\$0	\$0	\$143,440	\$143,440
541410	\$0	\$0	\$0	\$0	\$5,400	\$5,400	\$0	\$5,400
541420	\$100,851	\$421,553	\$4,256	\$0	\$1,407,353	\$1,934,012	\$0	\$1,934,012
541430	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000	\$6,000
541511	\$0	\$0	\$51,900	\$0	\$4,800	\$56,700	\$851,895	\$908,595
541512	\$0	\$0	\$0	\$0	\$53,314	\$53,314	\$0	\$53,314
541611	\$0	\$2,918,185	\$0	\$0	\$1,145	\$2,919,330	\$0	\$2,919,330
541612	\$0	\$0	\$0	\$0	\$0	\$0	\$275,090	\$275,090
541618	\$165,000	\$0	\$0	\$0	\$0	\$165,000	\$0	\$165,000
541620	\$0	\$1,333,199	\$73,840	\$0	\$228,702	\$1,635,740	\$353,040	\$1,988,780
541690	\$0	\$0	\$0	\$0	\$13,000	\$13,000	\$0	\$13,000
541810	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000	\$125,000
541820	\$0	\$0	\$0	\$0	\$0	\$0	\$1,989,500	\$1,989,500
541990	\$0	\$100,000	\$0	\$0	\$0	\$100,000	\$66,000	\$166,000
561320	\$293,266	\$0	\$0	\$0	\$80,726	\$373,992	\$1,013,166	\$1,387,158
561439	\$0	\$0	\$0	\$0	\$172,468	\$172,468	\$105,000	\$277,468
561612	\$0	\$0	\$0	\$0	\$0	\$0	\$94,574	\$94,574
561710	\$0	\$0	\$0	\$0	\$0	\$0	\$3,675	\$3,675
561720	\$0	\$0	\$0	\$0	\$2,400	\$2,400	\$33,763	\$36,163
561730	\$5,880	\$0	\$0	\$0	\$93,202	\$99,082	\$1,640,959	\$1,740,040
561790	\$0	\$0	\$0	\$0	\$2,000	\$2,000	\$0	\$2,000
561990	\$0	\$0	\$0	\$0	\$0	\$0	\$189,733	\$189,733

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
562111	\$0	\$195,650	\$0	\$0	\$0	\$195,650	\$0	\$195,650
562910	\$0	\$0	\$0	\$0	\$4,944	\$4,944	\$1,104,556	\$1,109,500
621112	\$0	\$0	\$0	\$0	\$4,896,261	\$4,896,261	\$400,000	\$5,296,261
722310	\$0	\$0	\$0	\$0	\$30,000	\$30,000	\$32,697	\$62,697
812930	\$0	\$0	\$0	\$0	\$0	\$0	\$70,000	\$70,000
<b>Total</b>	<b>\$2,911,923</b>	<b>\$22,805,451</b>	<b>\$5,413,226</b>	<b>\$223,263</b>	<b>\$49,138,295</b>	<b>\$80,492,158</b>	<b>\$190,996,326</b>	<b>\$271,488,485</b>

Source: CHA analysis of Austin Independent School District data

**Table 2-6: Percentage Distribution of Contract Dollars by Race and Gender  
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
236210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
236220	0.1%	10.0%	1.9%	0.0%	13.3%	25.4%	74.6%	100.0%
237110	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
237210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237310	1.2%	3.5%	0.0%	0.0%	26.5%	31.2%	68.8%	100.0%
237990	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238120	0.2%	0.0%	6.9%	0.0%	0.0%	7.0%	93.0%	100.0%
238140	0.0%	1.1%	0.0%	0.0%	6.1%	7.2%	92.8%	100.0%
238150	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	99.9%	100.0%
238160	0.0%	0.0%	0.0%	0.0%	18.9%	18.9%	81.1%	100.0%
238210	0.5%	28.5%	0.2%	0.0%	30.1%	59.3%	40.7%	100.0%
238220	0.0%	1.3%	1.8%	0.0%	18.8%	21.8%	78.2%	100.0%
238290	0.0%	80.6%	0.0%	0.0%	0.0%	80.6%	19.4%	100.0%
238310	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	99.8%	100.0%
238320	0.0%	0.0%	0.0%	0.0%	12.2%	12.2%	87.8%	100.0%
238330	0.0%	0.0%	0.3%	0.0%	19.5%	19.8%	80.2%	100.0%
238350	0.0%	2.2%	0.0%	0.0%	3.3%	5.4%	94.6%	100.0%
238390	0.0%	15.6%	0.0%	0.0%	0.0%	15.6%	84.4%	100.0%
238910	0.0%	0.2%	0.0%	0.0%	3.6%	3.8%	96.2%	100.0%
238990	0.0%	48.8%	0.2%	0.0%	1.5%	50.5%	49.5%	100.0%
423210	0.0%	0.0%	0.0%	0.0%	69.2%	69.2%	30.8%	100.0%
423220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423390	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%
423430	0.0%	2.3%	0.0%	0.0%	34.3%	36.6%	63.4%	100.0%
423440	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
423510	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
423620	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%



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NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
423910	0.0%	32.0%	61.7%	0.0%	0.0%	93.6%	6.4%	100.0%
424120	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
424210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
424690	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
484210	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
517311	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
518210	0.0%	0.0%	0.0%	0.0%	51.4%	51.4%	48.6%	100.0%
541310	17.7%	0.8%	0.0%	0.0%	0.3%	18.8%	81.2%	100.0%
541320	0.0%	0.0%	0.0%	0.0%	91.6%	91.6%	8.4%	100.0%
541330	5.0%	8.9%	23.7%	2.6%	7.7%	48.0%	52.0%	100.0%
541350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541370	0.0%	0.0%	0.0%	0.0%	96.8%	96.8%	3.2%	100.0%
541380	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541410	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541420	5.2%	21.8%	0.2%	0.0%	72.8%	100.0%	0.0%	100.0%
541430	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541511	0.0%	0.0%	5.7%	0.0%	0.5%	6.2%	93.8%	100.0%
541512	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541611	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
541612	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541618	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
541620	0.0%	67.0%	3.7%	0.0%	11.5%	82.2%	17.8%	100.0%
541690	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541810	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541990	0.0%	60.2%	0.0%	0.0%	0.0%	60.2%	39.8%	100.0%
561320	21.1%	0.0%	0.0%	0.0%	5.8%	27.0%	73.0%	100.0%
561439	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	37.8%	100.0%
561612	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561710	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
561720	0.0%	0.0%	0.0%	0.0%	6.6%	6.6%	93.4%	100.0%
561730	0.3%	0.0%	0.0%	0.0%	5.4%	5.7%	94.3%	100.0%
561790	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561990	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
562111	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
562910	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	99.6%	100.0%
621112	0.0%	0.0%	0.0%	0.0%	92.4%	92.4%	7.6%	100.0%
722310	0.0%	0.0%	0.0%	0.0%	47.8%	47.8%	52.2%	100.0%
812930	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>Total</b>	<b>1.1%</b>	<b>8.4%</b>	<b>2.0%</b>	<b>0.1%</b>	<b>18.1%</b>	<b>29.6%</b>	<b>70.4%</b>	<b>100.0%</b>

Source: CHA analysis of Austin Independent School District data

## E. The Availability of M/WBEs for Austin Independent School District Contracts

### 1. The Methodological Framework

Estimates of the availability of M/WBEs in AISD’s geographic and product market are a critical component of AISD’s compliance with its constitutional obligation to determine whether it has a strong basis in evidence to support the use of race- and gender-conscious measures. The courts require that the availability estimates reflect the number of “ready, willing and able” firms that can perform specific types of work involved in the recipient’s prime contracts and associated subcontracts; general population is legally irrelevant.<sup>16</sup>

We applied the “custom census” approach, with refinements, to estimating availability. The courts and the National Model Disparity Study Guidelines<sup>17</sup> have recognized this methodology as superior to the other methods for at least four reasons:

- First, it provides an internally consistent and rigorous “apples to apples” comparison between firms in the availability numerator and those in the

16. 49 C.F.R. §25.45(c).

17. *National Disparity Study Guidelines*, pp.57-58. This was also the approach used in the successful defense of the Illinois Department of Transportation’s Disadvantaged Business Enterprise Program in the *Northern Contracting* case, discussed in Chapter II.

denominator. Other approaches often have different definitions for the firms in the numerator (*e.g.*, certified M/WBEs or firms that respond to a survey) and the denominator (*e.g.*, registered vendors or the Census Bureau’s County Business Patterns data).

- Second, by examining a comprehensive group of firms, it “casts a broader net” beyond those known to the agency. As recognized by the courts, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. Our methodology is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidders lists, because it seeks out firms in AISD’s market area that have not been able to access the agency’s opportunities.
- Third, this approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications, and experience are all elements of business success where discrimination would be manifested. Several courts have held that the results of discrimination – which impact factors affecting capacity – should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority and woman firms may be smaller, newer, and otherwise less competitive than non-M/WBEs because of the very discrimination sought to be remedied by race-conscious contracting programs. Racial and gender differences in these “capacity” factors are the outcomes of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as “control” variables in a disparity study.<sup>18</sup>
- Fourth, it has been upheld by every court that has reviewed it, including most recently in the successful defense of the Illinois State Toll Highway’s M/WBE program, for which we served as testifying experts.<sup>19</sup>

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

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

First, we eliminated any duplicate entries in the geographically constrained FCDF. Some firms received multiple contracts for work performed in the same NAICS codes. Without this elimination of duplicate listings, the availability

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

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

database would be artificially large. This list of unique firms comprised the first component of the Study's availability determination.

To develop the Master Directory, we utilized the Texas Unified Certification Program Directory, the City of Austin's M/WBE Directory and AISD's Contract Data File. We limited the firms we used in our analysis to those operating within AISD'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 AISD's market area to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identified a firm as being minority-owned.<sup>20</sup> 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 AISD contracts.

## **2. The Availability Data and Results**

Tables 2-7 through 2-9 present data on:

- The unweighted availability percentages by race, gender and by NAICS code for AISD's product market;
- The weights used to adjust the unweighted numbers;<sup>21</sup> and

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

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

- The final estimates of the weighted averages of the individual six-digit level NAICS availability estimates in AISD’s market area.

We “weighted” the availability data for two reasons. First, the weighted availability represents the share of total possible contractors for each demographic group, weighted by the distribution of contract dollars across the NAICS codes in which AISD spends its dollars.

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 AISD’s contracting patterns.<sup>22</sup> 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 AISD spends only one percent of its contract dollars in this NAICS code, then this high availability would be offset by the low level of spending in that NAICS code. In contrast, if AISD spent 25% of its contract dollars in NAICS Code 123456, then the same availability would carry a greater weight. For an extended explanation of how unweighted and weighted availability are calculated, please see Appendix D.

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 2-7. 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 AISD’s spending in that NAICS code, presented in Table 2-8. This share is the *weight*. Using the previous example, where AISD 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 say “the component of M/WBE weighted availability for NAICS Code 123456” because this process is repeated for each NAICS code and then the components are summed to generate an overall weighted availability estimate. The results of this calculation are presented in Table 2-9.

**Table 2-7: Unweighted M/WBE Availability for Austin Independent School District Contracts**

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
236210	8.8%	5.9%	1.5%	0.0%	16.2%	32.4%	67.6%	100.0%
236220	3.7%	7.0%	2.0%	0.7%	11.1%	24.5%	75.5%	100.0%
237110	0.4%	9.3%	0.8%	0.0%	6.6%	17.1%	82.9%	100.0%
237210	0.1%	0.3%	0.0%	0.0%	0.6%	1.0%	99.0%	100.0%

22. <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

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NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
237310	3.7%	11.0%	1.5%	0.3%	7.3%	23.8%	76.2%	100.0%
237990	2.2%	10.1%	2.2%	0.0%	4.5%	19.1%	80.9%	100.0%
238110	0.7%	4.0%	0.2%	0.2%	2.0%	7.0%	93.0%	100.0%
238120	1.7%	13.8%	5.2%	1.7%	12.1%	34.5%	65.5%	100.0%
238140	1.6%	6.1%	0.4%	0.0%	4.9%	13.0%	87.0%	100.0%
238150	3.1%	1.6%	0.0%	0.0%	6.3%	10.9%	89.1%	100.0%
238160	0.1%	1.7%	0.1%	0.1%	2.2%	4.3%	95.7%	100.0%
238210	0.5%	2.7%	0.7%	0.2%	5.1%	9.2%	90.8%	100.0%
238220	0.3%	1.5%	0.7%	0.0%	2.5%	5.1%	94.9%	100.0%
238290	2.8%	5.6%	0.0%	2.8%	0.0%	11.1%	88.9%	100.0%
238310	0.3%	3.0%	0.3%	0.3%	4.7%	8.6%	91.4%	100.0%
238320	0.1%	2.1%	0.1%	0.2%	1.7%	4.2%	95.8%	100.0%
238330	0.9%	4.3%	1.7%	0.0%	6.0%	12.9%	87.1%	100.0%
238350	1.1%	1.1%	0.5%	0.0%	3.8%	6.6%	93.4%	100.0%
238390	0.5%	2.9%	0.5%	0.5%	1.9%	6.2%	93.8%	100.0%
238910	0.0%	6.3%	1.4%	0.0%	7.7%	15.3%	84.7%	100.0%
238990	0.3%	2.0%	0.2%	0.1%	2.8%	5.4%	94.6%	100.0%
423210	0.0%	1.5%	1.5%	0.0%	15.2%	18.2%	81.8%	100.0%
423220	0.0%	0.8%	0.0%	0.0%	8.5%	9.3%	90.7%	100.0%
423390	2.0%	5.9%	2.0%	2.0%	9.8%	21.6%	78.4%	100.0%
423430	0.5%	2.9%	1.9%	0.0%	5.7%	11.0%	89.0%	100.0%
423440	0.3%	0.0%	0.0%	0.3%	1.6%	2.1%	97.9%	100.0%
423510	0.0%	3.5%	1.2%	1.2%	7.0%	12.8%	87.2%	100.0%
423620	2.4%	0.0%	0.0%	0.0%	4.8%	7.1%	92.9%	100.0%
423910	0.0%	1.3%	1.3%	0.0%	2.5%	5.0%	95.0%	100.0%
424120	8.5%	0.0%	0.0%	0.0%	10.2%	18.6%	81.4%	100.0%
424210	1.4%	0.7%	0.7%	0.0%	7.9%	10.7%	89.3%	100.0%
424690	0.0%	4.3%	2.2%	1.1%	5.4%	12.9%	87.1%	100.0%
484210	0.7%	0.0%	0.0%	0.0%	7.1%	7.8%	92.2%	100.0%
517311	1.7%	2.3%	0.0%	0.6%	5.2%	9.9%	90.1%	100.0%

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NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
518210	1.2%	2.7%	2.1%	0.0%	8.1%	14.1%	85.9%	100.0%
541310	1.5%	3.1%	1.5%	0.2%	10.6%	16.8%	83.2%	100.0%
541320	0.0%	1.5%	0.4%	0.0%	4.5%	6.4%	93.6%	100.0%
541330	1.5%	6.1%	4.6%	0.1%	8.1%	20.4%	79.6%	100.0%
541350	1.6%	2.4%	0.8%	0.0%	3.2%	7.9%	92.1%	100.0%
541370	2.1%	7.0%	0.0%	1.1%	18.2%	28.3%	71.7%	100.0%
541380	0.8%	1.7%	1.7%	0.0%	2.0%	6.2%	93.8%	100.0%
541410	0.9%	0.7%	0.4%	0.0%	19.0%	21.0%	79.0%	100.0%
541420	5.1%	10.3%	5.1%	0.0%	17.9%	38.5%	61.5%	100.0%
541430	0.7%	1.2%	1.0%	0.0%	20.0%	22.9%	77.1%	100.0%
541511	0.9%	1.2%	3.3%	0.1%	4.3%	9.8%	90.2%	100.0%
541512	1.4%	2.4%	3.2%	0.3%	5.6%	12.9%	87.1%	100.0%
541611	2.1%	1.6%	0.8%	0.1%	7.2%	11.7%	88.3%	100.0%
541612	7.1%	0.5%	1.1%	0.0%	19.8%	28.6%	71.4%	100.0%
541618	0.5%	0.6%	0.3%	0.0%	3.0%	4.5%	95.5%	100.0%
541620	1.4%	3.6%	2.2%	0.0%	19.2%	26.4%	73.6%	100.0%
541690	2.8%	2.4%	1.9%	0.0%	8.8%	15.8%	84.2%	100.0%
541810	0.6%	2.7%	0.3%	0.0%	10.7%	14.2%	85.8%	100.0%
541820	3.8%	2.7%	0.7%	0.0%	16.7%	23.9%	76.1%	100.0%
541990	0.4%	0.5%	0.2%	0.0%	4.6%	5.7%	94.3%	100.0%
561320	2.2%	4.5%	4.0%	0.0%	8.0%	18.8%	81.3%	100.0%
561439	0.0%	7.7%	0.0%	0.0%	15.4%	23.1%	76.9%	100.0%
561612	2.2%	2.2%	0.0%	0.0%	3.9%	8.4%	91.6%	100.0%
561710	0.7%	0.0%	0.0%	0.0%	3.2%	3.9%	96.1%	100.0%
561720	2.0%	2.1%	0.3%	0.1%	4.6%	9.0%	91.0%	100.0%
561730	1.2%	1.5%	0.2%	0.1%	2.6%	5.6%	94.4%	100.0%
561790	0.6%	0.7%	0.1%	0.1%	2.2%	3.6%	96.4%	100.0%
561990	0.7%	0.9%	0.4%	0.1%	3.2%	5.3%	94.7%	100.0%
562111	0.0%	7.1%	0.0%	0.0%	21.4%	28.6%	71.4%	100.0%
562910	0.0%	15.0%	0.0%	0.0%	25.0%	40.0%	60.0%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
621112	0.5%	0.0%	0.0%	0.0%	3.4%	3.9%	96.1%	100.0%
722310	7.4%	3.7%	7.4%	0.0%	18.5%	37.0%	63.0%	100.0%
812930	1.7%	0.0%	0.0%	0.0%	1.7%	3.4%	96.6%	100.0%
<b>Total</b>	<b>0.9%</b>	<b>1.6%</b>	<b>0.8%</b>	<b>0.1%</b>	<b>4.6%</b>	<b>7.9%</b>	<b>92.1%</b>	<b>100.0%</b>

Source: CHA analysis of Austin Independent School District data; Hoovers; CHA Master Directory

These unweighted estimates can be used by AISD as the starting point for setting narrowly tailored Business Enterprise Program contract goals. The agency uses the B2Gnow® electronic data collection and monitoring system, and the goal setting module has been designed specifically to interface with our study methodology and results.

**Table 2-8: Distribution of the Austin Independent School District’s Spending by NAICS Code (the Weights)**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
236210	Industrial Building Construction	0.003%
236220	Commercial and Institutional Building Construction	37.0%
237110	Water and Sewer Line and Related Structures Construction	0.002%
237210	Land Subdivision	0.0001%
237310	Highway, Street, and Bridge Construction	4.1%
237990	Other Heavy and Civil Engineering Construction	0.1%
238110	Poured Concrete Foundation and Structure Contractors	0.1%
238120	Structural Steel and Precast Concrete Contractors	0.7%
238140	Masonry Contractors	1.2%
238150	Glass and Glazing Contractors	1.1%
238160	Roofing Contractors	1.8%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	16.8%
238290	Other Building Equipment Contractors	0.1%
238310	Drywall and Insulation Contractors	2.3%
238320	Painting and Wall Covering Contractors	0.5%
238330	Flooring Contractors	1.1%



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<b>NAICS</b>	<b>NAICS Code Description</b>	<b>WEIGHT (Pct Share of Total Sector Dollars)</b>
238350	Finish Carpentry Contractors	1.0%
238390	Other Building Finishing Contractors	0.8%
238910	Site Preparation Contractors	1.3%
238990	All Other Specialty Trade Contractors	0.6%
423210	Furniture Merchant Wholesalers	1.3%
423220	Home Furnishing Merchant Wholesalers	0.002%
423390	Other Construction Material Merchant Wholesalers	0.001%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	8.4%
423440	Other Commercial Equipment Merchant Wholesalers	0.002%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.1%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.1%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.2%
424120	Stationery and Office Supplies Merchant Wholesalers	0.02%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.02%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.002%
484210	Used Household and Office Goods Moving	0.3%
517311	Wired Telecommunications Carriers	0.0003%
518210	Data Processing, Hosting, and Related Services	0.1%
541310	Architectural Services	3.3%
541320	Landscape Architectural Services	0.1%
541330	Engineering Services	3.1%
541350	Building Inspection Services	0.001%
541370	Surveying and Mapping (except Geophysical) Services	0.1%
541380	Testing Laboratories	0.1%
541410	Interior Design Services	0.002%
541420	Industrial Design Services	0.7%
541430	Graphic Design Services	0.002%
541511	Custom Computer Programming Services	0.3%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
541512	Computer Systems Design Services	0.02%
541611	Administrative Management and General Management Consulting Services	1.1%
541612	Human Resources Consulting Services	0.1%
541618	Other Management Consulting Services	0.1%
541620	Environmental Consulting Services	0.7%
541690	Other Scientific and Technical Consulting Services	0.005%
541810	Advertising Agencies	0.05%
541820	Public Relations Agencies	0.7%
541990	All Other Professional, Scientific, and Technical Services	0.1%
561320	Temporary Help Services	0.5%
561439	Other Business Service Centers (including Copy Shops)	0.1%
561612	Security Guards and Patrol Services	0.03%
561710	Exterminating and Pest Control Services	0.001%
561720	Janitorial Services	0.01%
561730	Landscaping Services	0.6%
561790	Other Services to Buildings and Dwellings	0.001%
561990	All Other Support Services	0.1%
562111	Solid Waste Collection	0.1%
562910	Remediation Services	0.4%
621112	Offices of Physicians, Mental Health Specialists	2.0%
722310	Food Service Contractors	0.02%
812930	Parking Lots and Garages	0.03%
<b>TOTAL</b>		<b>100.0%</b>

Source: CHA analysis of Austin Independent School District data

Table 2-9 presents the weighted availability results for each of the racial and gender categories. The aggregated availability of M/WBEs, weighted by AISD’s spending in its geographic and industry markets, is 16.4%.

**Table 2-9: Aggregated Weighted Availability for Austin Independent School District Contracts**

Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
2.0%	4.7%	1.5%	0.3%	7.8%	16.4%	83.6%	100.0%

Source: CHA analysis of Austin Independent School District data; Hoovers; CHA Master Directory

### 3. Analysis of the Concentration of Contract Dollars among Firms

In addition to examining the level of M/WBE and non-M/WBE contract dollar utilization, another important dimension to a disparity analysis is an examination of any asymmetries between the NAICS codes where the agency spends large shares of its funds and the NAICS codes that provide M/WBEs' and non-M/WBEs' largest shares of their earnings. This analysis is important for two reasons. First, to the extent the NAICS codes where the agency spends the largest shares of its funds align with the codes that provide the largest shares of non-M/WBE earnings AND these NAICS codes are different from the codes that provide large shares of M/WBE earnings, this indicates that M/WBEs do not enjoy the same position in the agency's marketplace as non-M/WBEs. Second, if an asymmetry exists between agency spending and M/WBE earnings, then the high utilization of M/WBEs as a group will mask unequal opportunities at a more granular level. Consequently, a race- or gender-based remedial program may still be supportable. This section presents data to examine this issue.

Prior to presenting these data, it is important to emphasize two important findings: 1) for Blacks, Hispanics, Asians, and Native Americans, the three NAICS codes that provide the most contract dollars to each M/WBE group capture a larger share of the overall AISD spending received by the group than the share of overall AISD spending captured by the top three NAICS codes for AISD's overall spend; 2) when examining the leading NAICS codes for Blacks, Hispanics, Asians, and Native Americans, the share of the groups' overall earnings exceeds the share of non-M/WBEs' overall earnings.

With respect to the first finding, Table 2-10 presents data on the share of AISD's contract dollars received by the top three NAICS codes for each demographic group. These shares are derived from the data presented in Tables 2-5 and 2-6. The three NAICS codes where AISD spent most of its contract dollars capture 62.3% of all AISD spending. For Blacks, Hispanics, Asians, and Native Americans, the corresponding figure for the share of spending captured by the top three codes ranges between 100.0% (Native American) and 72.0% (Hispanic).

**Table 2-10: Comparison of the Share of the Austin Independent School District Spending Captured by the Top Three NAICS Codes for Each Demographic Group**

Demographic Group	Share of All AISD Spending in the Top Three NAICS Codes for Each Group
All	62.3%
Black	78.9%
Hispanic	72.0%
Asian	88.3%
Native American	100.0%
White Woman	60.6%
Non-M/WBE	65.5%

Source: CHA analysis of Austin Independent School District data

Table 2-11 provides more detail on the data presented in Table 2-10. Table 2-11 lists the top three codes for each group and their corresponding share of AISD’s total spending with each group.

**Table 2-11: The Top Three Austin Independent School District Spending NAICS Codes for Each Demographic Group**

NAICS	NAICS Code Label	WEIGHT	Total of Top 3 Codes
<b>All</b>			
236220	Commercial and Institutional Building Construction	37.0%	62.3%
238220	Plumbing, Heating, and Air-Conditioning Contractors	16.8%	
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	8.4%	
<b>Black</b>			
541310	Architectural Services	54.2%	78.9%
541330	Engineering Services	14.6%	
561320	Temporary Help Services	10.1%	
<b>Hispanic</b>			
236220	Commercial and Institutional Building Construction	44.1%	72.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	15.1%	
541611	Administrative Management and General Management Consulting Services	12.8%	

NAICS	NAICS Code Label	WEIGHT	Total of Top 3 Codes
<b>Asian</b>			
541330	Engineering Services	37.1%	88.3%
236220	Commercial and Institutional Building Construction	36.0%	
238220	Plumbing, Heating, and Air-Conditioning Contractors	15.2%	
<b>Native American</b>			
541330	Engineering Services	100.0%	100.0%
<b>White Woman</b>			
236220	Commercial and Institutional Building Construction	27.2%	60.6%
238220	Plumbing, Heating, and Air-Conditioning Contractors	17.4%	
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	16.0%	
<b>Non-M/WBE</b>			
236220	Commercial and Institutional Building Construction	39.2%	65.5%
238220	Plumbing, Heating, and Air-Conditioning Contractors	18.7%	
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	7.6%	

*Source: CHA analysis of Austin Independent School District data*

Tables 2-12 through 2-16 present data on the second finding: how AISD spending varies across groups. These results illustrate the different levels of concentration of contract dollars among M/WBEs compared to non-M/WBEs. For each demographic group, we restate the three NAICS codes where the group received the largest share of AISD’s spending (first presented in Table 2-11). Then, we present the weight for each code derived from AISD’s overall spending. Finally, present the share of all group contract dollars and compare that share to the corresponding share received by non-M/WBEs.

Table 2-12 presents the three NAICS codes where Black firms received the largest share of their contract dollars. While these codes captured 78.9% of all Black contract dollars, the corresponding figure for non-M/WBEs was 6.6%.

**Table 2-12: Three NAICS Codes where Black Firms Received the Most Spending**

NAICS Code	NAICS Code Label	Weight	Share of Total Black Dollars	Share of Total Non-M/WBE Dollars
541310	Architectural Services	3.3%	54.2%	3.8%
541330	Engineering Services	3.1%	14.6%	2.3%
561320	Temporary Help Services	0.5%	10.1%	0.5%
Total 3-code Share of Total Group Dollars			78.9%	6.6%

*Source: CHA analysis of Austin Independent School District data*

Table 2-13 presents the three NAICS codes where Hispanic firms received the largest share of their contract dollars. While these codes comprised 72.0% of all Hispanic contract dollars, the corresponding figure for non-M/WBEs was 41.8%.

**Table 2-13: Three NAICS Codes where Hispanic Firms Received the Most Spending**

NAICS Code	NAICS Code Label	Weight	Share of Total Hispanic Dollars	Share of Total Non-M/WBE Dollars
236220	Commercial and Institutional Building Construction	37.0%	44.1%	39.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	4.4%	15.1%	2.6%
541611	Administrative Management and General Management Consulting Services	1.1%	12.8%	0.0%
Total 3-code Share of Total Group Dollars			72.0%	41.8%

*Source: CHA analysis of Austin Independent School District data*

Table 2-14 presents the three NAICS codes where Asian firms received the largest share of their contract dollars. While these codes captured 88.3% of all Asian contract dollars, the corresponding figure for non-M/WBEs was 60.2%.

**Table 2-14: Three NAICS Codes where Asian Firms Received the Most Spending**

NAICS Code	NAICS Code Label	Weight	Share of Total Asian Dollars	Share of Total Non-M/WBE Dollars
541330	Engineering Services	3.1%	37.1%	2.3%
236220	Commercial and Institutional Building Construction	37.0%	36.0%	39.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	16.8%	15.2%	18.7%
Total 3-code Share of Total Group Dollars			88.3%	60.2%

Source: CHA analysis of Austin Independent School District data

Table 2-15 presents the one NAICS code where Native American firms received contract dollars. While all Native American contract dollars came from this code the corresponding figure for non-M/WBEs was 2.3%.

**Table 2-15: Three NAICS Codes where Native American Firms Received the Most Spending**

NAICS Code	NAICS Code Label	Weight	Share of Total Native American Dollars	Share of Total Non-M/WBE Dollars
541330	Engineering Services	100.0%	100.0%	2.3%
Total 3-code Share of Total Group Dollars			100.0%	2.3%

Source: CHA analysis of Austin Independent School District data

Table 2-16 presents the three NAICS codes where White woman firms received the largest share of their contract dollars. These codes comprise 60.6% of all White woman contract dollars; the corresponding figure for non-M/WBEs was 65.5%.

**Table 2-16: Three NAICS Codes where White Woman Firms Received the Most Spending**

NAICS Code	NAICS Code Label	Weight	Share of Total White Woman Dollars	Share of Total Non-M/WBE Dollars
236220	Commercial and Institutional Building Construction	37.0%	27.2%	39.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	16.8%	17.4%	18.7%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	8.4%	16.0%	7.6%
Total 3-code Share of Total Group Dollars			60.6%	65.5%

Source: CHA analysis of Austin Independent School District data

The data presented in Tables 2-10 through 2-15 support the inference that regardless of any statistical disparities between contract utilization and weighted availability, the experiences of M/WBEs with respect to participation in AISD’s procurements are significantly different than the experiences of non-M/WBEs. These results support the conclusion that while overall, M/WBEs have received fair opportunities to do work on AISD contracts, their work has been highly concentrated in a few codes. Race- and gender-conscious measures may still be supportable to ensure that minority and woman firms have equal opportunities to compete for all types of AISD contracts.

## F. Disparity Analysis of M/WBEs for Austin Independent School District Contracts

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

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

$$DR = U/WA$$

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

The courts have held that disparity results must be analyzed to determine whether the results are “significant”. There are two distinct methods to measure a result’s



significance. First, a “large” or “substantively significant” disparity is commonly defined by courts as utilization that is equal to or less than 80% of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.<sup>23</sup> 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.<sup>24</sup> 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 23 for more information.)

\* Connotes these values are statistically significant at the 0.05 level. (See Appendix C for more information.)

\*\* Connotes these values are statistically significant at the 0.01 level. (See Appendix C for more information.)

\*\*\* Connotes these values are statistically significant at the 0.001 level. (See Appendix C for more information.)

Table 2-17 presents the disparity ratios for each demographic group. The disparity ratios for Blacks and Native Americans were substantively significant. The disparity ratios for all groups except Native Americans are statistically significant at the 0.001 level.

**Table 2-17: Disparity Ratios by Demographic Group**

	<b>Black</b>	<b>Hispanic</b>	<b>Asian</b>	<b>Native American</b>	<b>White Woman</b>	<b>M/WBE</b>	<b>Non-M/WBE</b>
Disparity Ratio	54.3%‡***	178.1%***	130.6%***	25.7%‡	231.6%***	181.3%***	97.40%***

*Source: CHA analysis of Austin Independent School District data*

‡ Indicates substantive significance  
 \*\*\* Statistically significant at the 0.001 level

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23. 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.”).

24. 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.

In order to better understand the disparity ratios for Blacks, Hispanics and M/WBEs overall, we examined more closely the three NAICS codes where AISD spent 62.3% of its contract dollars. These three codes were selected because the share of AISD spending in these codes ranged from 37.0% to 8.4%. The next largest share was 4.4% and the remaining 63 NAICS codes accounted for just 37.7% of all AISD spending. For each NAICS code, we compared a demographic group’s utilization on AISD contract dollars to its unweighted availability. Table 2-18 presents this comparative data.

For Hispanics, the data indicate that in the NAICS code where AISD spends over one-third of its contracts (NAICS code 236220), Hispanic utilization exceeds Hispanic unweighted availability. For White women, utilization exceeds their unweighted availability in two of these codes (NAICS codes 238220 and 423430). These data might explain why the overall disparity ratios are high for these two groups.

**Table 2-18: Comparing Utilization and Unweighted Availability in the Three NAICS Codes Where the Austin Independent School District Spends Most of Its Funds**

		Black	Hispanic	Asian	Native American	White Woman	M/WBE	Non-M/WBE	Total
<b>NAICS Code 236220; Weight 37.0%</b>									
Utilization	236220	0.1%	10.0%	1.9%	0.0%	13.3%	25.4%	74.6%	100.0%
Unweighted Availability		3.7%	7.0%	2.0%	0.7%	11.1%	24.5%	75.5%	100.0%
<b>NAICS Code 238220; Weight 16.8%</b>									
Utilization	238220	0.0%	1.3%	1.8%	0.0%	18.8%	21.8%	78.2%	100.0%
Unweighted Availability		0.3%	1.5%	0.7%	0.0%	2.5%	5.1%	94.9%	100.0%
<b>NAICS Code 423430; Weight 8.4%</b>									
Utilization	423430	0.0%	2.3%	0.0%	0.0%	34.3%	36.6%	63.4%	100.0%
Unweighted Availability		0.5%	2.9%	1.9%	0.0%	5.7%	11.0%	89.0%	100.0%

Source: CHA analysis of Austin Independent School District data

## G. Conclusion

This Chapter examined AISD’s utilization of M/WBEs compared to non-M/WBEs; provided estimates of the availability of M/WBEs and non-M/WBEs to perform the types of goods and services utilized by AISD in its geographic market area; and

tested for whether there are significant disparities in the results of utilization compared to availability. Overall, we found that, compared to non-M/WBEs, minority- and woman-owned firms were concentrated in a different subset of industries.



# III. RECOMMENDATIONS FOR THE AUSTIN INDEPENDENT SCHOOL DISTRICT'S HISTORICALLY UNDERUTILIZED BUSINESS ENTERPRISE PROGRAM

This Report presents the results of our analysis of the Austin Independent School District's ("AISD's") geographic and product market areas; its utilization of Minority- and Woman-owned Business Enterprises ("M/WBEs")<sup>25</sup> as a percentage of all firms in those market areas, measured by dollars spent; and the disparity ratios between each racial and ethnic group and White women compared to non-M/WBEs. We also presented the anecdotal data from our other Texas studies, which are relevant and probative for AISD because they share similar markets. Based on these results, we make the following recommendations for a narrowly tailored HUB Program.

## A. Use the Study to Set Historically Underutilized Business Contract Goals

While the AISD's utilization of HUBS has been outstanding in the aggregate, it is also true that the utilization of M/WBEs has been highly concentrated in fewer codes than that of non-M/WBEs.

- For Blacks, Hispanics, Asians, and Native Americans, the three North American Industry Classification System ("NAICS") codes that provide the most contract dollars to each racial and ethnic group and White women capture a larger share of the overall AISD spending received by the group than the share of overall AISD spending captured by the top three NAICS codes for AISD's overall spend.

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25. The term M/WBE is equivalent to the term Historically Underutilized Business ("HUB"), the term AISD uses for its program.

- When examining the leading NAICS codes for Blacks, Hispanics, Asians, and Native Americans, the share of the groups' overall earnings exceeds the share of non-M/WBEs' overall earnings.

These findings suggest that regardless of any statistical disparities between contract utilization and weighted availability, the experiences of M/WBEs with respect to participation in AISD's procurements are significantly different than the experiences of non-M/WBEs. These results support the conclusion that while overall, M/WBEs have received fair opportunities to do work on AISD contracts, their work has been highly concentrated in a few codes. Narrowly tailored race- and gender-conscious goals may still be supportable to ensure that minority and woman firms have equal opportunities to compete for all types of AISD contracts.

We therefore suggest that AISD use the Study's detailed unweighted availability estimates as the starting point for contract specific goals for HUB participation. An agency's constitutional responsibility is to ensure that goals are narrowly tailored to the specifics of the project.

Narrowly tailored contract goal setting methodology involves four steps, regardless of the industry scopes of work of the project:

- Weight the estimated dollar value of the scopes of the contract by six-digit NAICS codes, as determined during the process of creating the solicitation.
- Determine the unweighted availability of HUBs in those scopes, as estimated in the Disparity Study.
- Calculate a weighted goal based upon the scopes and the availability of at least three available firms in each scope.
- Adjust the resulting percentage based on current market conditions and progress towards the annual goal.

Written procedures spelling out the steps should be drafted and disseminated.

AISD's current electronic data collection and monitoring system, B2Gnow<sup>®</sup>, contains a contract goal setting module that has been designed to integrate the results of our disparity studies into the system to simplify the process and develop defensible goals. We suggest the agency utilize this module as the starting point for its contract specific goal setting.

Where there is a significant change order issued by AISD, the contract goal should be evaluated to determine the change's impact on goal attainment. If an M/WBE's scope is reduced such that the original contract goal will not be met, the contractor should be required to make good faith efforts ("GFE") to add participation if possible

We further urge AISD to bid some contracts without goals that it determines have significant opportunities for HUB participation. These control contracts can illuminate whether certified firms are used, or even solicited, in the absence of goals. This is especially important given the high utilization of M/WBEs during the study period. The development of some “unremediated markets” data, as held by the courts, will be probative of whether the Program remains needed to ensure the playing field remains level for minorities and women.

## **B. Conduct Outreach to a Broad Range of Industries**

We suggest taking affirmative steps to target industries in which HUBs have not fully participated for future prime contracting and subcontracting opportunities. For example, while Commercial and Institutional Building Construction, NAICS code 236220, received 74.6% of AISD’s dollars, Black-owned firms received only 0.1% of those dollars. Additional outreach and support might help to increase opportunities. Enhanced efforts could include holding special vendor fairs, enlisting the assistance of industry groups to encourage their members to submit bids for agency work, and contacting individual certified firms to ensure that they are aware of specific solicitations. More participation in a broader range of industries will also help to lessen the need for contract goals in industries with high M/WBE concentration, thereby reducing the burden on non-M/WBEs, a factor of the narrow tailoring standard for strict constitutional scrutiny.

## **C. Develop Performance Measures for Program Success**

AISD should develop quantitative and qualitative performance measures for HUBs and the overall success of the Program to evaluate its effectiveness in reducing the systemic barriers identified in this Report. Possible benchmarks might be:

- The number of bids or proposals, the industry and the dollar amount of the awards and the goal shortfall where the bidder was unable to meet the goal and submitted GFE to do so.
- The number, dollar amount and the industry code of bids or proposals rejected as non-responsive for failure to make GFE to meet the goal.
- The number, industry and dollar amount of HUB substitutions during contract performance.
- Increased bidding by certified firms as prime vendors.
- Increased prime contract awards to certified firms.
- Increased HUB bonding limits, size of jobs, profitability, complexity of work, etc.

- Increased variety in the industries in which minority- and woman-owned firms are awarded prime contracts and subcontracts.

## **D. Continue to Conduct Regular Program Reviews**

AISD should adopt a sunset date for the current Program, a requirement of the federal courts. Data should be reviewed approximately every five to six years, to evaluate whether race- and gender-based barriers have been reduced such that affirmative efforts are no longer needed. If such measures are necessary, AISD must ensure that they remain narrowly tailored.



# 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;  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  are coefficients, and  $\mu$  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 Austin Independent School District, the analysis was limited to the Austin Metropolitan Statistical Area which consists of 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;  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are coefficients, and  $\mu$  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.<sup>26</sup> 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.

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26. The exact interpretation depends upon the functional form of the model.

# APPENDIX C:

## SIGNIFICANCE LEVELS

Many tables in this Report contain asterisks that indicate a number has statistical significance at 0.001, 0.01, or 0.05 levels (sometimes, this is presented as 99.9%; 99% and 95%, respectively) and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This Appendix provides a general explanation of significance levels.

This Report seeks to address the question of whether or not non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing the Austin Independent School District 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% 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% less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find the probability that the observed relationship (*e.g.*, -35%) is between 0 and minus that confidence interval.<sup>27</sup> The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. When a number is statistically significant at the 0.001 level, this indicates that we can be 99.9% certain that the number in question (in this example, -35%) lies outside of the confidence interval. When a number is statistically significant at the 0.01 level, this indicates that we can be 99.0% certain that the number in question lies outside of the confidence interval. When a number is statistically significant at the 0.05 level, this indicates that we can be 95.0% certain that the number in question lies outside of the confidence interval.

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27. Because 0 can only be greater than -35%, we only speak of “minus the confidence level”. This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

# APPENDIX D:

## 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
<b>TOTAL</b>	<b>40</b>	<b>45</b>	<b>53</b>	<b>12</b>	<b>48</b>	<b>1230</b>	<b>1428</b>

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%
<b>TOTAL</b>	<b>2.8%</b>	<b>3.2%</b>	<b>3.7%</b>	<b>0.8%</b>	<b>3.4%</b>	<b>86.1%</b>	<b>100.0%</b>

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%
<b>TOTAL</b>	<b>\$4,500.00</b>	<b>100.0%</b>

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
<b>TOTAL</b>	<b>0.028</b>	<b>0.029</b>	<b>0.037</b>	<b>0.008</b>	<b>0.034</b>	<b>0.864</b>

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 woman-owned firms in the Texas marketplace.

This summary of anecdotal reports provides an overview of the following Disparity Studies: the [City of Austin 2022](#) (“Austin”); [Capital Metro 2022](#) (“CapMetro”); [Harris Health System 2022](#) (“Harris Health”); [Travis County Healthcare District 2022](#) (“Central Health”); [Travis County 2021](#) (“Travis County”); the [San Antonio Water System 2021](#) (“SAWS”); [Harris County 2020](#) (“Harris County”); the [City of Fort Worth 2020](#) (“Fort Worth”); the [City of Arlington 2020](#) (“Arlington”); [Texas Department of Transportation 2019](#) (“TxDOT”); the [Dallas Fort Worth International Airport 2019](#) (“DFW”); [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.

Racism still exists and the construction industry is one that still has a lot of small to mid-size businesses that still discriminate. (Travis County, page 200)

On a construction site, I once heard an employee say that we were a “check the box” hire. (SAWS, page 182)

We have run into larger firms who think small DBE/HUB firms do not do good work. Often larger firms are scared to do business with small DBE firms due to this stereotype. (Austin, page 242)

Sometimes [minority status is] a disadvantage, unfortunately. (Travis County, page 181)

I find that when I would go to places to speak and take my examiner with me who is not a Black person, all questions are directed to him.... They'd say things like, "Okay, we're going to give you our business. I'm sure your boss will be proud of you." The assumption was made that it was someone else's company and I was perhaps a salesperson. (Harris Health, page 118) 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, page 95)

We don't typically say we are a Black-owned firm or we are a minority. Because, again, that's not why we're there.... But the gentleman said to me... "go back and talk with your bosses and I'll be happy to have a conversation with them and go from there." And we looked at each other and we said, "Okay, we'll just do that. Thank you, thank you for your time." (Harris Health, page 118)

Usually, the first reaction that they have to DBEs is not a pleasant one.... Not all DBEs are equal on the business level. And when they've had some bad experiences, it can give them an opportunity or basically kind of make them wince or shy away. So, I try to avoid that at all costs and do the qualifications first. Once they're interested, genuinely interested because of the qualifications and it fills a need for them, then I'll say, "Oh, yes. And as a value add, we are also..." (Travis County, page 181)

Black businesses are stereotyped as less than equipped for major projects. (Travis County, page 200)

If there is an employer asking for design and or leadership role, who's in charge kind of deal, and beside me there is a Caucasian person, the employers tend to ask him and assume he is in charge before even asking me who I am, even though he is my

helper. This has happened multiple times. (Austin, page 241, survey)

There's a perception that [MBEs fail to do the work that] we as a group have to constantly go up against. (SAWS, page 169)

I have witnessed a company go to a white company outside the USA to come in and provide the service when we are located in the USA. When they run into an issue, only then will we receive a call for help. (Travis County, page 200)

I've been told not to mention that we are a HUB [Historically Underutilized Business]/WOSB [Woman-owned Small Business] because we will not be taken seriously. (Travis County, page 203)

There's the stigma of being certified, you could say, but then there's this stigma of being Black and a woman. (CapMetro, page 135)

My whole time as an MBE/HUB consultant [my competency has been questioned.] (Travis County, page 203)

[The prime contractors] start to refer to me as the "diversity firm." So, they're like, "Who's the diversity firm?" And then they proceed to talk to me as though I'm not in the room and sort of you're just here because we have to do this. (Austin, pages 222-223)

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)

It's a daily struggle [racial harassment]. I have to hide the fact that I'm black and female in order to even be considered. (Travis County, page 200)

I have known White females that are very capable and successful as consultants. I have met African American women who tried to start their own company. I have never known one that succeeded, because they just cannot get work. I have met several Hispanic and African American people, personally, who tried and never succeeded. And there are a few of us who are trying to make it. (Central Health, page 129)

People just don't take you seriously 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! (SAWS, page 182)

There is a negative connotation out there with MBE or WBE firms that they're not as qualified. I was actually on a conversation about two weeks ago with a prime firm. And they're talking about how they had too many MBE or DBE firms on their team, and it was going to drag their team down during the interview. And so, it wasn't just, that they had too many partners. It was that they were MBE or DBE firms. So, that is definitely out there. And a lot of people do see it as like, "Oh, I have to do this, because the City is making me. Not that I want to do this, because there are good people to work with or they're good firms." So, there definitely is negative connotation out there towards minority-owned businesses. (Austin, page 222)

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)

Sometimes [large general contractors] underestimate what we'll do. We try to be as professional as possible, but we expect the same thing back from them. (CapMetro, page 135)

Most Caucasian employers see Hispanics as labor workers only, [they] do not see us as a relevant workforce on arts, science and/or [as] entrepreneurs. (Austin, page 241, survey)

It [discriminatory behavior] is deep and very systematic. You cannot know what is going on because it is deep. (Austin, page 242)

It's usually more of the smaller [construction firms], but especially if I go into a place where they're putting in a [project], they don't necessarily believe that I understand what I'm talking about.... I can say it, and then I can have whoever the male beside me is say it and it'll be like, "Oh, okay. Yeah, yeah, we got that." I'm like, "yeah." It's something that I think a lot of us have learned to deal with, but it's shockingly still very

prevalent. I don't know how prevalent it is everywhere, but definitely in our industry. (Austin, page 225)

[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)

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. (SAWS, page 170)

[The Program] allowed us to have experience working with larger firms and working on larger projects. It's like a two-sided thing now, that was the good side. It's given us all this experience and been able to work on really some fantastic projects. But at the same time, there is that stigma... You're just a WBE firm. (Austin, page 223)

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 businesspeople, not because they're better businesspeople, but because people are carrying them. (Fort Worth, page 137)

You just have to prove yourself over and over and over again... [Prime contractors are] like, "Oh, another minority company. Like I have to work with you." And then you're a chick. And like, "do you know what you're doing?" (Austin, page 223)

Many large firms and clients believe HUB or DBE firms do not do good work. We are often looked down on because we have a HUB or DBE certification. (Travis County, page 203)

It's a daily struggle [against racial harassment]. I have to hide the fact that I'm black and female in order to even to be considered. (Travis County, page 200)

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)

Received questioning of competency on ability and knowledge in landscape construction during installation of a major project. Not uncommon for another contractor or sub to avoid asking a female on our team by asking a male on our team. (Travis County, page 202)

It's often subtle-someone else undercutting something when I say it, but if a male colleague speaks up, the idea isn't met with resistance, etc. (Austin, page 241, survey)

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. (SAWS, page 182)

It's based on race, despite living in a high Hispanic city, we are often dismissed as not as competent. (SAWS, page 182)

A few owners had been able to turn initial negative assumptions into positive relationships.

Most general contractors, in my experience, see the MBE, DBE thing not as a positive thing, but more of a pain in the butt to them. So, you try to turn around, and that's what I do is try to see it as a mutual beneficial thing to them. At the beginning, it starts as "You're a pain in the butt," but then at the end, they see you as a valued team member. So, it does take a little time just to turn that tide, but I see it probably three out of four



times. People see it as a pain in the butt. I'm going to have to babysit. No, you don't. We know what we're doing. We're qualified. We're professional and we can add value. (CapMetro, page 138)

Many women reported unfair treatment in the business world. Women are often assumed to be less competent.

Sometimes I get statements like, "Are you sure you can do the work?" (TxDOT, page 162)

I am a female who knows what I am providing and I am constantly being questioned.... I have worked and actually know what I am doing. I have to constantly remind these people (99% white males) to look at my resume. (Austin, page 240)

Our team has project management and process improvement experience, but we are perceived as less capable because we are a majority of female employees. (SAWS, page 183)

This person just really had a problem with women in business. Period. And I was not the only one that was subjected to his vile treatment. It was very nasty language in front of you, dressing you down, trying to do everything they could to make you look bad in business. Faking situations so that it was looking like you weren't performing, falsifying documents, to that point. And it wasn't just me in this project. It was all of the women that were running into this. I was simply the only one that kept very good records, and said, no, this has to stop. (CapMetro, page 135)

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". (SAWS, page 183)

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)

Being woman owned and African American doesn't help. I see general contractors helping subcontractors with insurance bonding and materials but not us. (SAWS, page 182)

I work in tech and experience a variety of gender-related harassment as a matter of course. (Travis County, page 202)

I am an African American, female business owner. Based on the racial climate in our country I am sure I have been judged and

excluded from opportunities because of my sex and race. (Austin, page 240, survey)

You would think that by proving yourself through the entire process, that somewhere along the line, that you would gain a certain amount of respect and it still doesn't exist. I have dealt with manufacturers' reps who have refused to do business with me because I was a woman. (CapMetro, page 135)

Good ol' boys' club mentality that includes beginning comments with "honey" and comments such as "maybe this isn't a good fit for your type of company" – each spoken by different males to female employees on our staff. (Austin, page 244)

The majority of G[eneral] C[ontractor]s utilize the good ol[e] boy system. I believe they think I don't know anything about construction since I am female. (SAWS, page 183)

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)

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." (Fort Worth, page 135)

As a minority woman in construction, we are not given the fair opportunities as white male owned firms. (SAWS, page 183)

It is not difficult to get a sense that, for construction work, a preference exists for a male focused company to be the contractor or sub, particularly when the room is packed with males (example, a "get to know the prime" event). When standing in line to discuss a project with a prime, the men before and after have been given more time, discussion, sincerity, and contact info for additional work than our females have received from the GC's reps at the event. It is not an isolated thing. (Travis County, page 203)

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)

My name looks male, along with my engineering background, have been in business situations where I was the only female mistakenly invited because they didn't know I was female. (Austin, page 242, survey)

I have walked away from many meetings where I sat there with one of my male employees, I did all the talking, I answered all the questions, they stand up and shake his hand. The man did not say a word the entire meeting and say, "thank you, we look forward to doing work with you". And I'm like, glad I brought you, because apparently that's what it took to get the job. (CapMetro, page 135)

[Texas is] a good old boy state. It is a fact of life whether you're a woman, small business, whatever. Ladies, the only way we get a chance is we have to legally stand up and demand that we get a fair trial, that we be put on a level playing field by having rules and regulations.... [Women] are always behind. We will always be behind in this state. (Dallas County, page 101)

I've had people ask if my husband started and/or runs the business. I'm single. (Travis County, page 201)

I am unable to obtain sufficient funding for growth from my banks for many years. In the first years of growing the company, my bank VP told me twice to come back with my husband before they could discuss my application for funding. Recently, I was able to receive sufficient funding from the SBA. (Austin, page 245, survey)

I am a middle-aged woman in tech and I am often talked down to by younger male acquaintances who do not believe I have such a deep level of expertise. (Austin, page 243, survey)

They still see women as a support system. They do not see us as businesspeople. (Fort Worth, page 136)

Sometimes when there are meetings called, us females are left out. We're not included in the meetings. (SAWS, page 170)

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)

I do work in technology and yeah, I've had some really bad experiences with White male business owners.... The industry is essentially run by White dudes. (Travis County, page 183)

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)

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)

As a woman and minority firm in construction, it is difficult to acquire qualified field staff to perform our trade because most are males that network with other males or male-owned contractors. (Austin, page 245, survey)

I'm generally the only woman in the room, so that's definitely an issue for me. (Travis County, page 182)

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. (SAWS, page 182)

Sometimes, a contractor or subcontractor on a job site will look at and speak to unlicensed male intern who I brought to the site with me, rather than me. (SAWS, page 183)

You kind of try to figure out over the years how they want you to be, and you try to be that. But, it's still a surprise a lot of times when you are a strong woman, you have strong opinions, you know what you're doing, and you run across a younger Turk or who's an alpha. They simply do not respond to you. (Travis County, page 182)

Fieldwork opportunities [are] sometimes not offered due to difficulty creating women-only overnight accommodations. (Travis County, page 203)

Women used various strategies to overcome biased attitudes.

I couldn't get access to financing for a long time. And in 2009, I hired a White man to be our controller. And after that, we didn't have any problems getting financing. It was like night and day. (Austin, page 226)

Some women reported they still experience sexual harassment or hostile environments.

In general, [I] have to limit the networking activities we participate in to avoid potential sexual harassment situations with potential customers. (Travis County, page 200)

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) 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 have had requests for sexual relationships from both male and female perspective clients. I have also experienced inappropriate touching from a client. (Austin, page 243, survey)

A male agreed that sexism is still present in the construction industry.

As a man, yeah, it happens. With the minorities I don't know a lot, but with women, for sure. In construction, there's a lot of men outside, and it happens. I have to make rules with my employees, I have to shut them up, tell them to stop looking. You have to talk to them kind of tough and learn not to say anything. And we made up a three second rule, you look one two three and then turn around. (Austin, pages 225-226)

## **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 decision makers. 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).

You're not in the frat. You didn't get the letter, you know? You didn't get the call. (Harris County, page 100)

Breaking into city work is definitely its own challenge. So, the good old boy club is in full regalia. (SAWS, page 171)

A lot of our issue, especially in the transportation industry, comes down the network, the good old boy network. (CapMetro, page 136)

Entrenched relationships, and yes, definitely a “good old boy” network in Austin, particularly for prime jobs. (Austin, page 244, survey)

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, page 100)

The procurement process I said it's the Wizard of Oz of our work. No one knows exactly who to contract, we don't know what specific certifications are needed, what steps are in the process or even where you stand. Literally, we respond to the RFPs if we know where to find it, if it happens to come to us in time. So then, we do all the work to respond and then we shoot

this out to this phantom and ... it's always, "Well, it's in procurement. Well, who is that? Well, it's in procurement. Well, where are we in the phase? Well, it's in procurement. (Central Health, page 130)

I had a meeting with a general contractor to establish a good rapport and the GC kept discussing all his friends and I mentioned that it was an established network and he said of course it is and that it would be difficult for me to break in. I just quit after that. (Austin, page 244, survey)

If relationships was a thing that worked, then we wouldn't need the DBE program.... How can the DBE work for people who can't have relationships with folks who don't want to have relationships with them? Cause that's very important. We have to understand it. These are people who do not want to have relationship with us, that's the reason why we need a DBE program. (CapMetro, page 136)

People do business with people that they know and that they trust halfway. And if they don't know you, or you're just a quote on a fax machine or an email quote, there's no relationship there, okay. And then even if they use you ... they'll shuck and jive you and put you through all these hoops and what not and everything, because there is no relationship there. (Austin, page 224)

Yes, based on history and experience, I have not had access to the same contracting opportunities that larger firms with more history in the area, larger workforces with marketing departments, and better name recognition. (Travis County, page 205)

As an MBE, we do receive some mail regarding networking opportunities, but [we] might not have all of the information possible. (SAWS, page 185)

There is not even the opportunity to see who you are, who you know, or what you have done or what you studied or anything like that. (Central Health, page 128)

There is still, I believe, a barrier to even just being invited to the networking events or, if you're going to a conference and somebody is hosting a kind of cocktail hour because if you don't already know those people, you're not already in those clubs, it's a little bit hard to get those invites and know where those

places are where potentially a lot of good networking is out there. (Austin, page 224)

If you're already not already in, it's hard to break in as an unknown or who's not done work with SAWS. (SAWS, page 171)

I believe it's about who you know, so although I am HUB certified and applied for business opportunities, I believe I am still not given the information needed to help me execute the opportunity (Travis County, page 204)

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).

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)

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)

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)

Large firms have the resources to donate money to local politicians and often receive information about opportunities that are not available to others. (Travis County, page 205)

Vendor lack of experience with small businesses results in questioning a business' capabilities. (Travis County, page 205)



### **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)

When you are a minority of a single type, or a double type as a Black female, what ends up happening is that you don't get the shot. (CapMetro, page 136)

[We have not been] admitted into the inner circle of networking relationships between male-dominated IT service companies and male client team members, especially for larger projects. (Austin, page 245, survey)

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. (SAWS, page 171)

Contractors just don't really want to use us unless there are goals. Even as a Native American-owned firm, because the goal is so low, they only want to get that little tiny amount from us to satisfy the goal but not really be open to purchasing the other materials we carry. (Austin, page 245, survey)

If you don't have the DBE program, we're never going to get the opportunity to get there, to show what we are capable of on their projects.... The DBE program will allow them to work with us to see, "Oh, they're just as good as so and so.".... I just don't think the door's going to open for us without that program. (CapMetro, page 136)

There is definitely a stigma to being known as a WBE (or MBE) firm. Certification definitely helps with getting public projects, but actually can be viewed as a negative in the private sector. (Austin, page 242, survey)

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)

The goals need to really stay in place because it does help get jobs. I know I had a hard time in the beginning because the fact of it was I wasn't known. (Travis County, page 184)

All my work is goal-related and people even tell me if they don't have a goal [they will not use me]. [The first tier subcontractor says], we don't have a goal anymore at the end. So, we don't need you anymore." Even though along the way they were saying, "We need you. We want to use you. We're going to do this." But then when they get to the bottom and the prime says, "Well, we satisfied our goal. Whatever entity it is, we don't really need your goal anymore so you don't have to do that." And so that's why the DBE program is very important to us, to me, person like me, because that is the market that I work in. And I find that's the only market that for me, that allows me at least a fighting chance to continue to be in business. Going out in the private market, trying to do what I do anyways, is just futile. It's not even going to work. (CapMetro, page 137)

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. (SAWS, page 171)

What we all want is a seat at the table. It doesn't matter beyond that, what color we are, what gender we are, anything like that. We want that opportunity to get the seat at the table and to be able to compete fairly. And there is an assumption when you walk in, particularly for a woman in a male dominated industry like construction, and often the vibe is that they are just there to check the box. (Central Health, page 129)

I don't want to get awarded because I'm a minority, I want to get awarded because I'm a good company, I have a good product, you know? But my experience has been that I have not

even gotten a chance to do that. Not even to do a trial or anything like so it's just frustrating. (CapMetro, page 119)

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)

I have known White females that are very capable and successful as consultants. I have met African-American women who tried to start their own company. I have never known one that's succeeded, because they just cannot get work. I have met several Hispanic and African-American people, personally, who tried and never succeeded. And there are a few of us who are trying to make it. (Central Health, page 129)

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. (SAWS, page 171)

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)

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. (SAWS, page 171)

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)

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". (SAWS, page 185)

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)

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. (SAWS, page 184)

[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)

I do not know what bids are available. Large companies working with established manufacturers will work with the same group they have for the past 100 years. (SAWS, page 184)

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, page 164)

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. (SAWS, page 184)

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)

The pre-solicitation information advantages obtained by larger firms... [who] become advisors to the client before the RFQ release. Many times, M/WBEs are not a part of that network. (SAWS, page 185)

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 private 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).

I think having the requirements at least gives us the opportunity to get our foot at the door, to show that we are a good company, but we're also a certified company., So, I think it benefits us in both ways, but we definitely have seen stigma, especially with us being woman owned minority owned traffic control company. It's pretty much a White male dominated industry.... [The DBE program] gives us a chance to prove ourselves, but again, I think if you didn't have it, we probably wouldn't have the kind of work we have. (CapMetro, page 136)

[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.

A public relations component and notification process is essential to having a successful outcome in the number of minority businesses that participate in your procurement process. (Central Health, page 130)

Better, quicker information on upcoming projects [would be helpful]. (SAWS, page 186)

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).

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. (SAWS, page 186)

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. (SAWS, page 172)

One thing that would be really helpful is to have, maybe, like "Meet the Buyer" and the true buyer ... the decision-makers that can say, "Okay, yes, I'll use you for this particular project." I think that would be very helpful because for me, I believe it's about making the relationships or developing those relationships and so if we're able to start a relationship with the actual person that we're working with rather than the middle person... [Then it's not] "Oh, we're just a minority firm so that's why we need to have this opportunity." A direct meeting would really, really help us. (Harris Health, page 119)

Contract awards, marketing support, letting agencies know who we are and what we are capable of doing for the agencies. (SAWS, page 185)

There has to be somebody from the business or the manager's information technology [unit] who have to figure out that how will they channel all their requirements to all the approved vendors. And that has been a challenge for us because we have not been able to figure out who that might be. We had reached out to the person on the RFP document in terms of from procurement, but beyond that, we just don't know where to go. (Harris Health, page 119)

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 [of Houston]. 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)

It's not going to really change. If you don't have individuals in-house that are going to advocate for it. (Central Health, page 130)

Many respondents mentioned mentor-protégé or joint venture arrangements as vehicles to support the growth of M/WBEs.

Come out with a mentoring program that's goal-oriented and visible. (PHHS, page 110)

A good mentor helps you with a lot of things that have nothing to do with that specific project but with your business. Helps you with your safety plan and quality control plans (Dallas County, page 105)

We've had a mentorship with [firm name] which has helped us immensely. Because I don't think we would have been able to walk through the doors or bid on the things that we've bid on or have the opportunity had we not had that mentorship. Because they had forged a path in places where I hadn't seen before. And I work in a very male dominated business in [specialty trade]. It's predominantly men. And there is some stigma with



that. There are competency issues when you show up at a meeting and you're a woman and you're representing the [specialty trade] company. So, I'm really thankful for the mentorship program because I think it's just something that helps open doors. (PHHS, page 110)

I'm hearing a lot of positive feedback on mentor-protégé [initiatives]. Because you write a really good mentor-protégé agreement and you have a great mentor, you can really learn a lot. (Dallas County, page 105)

