State of Washington Disparity Study 2019







STATE OF WASHINGTON DISPARITY STUDY

2019

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Colette Holt & Associates

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About the Study Team

Colette Holt & Associates ("CHA") is a national law and consulting firm specializing in disparity studies, affirmative action contracting programs, expert witness services, compliance monitoring and strategic development related to inclusion, diversity and affirmative action. Founded in 1994, it is led by Colette Holt, J.D., a nationally recognized attorney and expert. In addition to Ms. Holt, the firm consists of Steven C. Pitts, Ph. D., who serves as the team's economist and statistician; Ilene Grossman, B.S., CHA Chief Operating Officer; Glenn Sullivan, B.S., CHA Director of Technology; and Victoria Farrell, MBA, CHA Assistant Principal Researcher. CHA is certified as a Disadvantaged Business Enterprise, Minority-Owned Business Enterprise and a Woman-Owned Business Enterprise by numerous agencies.

Blackstar Services, Inc. Daucey Brewington, owner of Blackstar Services, Inc. is an enrolled member of the Lumbee Tribe of North Carolina. Founded in 1998, Blackstar works directly with Native individuals and tribally owned businesses. Mr. Brewington works with public and private organizations to create business pathways into Indian Country, particularly by leveraging federal programs that offer advantages for tribally owned concerns.

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I. EXECUTIVE SUMMARY

Colette Holt & Associates (CHA) was retained by the State of Washington ("State") to perform a study in conformance with strict constitutional scrutiny to determine its utilization of Disadvantaged, Minority- and Women-Owned Business Enterprises (collectively "MWBEs"); the availability of MWBEs in its market area; any disparities between its utilization and MWBE availability; and to evaluate whether the use of race-conscious measures is supported by the results of this analysis. We were also tasked with making recommendations for increasing the inclusion of MWBEs and small businesses. We analyzed contract data for fiscal years 2012 through 2016.

A. Summary of the Strict Constitutional Standards Applicable to Minority and Women Business Programs

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

Strict scrutiny analysis has two elements:

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

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

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

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

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

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review called "rational basis" scrutiny. Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than is required for race- or gender-based measures meant to combat historic discrimination.

To meet strict scrutiny, studies have been conducted to gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as "disparity studies" because they analyze any disparities between the opportunities and experiences of minority- and women-owned firms and their actual utilization compared to White male-owned businesses. Quality studies also examine the elements of the agency's program to determine whether it is sufficiently narrowly tailored. This Report meets these tests.

B. Study Methodology and Data

The methodology for this study embodies the constitutional principles of *City of Richmond v. Croson*, and best practices for designing race- and gender-conscious and small business contracting programs. The CHA approach has been specifically upheld by the federal courts. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies¹.

We determined the State of Washington's utilization of M/WBEs and the availability of M/WBEs in the State's geographic and industry market area. We then compared utilization to availability to calculate disparity ratios between those two measures. We further analyzed disparities in the wider economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede

^{1.} National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. https://doi.org/10.17226/14346. ("National Disparity Study Guidelines").

opportunities for minorities and women when remedial intervention is not imposed. We gathered anecdotal data on MWBEs' experiences with obtaining state contracts and associated subcontracts. We examined race- and gender-based barriers throughout the economy through public meetings, focus groups with business owners and stakeholders, an electronic survey and interviews with agency staff.

Based on the results of these extensive analyses, we make recommendations for the State's contracting policies.

C. Study Findings

1. The State of Washington's Contracting Equity Policies

a. Experiences with Obtaining State Contracting Opportunities

To explore the experiences of businesses seeking opportunities on State contracts, we solicited input from 251 individuals and stakeholder representatives about their experiences and solicited their suggestions for changes.

Obtaining work on State projects: Most M/WBEs reported it is extremely difficult to obtain work on State projects. Without M/WBE contract goals, firms receive little work. Prime contracts were especially difficult to obtain.

Certification: Certification as a M/WBE by the State was reported to confer few benefits, especially in relation to the time required to go through the process. Some M/WBEs felt that certification was actually a detriment because it can be viewed by other firms and agencies as a stigma.

Initiative 200 and Washington State Department of Transportation Waiver: Long established firms recounted the negative impact of Initiative 200 ("I-200"). Similar effects were reported by White women after the implementation of a waiver by the Washington State Department of Transportation that dropped this group for credit towards meeting contract goals in the Disadvantaged Business Enterprise program for federally-assisted transportation contracts.

Access to information and State decision makers: Many owners and stakeholder representatives stated that it is difficult to access information about State contracting opportunities. State contracting personnel were reported to prefer large firms and often rejected small firms and M/WBEs to reduce perceived risk. A common observation was that informal networks negatively impact minorities and women.

Outreach to small and certified firms: Outreach activities to connect M/ WBEs and small firms with State contracting staff and prime vendors was one method discussed to increase opportunities. One participant cautioned that these events do not necessarily lead to work, but others supported the idea.

Contracting processes and requirements: Many interviewees mentioned the size and complexity of State projects as major barriers to participation by small firms in any role. "Unbundling" contracts was one method suggested to increase opportunities for smaller firms.

Technical assistance and supportive services: Experience, surety bonding, insurance, financial status and other contractual requirements pose barriers to small firms' participation on State contracts. The State's highly decentralized and antiquated procurement systems pose additional challenges to M/WBEs and small firms. Many small firms and some large contractors suggested offering technical support to assist in doing business with the State. Several owners had positive experiences with the Procurement Technical Assistance Centers funded by the U.S. Department of Defense and other agencies, and suggested the State leverage its resources to partner with these entities.

Mentor-protégé program: A mentor-protégé program was mentioned as a possible enhancement to support small firms.

Race- and gender-conscious program: M/WBEs almost universally recommended the adoption of an enforceable race- and gender-conscious program to remedy the effects of discriminatory barriers. While M/WBEs embraced this approach, some non-M/WBEs and trade association representatives disagreed.

Race- and gender-neutral measures: The recent requirement on some contracts that bidders provide Inclusion Plans was seen as ineffective.

Small business target market: Adoption of a small business target market program, whereby small firms on a race- and gender-neutral basis would compete against each other for specified contracts, should also be considered.

b. Staff Interviews

In addition to business owner and stakeholder group representatives, we interviewed State staff with contracting and procurement responsibilities to solicit their experiences and recommendations for greater inclusion and diversity.

Finding Certified firms: Several officials described their frustration in finding qualified certified firms. Many stated that M/WBEs fail to register in Washington's Electronic Business Solution ("WEBS"), the State's on-line procurement portal.

Information for Contracting Staff: State contracting staff need more information about available firms. Outreach events for specific industries is one method to increase information available to contracting officials. There was a general consensus that more training and resources for procurement and contracting personnel are necessary to advance the goals of equity and inclusion.

Contract Lead Times: State projects often have short lead times, which makes it difficult for small firms to respond in a timely manner. Contracting forecasts would help to alleviate this problem.

Contract Size and Complexity: Contract size, complexity and timelines also create obstacles to the utilization of M/WBEs and small firms. The use of statewide "master contracts" reduces opportunities for diverse and small businesses. Many contracting staff were wary of trying to "unbundle" contracts to facilitate certified and small business participation. However, several interviewees suggested raising the limit for "direct buy" contracts (i.e., informally procured contracts) to increase opportunities for M/WBEs and small firms.

Technical assistance and supportive services: Technical assistance and supportive services were recommended by many staffers. M/WBEs need training and resources to increase their capacities for State work. Insurance and surety bonding requirements can discourage or eliminate small firms. Some contracting staffers expressed concern about showing "favoritism" or providing an unfair advantaged to MWBEs by providing information, but others pushed back.

Race- and gender-conscious program: Some participants stated that the lack of an enforceable, race- and gender-conscious program greatly reduced the incentive for minority- and woman-owned firms to become certified and participate in State programs.

Utilization Plans: One agency reported making progress using Utilization Plans, which might be more detailed.

2. Utilization, Availability and Disparity Analyses for the State

A central component of a legally defensible disparity study examines the contract data of an agency (its utilization) and compares that to the universe of firms that potentially could have received contracts (its availability). Strict con-

stitutional scrutiny requires that a state government limit its race-based remedial program to firms doing business in its product and geographic markets. Put another way, the study looked at what the State *achieved* relative to what it possibly *could have achieved*. This analysis involved several steps:

- We determined the State's "unconstrained product market". This is defined by the set of North American Industry Classification Systems ("NAICS") codes representing industries or product markets where a significant portion of the State's spending occurs (*i.e.*, what goods and services does the State purchase).
- We determined the State's "geographic market". This represents the territory that covers the area where most firms who win contracts from the State are located (i.e., the geographic area where the State spends most of its monies).
- We determined the "constrained product market". While the
 unconstrained product market has no spatial boundaries, distance is a
 determinant of what firms the State utilizes. Therefore, the next step
 constrains the unconstrained product market by the geographic
 boundaries, which results in the constrained product market.
 (Sometimes the imposition of this geographic constraint reduces the
 number of NAICS codes compared to the results in the first step).
- The contracts that remain after the determination of the unconstrained product market were then analyzed to determine the State's utilization of businesses (*i.e.*, how it spends its monies across industries and the demographic profile of the ownership of firms that receive agency funds.)
- We determined the set of firms that were availability to receive contracts from the State. This set of firms is defined by the set of NAICS codes in the constrained product market and the spatial boundaries set by the geographic market.
- The resulting availability is weighted by how the State spends its money. This means the distribution of MWBEs and non-MWBEs across industries is tempered by how the State spends its monies (i.e., without this weighting, the result might be a cluster of certain MWBEs in industries where few funds are spent and consequently, present a picture of robust MWBE opportunities while in reality those firms have limited opportunities to receive significant funds from the State).
- The ratio of the utilization of a particular demographic group over that group's weighted availability results in the disparity ratio.

Strict constitutional scrutiny requires that a state government limit its racebased remedial program to firms doing business in its product and geographic markets. Using this framework, CHA analyzed the State's contract data for fiscal years ("FFYs") 2012 through 2016. The resulting Final Contract Data File for analysis contained 3,303 State-funded contracts with a total award amount of \$3,484,653,357. Of these contracts, 613 were prime contracts and subcontractors received 2,690 contracts. Prime contractors received \$2,596,300,922; subcontractors received \$888,352,435. The Final Contract Data File were used to determine the geographic and product markets for the analyses, and to estimate the utilization and availability of minority- and women-owned firms by funding source and contract type.

The following tables present the NAICS codes, the label for each NAICS code, and the industry percentage distribution of spending across NAICS codes, by type of contract. Chapter IV provides tables disaggregated by dollars paid to prime contractors as well as dollars paid to subcontractors on contracts with subcontracting opportunities.

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

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
522110	Commercial Banking	12.62%	12.62%
236220	Commercial and Institutional Building Construction	10.79%	23.40%
623210	Residential Intellectual and Developmental Disability Facilities	10.35%	33.75%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.73%	41.48%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.09%	48.58%
624120	Services for the Elderly and Persons with Disabilities	6.01%	54.58%
441110	New Car Dealers	4.53%	59.11%
621610	Home Health Care Services	4.19%	63.30%
541310	Architectural Services	2.74%	66.03%
238910	Site Preparation Contractors	1.81%	67.85%
624210	Community Food Services	1.46%	69.31%
541330	Engineering Services	1.29%	70.59%
621420	Outpatient Mental Health and Substance Abuse Centers	1.27%	71.86%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.08%	72.94%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238350	Finish Carpentry Contractors	1.05%	73.99%
238310	Drywall and Insulation Contractors	1.03%	75.02%
TOTAL			100.0% ^a

a. An additional 249 NAICS codes contained the balance of the State's spending. The entire set of NAICS codes are presented in Appendix D.

Source: CHA analysis of State of Washington data

To determine the relevant geographic market area for each funding source, we applied the well accepted standard of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file. Location was determined by ZIP code and aggregated into counties as the geographic unit. The State of Washington captured 97.9% of the unconstrained product market dollars and, therefore, the state constituted the geographic market.

When the unconstrained product market was limited to the State of Washington, the result was the *constrained product market*. The next step was to develop the Final Utilization Data File for the constrained product market which contains the dollar value of the State's utilization of MWBEs as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

Table 1-2 presents the utilization data by all industry sectors. Chapter IV provides detailed breakdowns of these results.

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

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
236220	0.00%	0.00%	0.00%	0.00%	0.03%	0.03%	99.97%	100.00%
237310	0.00%	0.00%	5.98%	0.02%	5.33%	11.33%	88.67%	100.00%
238120	2.94%	12.10%	11.34%	6.71%	5.97%	39.05%	60.95%	100.00%
238130	0.00%	0.00%	0.65%	0.00%	0.38%	1.03%	98.97%	100.00%
238140	0.00%	0.00%	0.00%	0.00%	0.70%	0.70%	99.30%	100.00%

^{2.} National Disparity Study Guidelines, p. 49.

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
238150	0.00%	0.00%	5.12%	0.00%	1.60%	6.72%	93.28%	100.00%
238160	0.00%	0.06%	0.00%	0.01%	17.61%	17.67%	82.33%	100.00%
238210	0.00%	1.98%	0.00%	0.68%	27.44%	30.09%	69.91%	100.00%
238220	0.01%	0.00%	0.00%	12.08%	19.07%	31.16%	68.84%	100.00%
238290	0.00%	0.00%	0.00%	8.42%	0.63%	9.04%	90.96%	100.00%
238310	0.47%	0.00%	0.00%	0.62%	2.24%	3.33%	96.67%	100.00%
238320	0.20%	0.05%	6.92%	2.52%	7.88%	17.56%	82.44%	100.00%
238330	1.18%	0.12%	0.00%	0.00%	2.38%	3.68%	96.32%	100.00%
238350	0.26%	0.24%	0.00%	37.61%	0.23%	38.34%	61.66%	100.00%
238910	0.00%	3.10%	1.76%	1.01%	19.45%	25.32%	74.68%	100.00%
238990	0.00%	0.04%	0.18%	1.53%	19.73%	21.48%	78.52%	100.00%
332322	0.00%	0.00%	7.15%	0.00%	4.32%	11.47%	88.53%	100.00%
423430	0.00%	0.00%	7.89%	0.00%	0.00%	7.89%	92.11%	100.00%
441110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
517311	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
517312	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
518210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
522110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
531110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541211	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541219	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	7.16%	0.08%	0.00%	0.00%	7.23%	92.77%	100.00%
541330	0.02%	0.03%	0.51%	0.00%	2.61%	3.16%	96.84%	100.00%
541511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541611	0.00%	0.00%	0.00%	0.00%	2.88%	2.88%	97.12%	100.00%
541612	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541618	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541690	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541830	0.00%	0.00%	4.40%	0.00%	34.79%	39.19%	60.81%	100.00%
541840	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
561492	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561612	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
561613	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561622	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
562910	0.00%	0.04%	0.00%	0.37%	25.97%	26.38%	73.62%	100.00%
611430	0.00%	0.00%	0.00%	0.00%	46.85%	46.85%	53.15%	100.00%
621330	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
621340	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621420	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621610	23.23%	0.00%	0.00%	0.00%	43.25%	66.49%	33.51%	100.00%
623210	0.00%	0.00%	2.55%	0.00%	8.25%	10.80%	89.20%	100.00%
624120	0.00%	0.00%	0.00%	0.00%	23.98%	23.98%	76.02%	100.00%
624210	0.00%	0.00%	0.00%	0.00%	55.51%	55.51%	44.49%	100.00%
624310	0.00%	0.00%	0.00%	0.00%	85.32%	85.32%	14.68%	100.00%
Total	1.23%	0.58%	0.75%	1.74%	11.25%	15.54%	84.46%	100.00%

Source: CHA analysis of State of Washington data.

Using the "custom census" approach to estimating availability (described in detail in Chapter IV), and the further assignment of race and gender (using the Master Directory and other sources), we determined the aggregated availability of MWBEs when weighted by the State's spending in its geographic and industry markets, to be 15.2 %. Table 1-3 presents the weighted availability data for all product sectors combined for the racial and gender categories.

Table 1-3: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
1.7%	0.7%	2.6%	0.6%	9.6%	15.2%	84.8%	100.0%

Source: CHA analysis of State of Washington data; Hoovers; CHA Master Directory

To meet the constitutional test that all groups must have suffered discrimination in the State's markets in order to be eligible for the benefits of the program, we next calculated disparity ratios comparing the State's utilization of MWBEs as prime contractors and subcontractors measured in dollars paid to

the availability of these firms in its market areas. The disparity ratio is calculated by dividing the weighted availability into the utilization rate. If the utilization rate for a group is less than the availability for that group, we would conclude that the group is underutilized. It is important to note that sometimes unique features of the data (e.g. an unusually high concentration of a group in a very narrow range of NAICS codes; particularly strong performance of one or two firms within a group which is at odds with the performance of most firms in that group; very limited number of observations) might generate disparity ratios which require closer examination. Table 1-4 presents these results.

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 percent of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination. Second, a statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. A more in-depth discussion of statistical significance is provided in Appendix C.

Substantive and Statistical Significance

- the disparity ratio less or equal to 80% represent disparities that substantively significant. (See Footnote 4 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)

^{3.} 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.").

^{4.} 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. A t-test was performed on the regression coefficients to examine the probability the coefficients were not equal to zero.

Table 1-4: Disparity Ratios by Demographic Group, All Industries Combined

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	70.4% [‡]	86.8%	29.3% [‡]	294.5%	116.8%	102.4%	99.6%

Source: CHA analysis of State of Washington data. ‡ Indicates substantive significance

The disparity ratio for Native Americans seemed counter-intuitive so we re-examined the final contract data file. We found a high level of concentration of Native American-owned firms in a single NAICS code (NAICS code 238220: Plumbing, Heating, and Air-Conditioning Contractors).

- 63% of all contract dollars going to Native American firms were in this NAICS code; overall State spending in this NAICS code was 9%. If parity existed, 9% of Native American contract dollars would have been in this NAICS code.
- Native American firms received 12% of all contract dollars in this NAICS code; however, Native American received just 1.74% of all State spending.

In addition, we found one firm received 50% (16 of 32) of all contracts going to Native Americans and 68% of all contract dollars received by Native American firms.

In order to understand what happened to the Native American disparity ratio outside of this concentration, we re-ran the analysis without NAICS code 238220. Table 1-5 presents these results.

Table 1-5: Disparity Ratios by Demographic Group, (without NAICS code 238220)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	103.5%	79.1% [‡]	48.0% [‡]	126.9%	120.2%	106.9%	99.1%***

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

The disparity ratio for Native American firms fell dramatically from 294.5% to 126.9%. We note that Native-American-owned firms might actually be tribally owned and therefore not subject to the same stringent personal net worth and size requirements of firms owned by other racial and ethnic minorities and White women. We postulate that the high utilization of Native American firms, which includes firms owned by Alaska Natives, may result from the dif-

ferent certification standards for tribally-owned firms. Tribes are eligible for special programs that may increase the ability of tribally-owned firms to perform on State contracts.⁵ We therefore do not take from these results that Native-American-owned firms are enjoying unfair access to State opportunities.

The State requested that we examine evidence of disparities without contracts for Client Services because these contracts are subject to different State procurement rules and serve a constituent market, rather than the more traditional markets for goods and services provided to the State. Client services are exempt from competitive solicitation pursuant to RCW 39.26.125 and are defined in RCW 39.26.010 (6) as "services provided directly to agency clients including, but not limited to, medical and dental services, employment and training programs, residential care, and subsidized housing." These contracts are also exempt from Initiative 200.

Table 1-6 presents the disparity ratio once the NAICS codes that comprise Client Services were dropped from the analysis.

Table 1-6: Disparity Ratios by Demographic Group (without Client Services)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	2.5% [‡]	110.1%	29.9% [‡]	310.3%	79.8% [‡]	71.3% ^{‡*}	105.3%***

Source: CHA analysis of State of Washington data
*** Indicates statistical significance at the 0.001 level

The disparity ratio for Hispanic firms deviated from what we have seen in dozens of other studies across the country so we further examined the Final Contract Data File. Our hypothesis was that Hispanic firms might be concentrated in a NAICS code where the Hispanic share of contract dollars exceeded the State's spending in that code and the State's share was relatively high. This hypothesis was correct. NAICS code 238210–Electrical Contractors and Other Wiring Installation Contractors—contained 8.3 percent of all State spending, but 28.6 percent of all Hispanic contract dollars. We re-ran this analysis — this time dropping NAICS code 238210 from the data. Table 1-7 provides the results without NAICS code 238210.

^{*} Indicates statistical significance at the 0.05 level

[‡] Indicates substantive significance

^{5.} See 49 C.F.R. § 26.5 and §26.783(h) and (i).

Table 1-7: Disparity Ratios by Demographic Group (without Client Services and NAICS code 238210)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	2.52% [‡]	85.87%	30.37% [‡]	322.35%	53.05% [‡]	54.43% ^{‡***}	109.02%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

3. Analysis of Economy-Wide Race and Gender Disparities in the State's Market

In addition to the analysis of the State's contracting activities, we explored the Census Bureau data and literature relevant to how discrimination in the State's industry market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the State's prime contract and subcontract opportunities. These analyses shed light on the ability of M/WBEs to achieve parity in the wider economy, where remedial interventions are rarely implemented.

To undertake these explorations, we analyzed the following data and literature:

- Data from the Census Bureau's Survey of Business Owners indicate very large disparities between MWBE firms and non-MWBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms.
- Data from the Census Bureau's American Community Survey ("ACS") indicate that in most cases, Blacks, Hispanics, Native Americans, Asian/Pacific Islanders, Others, and White women were underutilized relative to White men. Controlling for other factors relevant to business outcomes, wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men.
- The literature on barriers to accessing commercial credit and/or the development of human capital further reports that minorities continue to face constraints on their entrepreneurial success based on race. These constraints negatively impact the ability of firms to form, to grow, and to succeed.

All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in overall marketplace discrimination without some type of affirmative intervention. Taken together with anecdotal data, this is the type of proof that addresses whether, in the absence of MWBE contract goals, the State will be a passive participant in the discriminatory systems found throughout its industry market. These economy-wide analyses are relevant and probative as to whether the State may employ narrowly tailored race- and gender-conscious measures that ensure equal opportunities in accessing its contracts and associated subcontracts.

4. Qualitative Evidence of Race and Gender Barriers in the State of Washington's Market

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

To explore this type of anecdotal evidence, we received input from 251 participants. Many minority and women owners reported that they continue to encounter discriminatory attitudes, stereotypes and negative perceptions of their qualifications, professionalism or capabilities. While sometimes subtle, these biases about minorities' and women's lack of competence infect all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. Minorities and women repeatedly discussed their struggles with negative perceptions and attitudes of their capabilities in the business world.

Summary of issues discussed:

- Some minorities believed that racism is more subtle in the Northwest than in other parts of the country.
- Women often found their business opportunities limited by sexism.
- Blacks reported some instances of worksite harassment and bullying.
- Women experienced sexual harassment and hostile work environments.
- A common strategy of women owners was to send men to meetings to mitigate sexist perceptions and resistance.
- It can cost more money to operate a woman-owned firm with women employees.

- Some women felt that the barriers were size and experience rather than gender. Others disagreed and felt it was gender and color issues first, and then size.
- A White male representative of a trade association rejected the notion that race and gender continue to play a role in the construction industry.

In addition to exploring the role that race or sex may play in impeding business opportunities, the State asked us to examine whether firms owned by military veterans face similar discriminatory barriers.

- None reported barriers on the basis of having served in the military.
 White-male owned participants sought the preference for Veteran-Owned Business Enterprises ("VBEs") to boost their business prospects.
- A general contractor reported good experiences working with VBEs.
- Like some M/WBEs, a VBE reported that certification was a negative.

We also conducted electronic surveys of Stakeholder groups and firms in the State's market area about their experiences in obtaining work, marketplace conditions and the State's contracting policies. The results mirror those of the interviews. In the business-owner survey, almost half (45.5 percent) of M/WBEs reported that they still experience barriers to equal contracting opportunities; a third (33.1 percent) reported having their competency questioned based on their race or gender; and a quarter (24.2 percent) reported experiencing job-related sexual harassment or stereotyping. A fifth (18 percent) also reported experiencing discrimination from suppliers or subcontractors because of their race or gender. Comments collected by the surveys also support these findings.

Consistent with other evidence reported in this Study, the anecdotal interviews and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in the State of Washington's market area. While not definitive proof that the State should consider race- and gender-conscious remedies for these impediments consistent with State law, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with the numerous pieces of statistical evidence assembled, the courts have found to be highly probative of whether the State would be a passive participant in a discriminatory market area without affirmative interventions and whether race-conscious remedies are necessary to address that discrimination.

D. Recommendations

The quantitative and qualitative data in this Study provide a thorough examination of the evidence of the experiences of M/WBEs in the State's geographic and product markets. As required by strict constitutional scrutiny, we analyzed evidence of M/WBEs' utilization by the State as measured by dollars spent. We next estimated the availability of M/WBEs in the State's markets in the aggregate and by detailed industry code. We then compared the State's utilization of M/WBEs to the availability of all ready, willing and able firms in its markets to calculate whether there are disparities between utilization and availability. We also solicited anecdotal (qualitative) evidence from M/WBEs' and veteran-owned business enterprises ("VBEs") experiences in obtaining contracts in the public and private sectors.

These findings support the conclusion that minorities and White women do not enjoy equal access to all aspects of State contracting opportunities. While some firms owned by ethnic and racial minorities and White women have successfully obtained State work, barriers remain for most M/WBEs to fair and open markets. Most have not been able to overcome the "market failure" of discrimination. This is manifested both in fewer opportunities for firms that do form, ⁶ lower earnings for those firms, and the depression of the formation of M/WBEs in the first place⁷. Moreover, minority and women entrepreneurs extensively recounted their experiences with discrimination and a contracting playing field greatly tilted towards incumbents, long established firms and businesses that enjoy the benefits of discriminatory networks and contracting requirements. 8 The lack of remedial market intervention in the wake of Initiative 200 perpetuated these results. That a few firms have overcome systemic barriers to achieve State contracts does not mean that the playing field is level for all firms. In our judgment, some remedial action is warranted and necessary to ensure non-discrimination in State contracting activities.

Based upon these findings and national best practices for contracting equity programs, we make the following recommendations.

Implement an electronic data collection and monitoring system: Perhaps the most critical recommendation is to fully implement an electronic data collection and monitoring system for all State agencies. The ability to track M/WBE participation at the highly detailed level of 6-digit NAICS codes for prime vendors and all subcontractors (not just certified firms) is the foundation for any efforts to increase opportunities. While some departments (WSDOT and DES, for example) have begun this process, others have not. This first step must occur to enable other

^{6.} See Chapter IV.

^{7.} See Chapter V.

^{8.} See Chapter VI.

program elements to be targeted to actual needs and barriers. Failure to do so will undermine all other remedial program initiatives.

Examine current policies and provide best practices: Many participants in the business owner interviews had difficulty accessing information about opportunities on State contracts. The Department of Enterprise Services ("DES") should examine each contract awarding authority's current policies and provide best practices regarding vendor outreach and management, and user-friendly access for potential bidders and proposers.

Conduct pre-bid conferences: State agencies should conduct pre-bid conferences for larger contracts, especially master contracts. Pre-bid conferences will help small firms to team with larger businesses or even submit bids or proposals as the prime vendor. Public postings should be done in a timely fashion and include the attendees and the answers to frequently asked questions.

Post winning bidders/proposers to WEBS: We suggest that winning bidders/proposers and their subcontracting plans, along with other pertinent information, be posted in WEBS, the State's online contracting portal. This will allow interested parties to track the progress of a particular solicitation, as well as obtain information that will assist them to become more competitive in the future.

Conduct additional outreach efforts: The State should consider additional outreach efforts to open up State opportunities. These include; seminars on how to do business with the State; networking events with agency personnel responsible for contracting decisions as well as with prime vendors to increase familiarity and comfort levels between the parties; speed "dating" between M/WBEs and larger prime contractors; informational seminars where firms in specific industries can learn about State projects and make connections; require registration on WEBS as part of the M/WBE certification process; require prime bidders to register their interest in a specific solicitation to be considered responsive in order to assist M/WBEs in acquiring contact information for possible subcontracting or partnering arrangements.

Conduct additional outreach to uncertified minority- and women-owned firms: OMWBE should conduct additional outreach to uncertified minority- and womenowned firms. OMWBE should aggressively pursue these businesses to encourage applications. The Department of Veterans Affairs ("DVA") should do the same for veterans. These efforts will help to increase the pool of qualified firms.

Conduct special outreach to firms in industry codes receiving few opportunities: We suggest that special outreach be conducted to firms in sectors with low participation to make them aware of the opportunities and connect them with agency staff and other vendors as subcontractors or joint venture partners.

Focus outreach on agencies with low M/WBE utilization: Agencies with especially low M/WBE utilization should work with OMWBE to perform outreach to ensure minority- and women-owned firms have access to contracts. Agency staff will be the subject matter experts on the needs of their entity and what types of firms are needed for future opportunities. This will also help to overcome any inherent staff resistance to M/WBEs or small firms and increase the competitive pool for agency contracts.

Increase Technical Assistance to M/WBEs and small firms: We suggest the State go beyond its current efforts, providing basic information and links to other resources, and provide direct training to certified firms through experienced business consultants. The successful programs that the Washington State Department of Transportation ("WSDOT") currently provide, should serve as the model. The State should also consider partnering with the Procurement Technical Assistance Agencies ("PTACs") in Washington State to leverage the PTACs' deep knowledge and experience in assisting small firms. Other agencies may also be able to serve as resources supported by State assistance.

Lengthen solicitation times: We recommend lengthening the time that bidders have to prepare solicitations. This will be especially important on larger or more complex projects in order to increase M/WBE participation.

Review contract sizes and scopes: Unbundle contracts into smaller segments based on dollars, scopes or locations to provide fair access to State projects. Smaller contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors. It may also enhance their subcontracting opportunities. State contracting personnel need training in splitting contracts into smaller segments without impugning the integrity of the contracting process.

Raise the direct buy limits: The \$10,000/\$13,000 limit for "direct buy" (informally procured) contracts is too low. Informal procurement is an excellent method to provide opportunities for M/WBEs and small firms to obtain State work that is low risk for both parties. Smaller contracts can lead to larger projects based on increasing the vendor's experience with State processes and requirements.

Adopt "quick pay" policies: Agencies should pay prime firms more frequently on appropriate contracts— perhaps every two weeks— to assist small prime contractors and subcontractors to be more successful. Many firms stated that cash flow needs, impede their ability to perform as prime firms or even as subcontractors. As a pilot effort, the State could implement quick pay to subcontractors as part of the SBE target market program, discussed in the SBE target market recommendation.

Review insurance, surety bonding and experiences requirements: The State should review its requirements so that they are no greater than necessary to protect its interests. The State's insurance and qualifications requirements were major

impediments to M/WBEs performing as prime contractors, and even as subcontractors from the imposition of "flow down" contractual provisions. For example, equivalent experience— especially that gained by working for other government agencies—should be permitted to increase access for small firms and guard against unfair incumbent advantages.

Train department and agency staff on increasing diversity in contracting: The State should provide information on how to conduct outreach in addition to the efforts of OMWBE. Further, training on unconscious bias should be mandated for all personnel with contracting and procurement responsibilities so that everyone understands where unintended barriers may be erected and how to reduce biases that negatively impact M/WBEs. While State staff interviewed were willing, or even enthusiastic, about increasing inclusion, they often lacked the knowledge and tools to do so.

Develop a pilot small business enterprise bonding and financing program: The State should develop an agency-sponsored bonding and financing assistance program for SBEs. This will require an additional certification process for OMWBE (although certified M/W/BEs and VBEs could automatically be eligible). This program goes beyond OMWBE's current provision of information about outside bonding and financing resources to providing actual assistance to firms through a program consultant. It is not, however, a bonding guarantee program that places the State's credit at risk or provides direct subsidies to participants. Rather, this concept brings the commitment of a surety to provide a bond for firms that have successfully completed the training and mentoring program. Other agencies have reported significant increases in certified firms' bonding capacities and ability to take on larger projects. Such an approach could be tried on a pilot basis on DES contracts, starting with smaller construction firms and smaller projects. If successful, it could then be expanded to awarding agencies.

Develop a race- and gender-neutral SBE target market: If permitted under State law, this program would set aside some smaller or less complex contracts for bidding only by SBEs as prime contractors. The State would have to determine the size limits for contracts and the types of contracts to be included. For example, maintenance contracts and small consulting contracts might be successfully procured using this method. This approach would be in addition to, not a substitute, for direct buy purchases. On call contracts were pointed to as an excellent vehicle for this target market approach. If implemented on a fully race- and gender-neutral basis, this is a constitutionally acceptable method to increase opportunities for all small firms. An SBE element could also include additional assistance for the vendors, such as quick pay (e.g., invoicing every two weeks); reduced experience requirements; no holding of retainage, etc.

Adopt a pilot Mentor-Protégé Program for SBEs: The State should create a pilot mentor-protégé program. We suggest starting with construction firms, as that is

the industry in which these programs have been mostly implemented and for which there are successful examples. Skill sets such as estimating, understanding of and adherence to specifications, billing and scheduling, accounting, safety, marketing, and meeting prequalification standards are possible areas of focus. Elements reflecting best practices for this program should be followed and can be found in Chapter VII Recommendations.

Develop quantitative performance measures: The State should develop quantitative performance measures for certified firms and the overall success of its race-and gender-neutral approaches to evaluate their effectiveness in reducing the systemic barriers identified by the Study. The availability estimates in the Study can serve as aspirational targets for overall State contracting. Additional benchmarks might be: Increased bidding by certified firms; increased prime contract awards to certified firms; increased diversity of the types of industries in which M/WBEs receive dollars (i.e., reduced market segregation); increased utilization by individual contract awarding authorities; increased "capacity" of certified firms as measured by bonding limits, size of jobs, profitability, etc.; utilization of M/WBEs (to be determined by a future disparity study update).

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II. LEGAL STANDARDS FOR STATE CONTRACTING AFFIRMATIVE ACTION PROGRAMS

A. Summary of Constitutional Standards

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

- The government must establish its "compelling interest" in remedying race discrimination by current "strong evidence" of the persistence of discrimination. Such evidence may consist of the entity's "passive participation" in a system of racial exclusion.
- Any remedies adopted must be "narrowly tailored" to that discrimination, that is, the program must be directed at the types and depth of discrimination identified.⁹

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

- Statistical evidence of the underutilization of minority firms by the agency and/or throughout the agency's geographic and industry market area compared to their availability in the market area. These are as disparity indices, comparable to the type of "disparate impact" analysis used in employment discrimination cases.
- Anecdotal evidence of race-based barriers to the full and fair participation of minority firms in the market area and in seeking contracts with the agency, comparable to the "disparate treatment" analysis used in employment discrimination cases.¹⁰ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, etc.

The narrow tailoring requirement has been met through the satisfaction of five factors to ensure that the remedy "fits" the evidence:

The necessity of relief;

^{9.} City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

^{10.} *Id.* at 509.

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

In general, courts have subjected preferences for Women-Owned Business Enterprises ("WBEs") to "intermediate scrutiny". Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related" to the objective. ¹¹ However, appellate courts, including the Ninth Circuit Court of Appeals ¹², have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program. ¹³ Therefore, in our view, it is prudent to evaluate gender-based remedies under the strict scrutiny standard.

Classifications not based on race, ethnicity, religion, national origin or gender are subject to the lesser standard of review of "rational basis" scrutiny, because the courts have held there are no equal protection implications under the Fourteenth Amendment for groups not subject to systemic discrimination. ¹⁴ In contrast to strict scrutiny of government action directed towards persons of "suspect classifications" such as racial and ethnic minorities, rational basis means the governmental action must only be "rationally related" to a "legitimate" government interest. Thus, preferences for persons with disabilities, veterans, etc. may be enacted with less evidence than race- or gender-based measures to combat historic discrimination.

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

^{11.} *Cf. United States v. Virginia*, 518 U.S. 515 (1996).

^{12.} Western States Paving Co., Inc. v. Washington State Department of Transportation, 2013 WL 1607239 at *13, fn. 6 (9th Cir. 2013).

^{13.} Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715, 720 (7th Cir. 2007) ("Northern Contracting III").

^{14.} United States v. Carolene Products Co., 304 U.S. 144 (1938).

compelling interest in remedying discrimination and developing narrowly tailored initiatives.

We express no opinion about whether such a program is permissible under Initiative 200.

B. City of Richmond v. J.A. Croson Co.

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

The Court struck down the City of Richmond's Minority Business Enterprise Plan that required prime contractors awarded City construction contracts to subcontract at least 30 percent of the project to Minority-Owned Business Enterprises ("MBEs"). A business located anywhere in the country which was at least 51 percent owned and controlled by "Black, Spanish-speaking, Oriental, Indian, Eskimo, or Aleut" citizens was eligible to participate. The Plan was adopted after a public hearing at which no direct evidence was presented that the City had discriminated on the basis of race in awarding contracts or that its prime contractors had discriminated against minority subcontractors. The only evidence before the City Council was: (a) Richmond's population was 50 percent Black, yet less than one percent of its prime construction contracts had been awarded to minority businesses; (b) local contractors' associations were virtually all White; (c) the City Attorney's opinion that the Plan was constitutional; and (d) general statements describing widespread racial discrimination in the local, Virginia, and national construction industries.

In affirming the Court of Appeals' determination that the Plan was unconstitutional, the opinion rejected the extreme positions that local governments either have *carte blanche* to enact race-based legislation or must prove their own illegal conduct:

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity

required by the Fourteenth Amendment... [I]f the City could show that it had essentially become a "passive participant" in a system of racial exclusion...[it] could take affirmative steps to dismantle such a system. ¹⁵

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

Having found that Richmond had not presented evidence in support of its compelling interest in remedying discrimination—the first prong of strict scrutiny—the Court went on to make two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination. Further, Justice O'Connor rejected the argument that individualized consideration of Plan eligibility is too administratively burdensome.

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

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that nonminority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion....Moreover, evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified. 17

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^{15. 488} U.S. at 491-92.

^{16.} See Grutter v. Bollinger, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

^{17. 488} U.S. at 509 (citations omitted).

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

C. Establishing a "Strong Basis in Evidence" for a Minority- and Women-Owned Business Enterprise Program for the State of Washington

It is well established that disparities in a State's utilization of Minority- and Women-Owned Business Enterprises ("M/WBEs") and their availability in the relevant marketplace provide a sufficient basis for the consideration of race- or gender-conscious remedies. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to their success will meet strict scrutiny. Discrimination must be shown using statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems. ¹⁸ Specific evidence of discrimination or its absence may be direct or circumstantial, and should include economic factors and opportunities in the private sector affecting the success of M/WBEs. ¹⁹

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

1. Define the State of Washington's Market Area

The first step is to determine the market areas in which the State of Washington operates. *Croson* states that a State or local government may only remedy discrimination within its own contracting market area. The City of Richmond was specifically faulted for including minority contractors from across the country in its program, based on national data considered by Congress. ²⁰ The State must therefore empirically establish the geographic and product dimensions of its contracting and procurement market area to ensure that the program meets strict scrutiny. This is a fact driven inquiry; it may or may not be the case that the market area is the government's jurisdictional boundaries. ²¹

^{18.} Adarand Constructors, Inc. v. Slater, 228 F.3d at 1166 (10th Cir. 2000), cert. granted, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001) ("Adarand VII") ("statistical and anecdotal evidence are appropriate").

^{19.} Id

^{20.} Croson, 488 U.S. at 508.

A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75 percent of the State's contract and subcontract dollar payments. Likewise, the accepted approach is to analyze those detailed industries that make up at least 75 percent of the prime contract and subcontract payments for the Study period. ²³

2. Examine Disparities Between M/WBE Availability and the State's Utilization of M/WBEs

Next, the study must estimate the availability of minorities and women to participate in the State's contracts and its history of utilizing M/WBEs as prime contractors and associated subcontractors. The primary inquiry is whether there are statistically significant disparities between the availability of M/WBEs and the utilization of such firms.

Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise... In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.²⁴

This is known as the "disparity ratio" or "disparity index". A disparity ratio measures the participation of a group in the government's contracting opportunities by dividing that group's utilization by the availability of that group, and then multiplying that result by 100 percent. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied. ²⁵ An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission's "80 percent" rule that a ratio less than 80 percent presents a *prima facie* case of discrimination. ²⁶

^{21.} Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d at 1520 (10th Cir. 1994) ("Concrete Works II") (to confine data to strict geographic boundaries would ignore "economic reality").

^{22.} National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. https://doi.org/10.17226/14346. ("National Disparity Study Guidelines").

^{23.} *Id.* at pp. 50-51.

^{24.} Croson, 488 U.S. at 509; see Webster v. Fulton County, Georgia, 51 F.Supp.2d at 1363, 1375 (N.D. Ga. 1999).

^{25.} W.H. Scott Construction Co., Inc. v. City of Jackson, Mississippi, 199 F.3d at 218; see also Concrete Works II, 36 F.3d at 1526-1527; O'Donnell Construction Co., Inc, v. State of Columbia, 963 F.2d 420, 426 (D.C. Cir. 1992); Cone Corp. v. Hillsborough County, 908 F.2d 908, 916 (11th Cir. 1990), cert. denied, 498 U.S. 983 (1990).

To determine disparity ratios once utilization has been established, the next step is to calculate the availability of minority- and women-owned firms in the government's market area. Based on the product and geographic utilization data, the study should calculate weighted M/WBE availability estimates of ready, willing and able firms in the City's market. This is generally the "Custom Census" methodology recommended in the National Study Guidelines and repeatedly approved by the courts. This methodology includes both certified firms and non-certified firms owned by minorities or women.

The Custom Census involves the following steps: 1. Develop directories of M/WBEs. 2. Define a subset of business data to establish the availability of all firms. 3. Merge the directory with the contract data file created during the utilization analysis. 4. Assign race, gender and 6-digit North American Industry Classification System codes.²⁷ This analysis results in an overall availability estimate of the number of ready, willing and able M/WBEs that is a narrowly tailored, dollar-weighted average of all the underlying industry availability numbers, with larger weights applied to industries with relatively more spending and lower weights applied to industries with relatively less spending. The availability figures should be also sub-divided by race, ethnicity, and gender.

This approach has several benefits. As held by the federal court of appeals in finding the Illinois Department of Transportation's program to be constitutional, the "remedial nature of [DBE programs] militates in favor of a method of D/M/W/SBE availability calculation that casts a broader net" than merely using bidders lists or other agency or government directories. A broad methodology is also recommended by USDOT for the federal DBE program, which has been upheld by every court.²⁸

Other methodologies relying only on vendor or bidder lists may overstate or understate availability as a proportion of the State's actual markets because they reflect only the results of the agency's own activities, not an accurate portrayal of marketplace behavior. Other methods of whittling down availability by using assumptions based on surveys with limited response rates or guesses about firms' capacities easily lead to findings that women and minority businesses no longer face discrimination (e.g., the Oregon Department of Transportation's study and the Washington State Department of Transportation's

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^{26. 29} C.F.R. § 1607.4(D) ("A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact."); see Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F3d at 914 (11th Cir. 1997) ("Engineering Contractors II"). This rule is discussed in detail in Chapter IV.

^{27.} See National Disparity Study Guidelines, Chapter III, pp. 33-34.

^{28.} See Tips for Goal Setting in the Disadvantaged Business Enterprise (DBE) Program, http://osdbuweb.dot.gov/business/dbe/tips.cfm.

2012 study) or are unavailable, even when the firm is actually working on agency contracts (e.g., the study for the City of Portland, Oregon).

The definition of "capacity" has varied based upon the plaintiff's particular point of view, but it has generally meant bonding limits, firm size, firm revenues, and prior experience on agency projects (no argument has been made outside of the construction industry). As recognized by the courts and the National Model Disparity Study Guidelines, size and experience are not raceand gender-neutral variables. Discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors. It is these types of "capacity" variables where barriers to full and fair opportunities to compete will be manifested. Factors such as size and experience are also not race- and gender-neutral variables: "M/WBE construction firms are generally smaller and less experienced because of discrimination."²⁹ Capacity limitations on availability would import the current effects of past discrimination into the model, because if M/WBEs are newer or smaller because of discrimination, then controlling for those variables will mask the phenomenon of discrimination that is being studied. In short, identifiable indicators of capacity are themselves impacted and reflect discrimination.

Capacity variables should be examined at the economy-wide level of business formation and earnings, discussed below, not at the first stage of the analysis, to reduce the downward bias that discrimination imposes on M/WBEs' availability and the upward bias enjoyed by non-M/WBEs.

Given that Washington State has not imposed contract goals since the adoption of I-200, the results of this study present direct and probative evidence of whether there is a need for any affirmative intervention in the State's market areas.

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

Analysis of disparities in the rates at which M/WBEs in the government's markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination whether the market functions properly for all firms regardless of the race or gender of their ownership.

Business discrimination studies and lending formation studies are relevant and probative because they show a strong link between the disbursement of public

^{29.} Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d at 983 (10th Cir. 2003) ("Concrete Works IV"), cert. denied, 540 U.S. 1027 (2003) (emphasis in the original).

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

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

A study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because it is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life." ³¹ Testimony about discrimination practiced by prime contractors, bonding companies, suppliers, and lenders has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects. 32 While anecdotal evidence is insufficient standing alone, "[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative."33 "[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough."34

^{30.} Id

^{31.} International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

^{32.} Adarand VII, 228 F.3d at 1168-1172.

^{33.} Concrete Works II, 36 F.3d at 1520, 1530.

^{34.} Engineering Contractors II, 122 F.3d at 926.

D. Narrowly Tailoring a Minority-Owned and Women-Owned Business Enterprise Procurement Program for the State of Washington

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

- The efficacy of race-neutral remedies at overcoming identified discrimination:
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;
- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and
- The duration of the program.³⁸

1. Apply Race- and Gender-Neutral Remedies to the Maximum Feasible Extent

Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by the State without resorting to the use of race or gender in its decision-making. Effective remedies include unbundling of contracts into smaller units, providing techni-

^{35.} We express no view about whether such a program is permitted under I-200.

^{36. 49} C.F.R. Part 26.

^{37.} See, e.g., Midwest Fence Corp. v. US Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority, 840 F.3d at 953 (7th Cir. 2016) ("Midwest Fence II") (upholding the Illinois Tollway's program for state-funded contracts modelled after Part 26 and based on CHA's expert testimony).

^{38.} United States v. Paradise, 480 U.S. 149, 171 (1987); see also Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d at 971-972 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

cal support, and developing programs to address issues of financing, bonding, and insurance, important to all small and emerging businesses. ³⁹ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.40

The requirement that the recipient must meet the maximum feasible portion of the goal through race-neutral measures, as well as estimate that portion of the goal it predicts will be met through such measures, has been central to the holdings that the DBE regulations meet narrow tailoring. 41

While an entity must give good faith consideration to race-neutral alternatives, "strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement."42

2. **Set Targeted Goals**

Numerical goals or benchmarks for M/WBE participation must be substantially related to their availability in the relevant market. 43 For example, the DBE regulations require that the overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient's federally assisted contracts. 44 "Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in Croson." 45

Goals can be set at various levels of particularity and participation. The State may set an overall, aspirational goal for its annual, aggregate spending. Annual goals can be further disaggregated by race and gender.

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets; goals must be contract specific. Contract goals must be based upon availability of M/

^{39.} See 49 CFR § 26.51.0.

Croson, 488 U.S. at 503 n.3; Webster, 51 F.Supp.2d at 1380. 40.

^{41.} See, e.g., Sherbrooke, 345 F.3d. at 973

^{42.} Coral Construction Co. v. King County, 941 F.2d at 923 (9th Cir. 1991).

Webster, 51 F.Supp.2d at 1379, 1381 (statistically insignificant disparities are insufficient to support an unexplained goal of 35 percent M/WBE participation in County contracts); see also Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore, et al., 83 F.Supp.2d 613, 621 (D. Md. 2000) ("Baltimore I").

⁴⁹ C.F.R. § 26.45. 44.

^{45.} Id.

WBEs to perform the anticipated scopes of the contract. Not only is this legally mandated, ⁴⁶ but this approach also reduces the need to conduct good faith efforts reviews as well as the temptation to create "front" companies and sham participation to meet unreasonable contract goals. While this is more labor intensive than defaulting to the annual, overall goals, there is no option to avoid meeting narrow tailoring because to do so would be more burdensome.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.⁴⁷ Further, firms that meet the goals cannot be favored over those who made good faith efforts. In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.⁴⁸ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.⁴⁹

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

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

The groups to include must be based upon the evidence.⁵⁰ Therefore, remedies should be limited to those firms that have suffered actual harm in the market area.⁵¹

Next, the DBE Program's rebuttable presumptions of social and economic disadvantage, including the requirement that the disadvantaged owner's personal net worth not exceed a certain ceiling and that the firm must meet the Small Business Administration's size definitions for its industry, have been cen-

^{46.} See Sherbrooke, 345 F.3d at 972; Coral Construction, 941 F.2d at 924.

^{47.} See 49 C.F.R 26.43 (quotas are not permitted and setaside contracts may be used only in limited and extreme circumstances "when no other method could be reasonably expected to redress egregious instances of discrimination").

^{48. 488} U.S. at 508; see also VII, 228 F.3d at 1181.

^{49.} See, e.g., Sherbrooke, 345 F.3d. at 972.

^{50.} Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 6 F.3d 990, 1007-1008 (3rd Cir. 1993) ("Philadelphia II") (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Pacific Islanders or Native Americans).

^{51.} *H. B. Rowe Co. v. Tippett*, 615 F.3d 233, 254 (4th Cir. 2010) ("[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina's statute differs from measures that have failed narrow tailoring for overinclusiveness.").

tral to the courts' holdings that it is narrowly tailored.⁵² Further, anyone can challenge the disadvantaged status of any firm.⁵³

Finally, the policy question of the level of specificity at which to define beneficiaries must be addressed. Approaches range from a single M/WBE goal that includes all racial and ethnic minorities and non-minority women, ⁵⁴ to separate goals for each minority group and White women. ⁵⁵

5. Evaluate the Burden on Third Parties

Failure to make "neutral" changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs. ⁵⁶ However, "innocent" parties can be made to share some of the burden of the remedy for eradicating racial discrimination. ⁵⁷ The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. The proper focus is whether the burden on third parties is "too intrusive" or "unacceptable".

Burdens cannot constitute mere speculation by a plaintiff.⁵⁸ "Implementation of the race-conscious contracting goals for which TEA-21 provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although this places a very real burden on non-DBE firms, this fact alone does not invalidate TEA-21. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities."⁵⁹

Narrow tailoring does permit certified firms acting as prime contractors to count their self-performance towards meeting contract goals, if the study finds

^{52.} Sherbrooke, 345 F.3d at 973; see also Grutter, 539 U.S. at 341; Adarand VII, 228 F.3d at 1183-1184 (personal net worth limit is element of narrow tailoring); cf. Associated General Contractors v. City of New Haven, 791 F.Supp. 941, 948 (D. Conn. 1992), vacated on other grounds, 41 F.3d 62 (2nd Cir. 1992) (definition of "disadvantage" was vague and unrelated to goal).

^{53. 49} C.F.R. §26.87.

^{54.} See 49 C.F.R. §26.45(h) (overall goal must not be subdivided into group-specific goals).

^{55.} See Engineering Contractors II, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

^{56.} See Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County, 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) ("Engineering Contractors I") (County chose not to change its procurement system).

^{57.} Concrete Works IV, 321 F.3d at 973; Wygant v. Jackson Board of Education, 476 U.S. at 280-281 (1986); Adarand VII, 228 F.3 at 1183 ("While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as Adarand will be deprived of business opportunities"); cf. Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868 (Sept. 8, 2005) ("Northern Contracting II") at *5 ("Plaintiff has presented little evidence that is [sic] has suffered anything more than minimal revenue losses due to the program.").

^{58.} Rowe, 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).

^{59.} *Western States*, 407 F.3d at 995.

discriminatory barriers to prime contract opportunities and there is no requirement that a program be limited only to the subcontracting portions of contracts. The DBE program regulations provide this remedy for discrimination against DBEs seeking prime work, ⁶⁰ and the regulations do not limit the application of the program to only subcontracts. ⁶¹ The trial court, in upholding the Illinois DOT's DBE program, explicitly recognized that barriers to subcontracting opportunities affect the ability of DBEs also to compete for prime work on a fair basis.

This requirement that goals be applied to the value of the entire contract, not merely the subcontracted portion(s), is not altered by the fact that prime contracts are, by law, awarded to the lowest bidder. While it is true that prime contracts are awarded in a race- and gender-neutral manner, the Regulations nevertheless mandate application of goals based on the value of the entire contract. Strong policy reasons support this approach. Although laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination at the level of prime contracts, the indirect effects of discrimination may linger. The ability of DBEs to compete successfully for prime contracts may be indirectly affected by discrimination in the subcontracting market, or in the bonding and financing markets. Such discrimination is particularly burdensome in the construction industry, a highly competitive industry with tight profit margins, considerable hazards, and strict bonding and insurance requirements.⁶²

6. Examine the Duration and Review of the Program

Race-based programs must have duration limits. A race-based remedy must "not last longer than the discriminatory effects it is designed to eliminate." The unlimited duration and lack of review were factors in the court's holding that the City of Chicago's M/WBE Program was no longer narrowly tailored; Chicago's program was based on 14-year-old information, which while it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City's efforts in 1994. How old is too old is not definitively

^{60. 49} C.F.R. § 26.53(g) ("In determining whether a DBE bidder/offeror for a prime contract has met the contractor goal, count the work the DBE has committed to perform with its own forces as well as the work that it has committed to be performed by DBE subcontractors and suppliers.").

^{61. 49} C.F.R. § 26.45(a)(1).

^{62.} Northern Contracting II, 2005 U.S. Dist. LEXIS 19868 at 74.

^{63.} Adarand Constructors, Inc. v. Peña, 515 U.S. at 238 (1995) ("Adarand III").

^{64.} Builders Association of Greater Chicago v. City of Chicago, 298 F.Supp.2d at 739 (N.D. Ill. 2003).

answered, 65 but governments would be wise to analyze data at least once every five or six years.

In contrast, the USDOT DBE Program's periodic review by Congress has been repeatedly held to provide adequate durational limits. ⁶⁶Similarly, "two facts [were] particularly compelling in establishing that [North Carolina's M/WBE program] was narrowly tailored: the statute's provisions (1) setting a specific expiration date and (2) requiring a new disparity study every 5 years." ⁶⁷

^{65.} See, e.g., Associated General Contractors of Ohio, Inc. v. Drabik, 50 F.Supp.2d 741, 747, 750 (S.D. Ohio 1999) ("Drabik I") ("A program of race-based benefits cannot be supported by evidence of discrimination which is now over twenty years old.... The State conceded that it had no additional evidence of discrimination against minority contractors, and admitted that during the nearly two decades the Act has been in effect, it has made no effort to determine whether there is a continuing need for a race-based remedy."); Brunet v. City of Columbus, 1 F.3d 390, 409 (6th Cir. 1993) (fourteen-year-old evidence of discrimination "too remote to support a compelling governmental interest.").

^{66.} See Western States, 407 F.3d at 995.

^{67.} Rowe, 615 F.3d at 253.

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III. THE STATE OF WASHINGTON'S CONTRACTING EQUITY POLICIES

This chapter first describes the State of Washington's contracting equity policies. We next present the results of our public meetings and interviews with business owners and stakeholders regarding these policies and their experiences in seeking State prime contracts and associated subcontracts. Finally, we present comments and suggestions from State staff with contracting and procurement responsibilities.

A. The State of Washington's Contracting Equity Policies

Washington State government is committed to inclusion and diversity in its contracting and procurement activities. The State has created the Washington State Office of Minority Women's Business Enterprises ("OMWBE"). The agency's mission is to "promote equity and increase participation in public contracting and procurement for small businesses owned by minorities, women and disadvantaged persons through education and certification". This is accomplished through a comprehensive certification process and education. OMWBE certifies small businesses owned by women, minorities, and socially and economically disadvantaged persons to facilitate their participation in public contracting and procurement. OMWBE has an Advisory Committee that includes leaders who represent the interests of minority and women small business owners throughout the State. OMWBE tracks spending with certified firms and prepares reports for the Governor, legislature and the public. In addition to certification, education and outreach functions, OMWBE publishes agency supplier diversity plans.

The Office has approximately 20 full time staff positions and a biennial budget of approximately \$4.5 million. There is a Director and three Assistant Directors. The great majority of staff are devoted to certification and compliance.

To be certified as an MBE, WBE or M/WBE, a business must be:

- A for-profit business.
- Licensed to do business in Washington.

- A small business according to U.S. Small Business Administration size standards.
- Able to perform the services necessary to fulfill the contract.

Eligible owner(s) must:

- Be female, African American, Hispanic American, Native American, Alaska Native, Asian American, or Pacific Islander. Other individuals may be found to be socially and economically disadvantaged on a case-by-case basis.
- Be a U.S. Citizen or permanent resident.
- Own at least 51 percent of the business.
- Control managerial and day-to-day operations.

The applicant bears the burden of proof of eligibility by a preponderance of the evidence. Applications are to be processed within 45 calendar days.

OWMBE has developed a manual and other documents to explain and guide applicants through the certification process.

Approximately 2500 firms are certified.⁶⁸

Agencies, educational institutions, local governments and prime contractors use the OMWBE's online directory to find certified firms with business descriptions that match the goods and services they want to purchase.

OMWBE also conducts targeted outreach to match public entities' and prime contractors' purchasing or contracting needs with certified firms.

OMWBE's website lists bid opportunities and relevant events, available free training through partners, announcements, and information on a variety of other resources. OMWBE provides extensive information, including a Small Business Guide that provides help with planning, starting and running a business; certification facts and checklists; definitions and links about money and loans; surety bond education and programs; and video tutorials. OMWBE also utilizes email blasts to certified firms and social media to provide news, information and notice of bid opportunities.

The OMWBE website provides information about "Alternative Financing Resources". It lists links to lending resources websites and FAQs regarding microloans; peer to peer lending; merchant cash advances; invoice factoring or accounts receivable financing; purchase order financing; crowdfunding; equipment loans; inventory loans; asset-based loans and loan terms.

^{68.} OMWBE FY 2017 Annual Report.

Washington State operates a Linked Deposit Loan Program ("LDP") to assist small and certified firms to obtain working capital. Enacted in 1993, the program links the deposit of State funds to loans made by participating financial institutions to qualified minority- and women-owned businesses. The deposit of State funds is made at below market rates. The savings are then passed on by the bank to the Linked Deposit borrowers in the form of an interest rate reduction not to exceed two percent. Any business-related loan carried by a certified firm, and made by a participating lender, is eligible for enrollment in the program. The LDP allows a certified firm to receive an interest rate reduction on existing business loans made by a participating lender. Qualifying loans include lines of credit; financing of accounts receivable; working capital; equipment purchases; real property acquisition; and other business-related financing. There is a \$1,000,000 per-loan maximum but no limit on the number of loans a firm may have. The loan term may be up to 10 years. Firms must satisfy their bank's financing/loan criteria. The LDP is not a loan or loan guarantee, and the State cannot help a firm obtain a business loan.

Some agencies have recently begun to implement the B2GNow data collection and monitoring system to assist with certification management; outreach; and compliance.

The Department of Veterans Affairs certifies businesses owned by veterans. Eligibility requires only that the owner be a veteran, defined as having received an honorable discharge or discharge for medical reasons with an honorable record or be an active duty or reserve member of any branch of the armed forces; the veteran must own and control at least 51 percent of the applicant firm; and the enterprise must be incorporated in the State of Washington or have its principal place of business in Washington if not incorporated. State agencies are to do five percent of their purchasing with VBEs. VBEs are also eligible for the Veteran Linked Deposit program, which operates similar to the Linked Deposit program for other firms. The Department also provides links to services for VBEs on its website.

The Department of Enterprise Services ("DES") offers online self-certification for small businesses.

Another race- and gender-neutral measure implemented by the State is the "Direct Buy" contracting method. Agencies are authorized to purchase goods and services up to a cost of \$10,000 (excluding sales tax) directly from a vendor and without competition. In addition, agencies are authorized to purchase goods and services up to a cost of \$13,000 (excluding sales tax) directly from a vendor and without competition if the purchase is being made from a microbusiness, minibusiness, or small business. Agencies must use existing "master contracts" before engaging in direct buy. Only when a master contract cannot meet an

^{69.} RCW 39.26.125, Department of Enterprise Services policy 125-03.

agency's need is direct buy permitted. Agencies are "encouraged" to buy from M/WBE; however, they may not unbundle a purchase to use direct buy "to avoid using a competitive process".

In 1998, Washington voters approved Initiative 200 ("I-200"), codified as RCW 49.60.400. The Initiative provides: "The State shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting." It then includes a number of clarifications, exceptions, and other provisions. The Washington Supreme Court has construed the statute to "prohibit reverse discrimination where race or gender is used by government to select a less qualified applicant over a more qualified applicant". The Washington Supreme Court has construed the statute to "prohibit reverse discrimination where race or gender is used by government to select a less qualified applicant over a more qualified applicant".

B. Business Owners' Experiences with Obtaining State of Washington Prime Contracts and Subcontracts

To explore the experiences of business owners seeking work on State prime contracts and associated subcontracts and the effectiveness of the efforts of OMWBE and the State's race- and gender-neutral measures, we received input from 252 individuals. Quotations are indented and have been edited for readability. They are representative of the views expressed during the interviews.

Most M/WBEs reported it is extremely difficult to obtain work on State projects. Without M/WBE contract goals, firms receive little work.

[The general contractors] would just bluntly tell me, "It's not mandatory, so we're just gonna use the same old guys that we've always used to do the hauling on these projects".

There's no condition of award on the State level so it's just a waste of time.

[Large prime contractors] don't do business with us except for the fact that they get credit because we're OMWBE certified [for federally-funded contracts].

The voluntary goal is a fallacy. It's just there just to make us feel good, but it's just a waste of time.

^{70.} RCW 49.60.400(1).

^{71.} RCW 49.60.400(2)-(10).

^{72.} Parents Involved in Community Schools. v. Seattle School District 1, 149 Wn.2d 660, 689-90, 72 P.3d 151 (2003).

^{73.} This includes the public meeting, stakeholder sessions, business owner in person interviews and business owner telephone interviews.

The experience with voluntary goals is they will not be successful.

There's no incentive or penalty for not meeting goals anyway. They're just kind of like, to me a political feel good kind of process, that shows that we're doing our minority thing.

It's a voluntary goal. They don't do outreach to the community, small and diverse businesses.

At the end of the day, ethnic minority firms ... are still at the very bottom with no work at all and no hope for growth.

Certification as a M/WBE by the State was reported to confer few benefits, especially in relation to the time required to go through the process.

There was no benefit even if they are a minority contractor. There's no benefit to going through that hassle.

There's no connection between [being certified by OMWBE] and actually getting work.... OMWB is there only to make a list and we have that many businesses, but they don't really advocate for us.

I haven't really seen the benefits.... I do get phone calls, but I feel like my calls are more just to meet their GFE, their Good Faith Effort. We called a minority contractor. We've done our due diligence.... I've just got to build my business. I'm not relying on these programs.

We pay all of our money to provide for this certification that does us absolutely no good.

Is there a real reason to continue that certification program if there aren't gonna be any goals, if there aren't gonna be any direct services?

It's not been helpful for me in any way, shape or form, and now I'm beginning to wonder if it is hurtful.

Some M/WBEs felt that certification was actually a detriment because it can be viewed by other firms and agencies as a stigma.

[There are some] minorities that have thought that getting certifications for the DBE and MBE were stigmas.... Our challenge is how do you get in the door to show your capabilities if you don't have the certifications that's going to help? So, it's a two-edged sword.

[Certification] itself is a stigma.

I found out real quick not even to mention the program or that I'm certified.

[Being a certified firm in and of itself] has been [a stigma] for us.

Once we became certified, we found that the ability to gain contracts has slowed down a little bit because then people don't, especially I think in the agency aspect of it, like staff, they see certification as in, "Oh, they're just using the color of their skin to try and get a contract," as opposed to, "Let's dig into their experience."

It took ten years to get certified, and then sometimes as we push to get some of that work, sometimes our certification almost seems to hurt us.... We just want to get to the table.

Long established firms recounted the negative impact of Initiative 200 ("I-200").

We had the ability because of the goals that were in place to get pulled onto projects simply because we were certified, and so my larger firm that I used to work with, the only incentive they had to pull me back on was really that they needed to make that goal on a particular project, and that was the situation for the first, I don't remember how many years it was until I-200 was enacted.... I've been working at it long enough that I will get phone calls just because they know what I can do, and they value the work that I do. That wouldn't have happened when I first started out, so we really needed those goals.

Prior to I-200, so we had State goals, you know? Literally people were knocking on my door, my phone was blowing up, "Can you be on our team?" Our business expanded quite well under that. Ever since I-200 went away, since the I-200 and all the goals went away, our State participation and local agency participation has gone down.

The opportunities dried up, virtually overnight [upon adoption of I-200].

[The impact of I-200 was] huge.

[After I-200] there's no incentive [to utilize M/WBEs] here in Washington.

Similar effects were reported by White women after the implementation of a waiver by the Washington State Department of Transportation that dropped this group for credit towards meeting contract goals in the Disadvantaged Business Enterprise program for federally-assisted transportation contracts.

My work loss has probably been in excess of 50 percent since [White women were no longer eligible for DBE credit on WSDOT jobs]. So, I need that work to survive, my employees need that work to survive and it's drying up fast.

Turning to the efficacy of various race- and gender-neutral measures, the recent requirement on some contracts that bidders provide Inclusion Plans was seen as ineffective.

As soon as they get that contract, [despite their Inclusion Plans] they just say, "Oh you know what, [name]? We're going to self-perform that." There has to be consequences for changing the execution of the contract once the contract has been signed.

People have to work in their own self-interest, and if they know there are no consequences for not complying to the rules that you're trying to develop, it won't make any difference.

What's going on right now with the Inclusion Plan is not very effective, because there is no real enforcements or oversights to ensure that the agencies or the primes are utilizing properly their small businesses.

When [M/WBES] do get a contract, whether they get a small portion or a large portion, then the agency sometimes doesn't follow through on the total amount of the contract.

The State of Washington has no system for accountability or people taking these things seriously to make these goals happen.

I'm looking for enforcement.

Many owners and stakeholder representatives stated that it is difficult to access information about State contracting opportunities.

One of the main problems is information.

By the time we find out the information, it's too late to apply for those contracts.

Make sure that the word gets out, in a timely fashion, to the right places.

Make it transparent enough. We're not asking [for a contract] to be set aside for us, but we'd like to know about it in time to be competitive on that project.

At the federal level, I can dig up and do market research and find out who has won contracts, at what price, when. I can find all that. But at the State level, I can't find anything ...[other than] State master contracts I don't know how to find just purchases.

We need [information] to be able to compete off the reservation in these other industries [beyond gaming, cigarettes and fuel sales].

We have a very small reservation. We have approximately 800 members. There's all of this WSDOT or State work going on right in our neighborhood ... that we have no chance of getting any part of that work. A good example is the I-5 work that's going on from Mounts Road up through DuPont there. I don't know that we even knew that project was coming up, just all of a sudden there's contractors out doing that work. We had no opportunity to participate.

I don't know why they can't just do an award notice on WEBS. WEBS is the system where they post the notice, why can't they do a follow up award notice who they bid it to? Who won it?

State contracting personnel were reported to prefer large firms and often rejected small firms and M/WBEs to reduce perceived risk.

People want to go with the least risk.

[There is] an institutional bias against small business, primarily due to risk and various perceptions of risk.

A common observation was that informal networks negatively impact minorities and women.

I don't golf. I'm not taking you to dinner, I'm not taking you to drinks, and I'm not paying for your golf. I'm here to do your contract, I'm here to do your business work the very best that I can do it and it shouldn't matter who I am.

Most people prefer to work with people they know, they have relationships with. I don't necessarily think they pick their own race or something, but I do believe that if you don't have a relationship, then you don't have a job.

That's also human nature, the familiarity.

Prime contracts were especially difficult to obtain.

There's no opportunity for us, listed as a small business, to gain experience with that agency, which would then help us in the future position to actually make a prime on one of those contracts. That barrier to getting into working directly for State agencies is really high, almost to the point where we'll no-go a decision to go after working for a State agency versus going after some transit project, which has DBE goals, or working on a WSDOT project, which has DBE goals, because that gets us an entry point and makes us more attractive for those agencies to hire us as a subconsultant, and then helps build our resume.

We have a limited budget and we can't compete against those large primes that have been working for those agencies for years. It's impossible.... Quality is what delivers us and keeps us moving forward. So, we try to focus on that.

The system seems rigged to favor the large firms.

If you have a contractor in mind that you want to hire, do not waste my time by putting something out there on WEBS that I put 40 or 60 hours of valuable time in to bid on only to have no chance in the world of getting in.

The perception is that if you've got one huge company team, that's way better than a team of small business owners.

The timelines were insanely compressed and it was completely unrealistic. These RFPs are being written in such a way to also block small business from applying.

Many interviewees mentioned the size and complexity of State projects as major barriers to participation by small firms in any role. "Unbundling" contracts was one method to increase opportunities for smaller firms.

They could break contracts up from the beginning.

The State has to be serious about breaking projects down

Package it in such a way that small businesses could get some traction because I cannot go after something that's a million dollars worth of engineering work.

Why not send out smaller projects to a new firm to see how it goes? Otherwise you're never gonna get any new businesses. It'll always be the same three firms.

Experience, bonding, insurance, financial status and other contractual requirements pose barriers to small firms' participation on State contracts.

Past performance, does weigh a lot in getting a contract.... Try to get some equivalent in commercial [building construction].

The fact that your firm did ten of these jobs doesn't have anything to do with the seven people still in the office who may or may not participate on any of those.

One of the biggest areas in construction where you can help small businesses is just keep them bonded.

Insurance requirements almost seem like a back door for eliminating small contractors, because they make the insurance limits so high, without any promise of business.

It would be awesome if the State had a specific type of loan program that was based on the value of the contract because there's a lot of factoring lenders out there that are taking advantage of [small firms].

[Prime firms agreed that M/WBEs and small firms need] access to capital.... Maybe a loan program [is the answer].

The State's highly decentralized procurement systems pose additional challenges to M/WBEs and small firms.

One of the things that they have to do is that one, they have to decentralize the procurement process [because] everybody can buy whatever they want to buy from whomever they want to buy. Until they put a methodology and a process in place that says everything will be procured through the procurement office with guidelines, parameters, policies, everybody is going to continue to buy from their next door neighbor, from their friend, from everybody that they know. There is not going to be any sort of stringent application of understanding whether it's best value that they're procuring or is the State of Washington just spending money without really understanding what this looks like. Until they centralize procurement, they won't be able to understand the value that minority businesses bring to the procurement process.

As a small firm, you don't have the marketing staff that will be chasing 32 different roster programs for your 32 or 33 agencies.... One central, one-stop-shopping procurement I think would be great for the small firm.

Depending on which department you're working with, the rules are different.

The Department of Transportation, they have one set of rules. And then other parts of the State have another set of rules. It gets confusing to people depending on who they're dealing with.

It's all over the place. That's hard. You really have to look around and find the right person.

Antiquated procurement systems within this decentralized structure pose further burdens.

We really need to streamline the contracting process. I have a couple of Neanderthal [State] customers. Sweet, wonderful folks, but they're stuck in physical signatures on contracts.

Outreach activities to connect M/WBEs and small firms with State contracting staff and prime vendors was one suggestion to increase opportunities.

Maybe there could be a couple of activities to invite both big firms and small firms together. I know that in the past, the Port of Seattle has been hosting yearly events together.

Just yesterday we had a contractor exchange program, where it was, we had 20 big general contractors in Lynnwood, Washington, meet with minority firms, disadvantaged firms, and they exchanged cards. They met, they interviewed. I think the State could facilitate those [meetings].

They need some targeted outreach to the A[rchitecture] E[ngineering] community in particular.

[WSDOT has] a really great outreach program where they invited firms, small firms to come and meet with all of their staff. And there were also big firms there too. I had a little booth and the WSDOT people came up and talked to me a lot and introduced me to more WSDOT people and the primes saw that, saw that that networking was happening, so I got on some big teams.

One participant cautioned that these events do not necessarily lead to work.

I had attended the Port of Seattle's annual yearly event after-hours, four or five times, and I could chat with them for a long time. But in the end after that nice friendly chat, there is just no second or next phase. I stopped going to attend those events now, because it's just not meaningful for us.

Many small firms and some large contractors suggested technical support to do business with the State.

Quite a few of the people don't have a really strong knowledge base, and they don't have the resources available to them to be able to pursue the contracts.... It is not an easy venue to go into, working with the government.

I never got any direction [on how to do business with the State after I was certified].

Not only having access to the information, but helping somebody learn how to navigate that, is just, it's crucial, it's vital. There's so much obstacle that we have to go through, and yet there is no system to assist them... [We need] better services from the State perspective dealing with immigrant or minority business.

[The State should provide] on-demand training videos.

There are a lot of different systems to work through. And I don't think we have a good idea of what those systems are. So, if there was someone who could help us identify what systems we need to be looking at to identify the RFPs, that we should bid on, that would be great.... [We need training on] what business practices do I need to put in place before I'm actually doing business, to make sure I'm doing it correctly.

When to hand over the bookkeeping to an accountant, to someone else or hire someone to do the bookkeeping, just those logistics. A lot of people need that kind of help. A good evaluation program, making sure that every employee of yours has a job description, that you have predictive evaluations, that kind of stuff. Just employee incentives, how to motivate employees, how to retain employees.

Provid[e] that nonprofit technical support that oftentimes a lot of tribal members need and are not able to access in major cities given where they're at.

Several owners had positive experiences with the Procurement Technical Assistance Centers funded by the U.S. Department of Defense and other agencies, and suggested the State leverage its resources to partner with these entities.

I'd love to see some State support. The State of Oregon, for example, funds their PTAC 50 percent.

There's the PTAC.

Thank you to PTAC because there are groups that have been very helpful that we have found along the way.

Other agencies and even some large national prime firms have provided useful training and assistance.

The University of Washington has the consulting and business development center. There's a group called the Business Growth Collaborative, and it's a nominal fee. They also have scholarships available.

[Name] had the BOOST program. I went through that. It was like, I don't know, ten classes after work. That was really helpful. I mean even though we had done commercial work and I was familiar with a

lot of it, it really made things make sense to hear it from the G[eneral C[ontractor]'s side of things, and why they did things the way that they did things. That helped us a lot I think with business development and to not be too annoying as a new sub doing public work.

A mentor-protégé program was one possible enhancement to support small firms.

Mentoring is a big thing.

[There are] a lot of G[eneral C[ontractor]s or primes that would come and help out.

One of the things that I think is always helpful for a small business is some sort of mentoring program.

Maybe you need a mentor-protégé program for every industry.

A robust mentor-protégé [program] would help small businesses if the State set it up in a way so that it was trackable and measurable so that if you as a mentor participate and you don't perform, there's gonna be some consequences.

M/WBEs almost universally recommended the adoption of an enforceable raceand gender-conscious program to remedy the effects of discriminatory barriers.

Mandated goals and maybe set aside contracts like in the federal world.

Where it's actually enforced, everybody's conscious of it. And if they meet a competent woman, they will be like, "Give me your card. I will pass it on. We need to work with you."

Some non-M/WBEs and trade association representatives disagreed.

[Name] experience has been that the most effective approach is to make emerging businesses successful through outreach, training, public policies that grow their capacity, not by imposing heavy handed mandates.

Everybody's paying a premium to make sure that they meet the quota [in a program that sets contract goals such as the Disadvantaged Business Enterprise program for federally-assisted transportation contracts administered by the Washington State Department of Transportation]⁷⁴, and, oftentimes, the subcontractor that they're using cannot handle the amount of work that they've got. So, in my opinion, all of these quotas and everything are a problem. I think that

^{74. 49} C.F.R. Part 26.

it ought to all just be merit-based. I do not see any discrimination based on race, or sex, or whether or not you're a veteran. I think that this industry needs quality people, and everybody's willing to give everybody a shot as long as they present themselves competently. I don't think set-asides are what we need to do.... A lot of the womanand minority-owned firms are so maxed out right now, they'd probably appreciate a little bit of relief.

Another or additional approach would be to adopt a small business target market or "set-aside" program, whereby small firms on a race- and gender-neutral basis would compete against each other for specified contracts.

It's an apple to apple competition.

I would be interested in a small business setaside.

it's a very good idea to have a setaside for small businesses.

The project was put out for a certified small business only [by another government], so we got the opportunity to do this project, to get to know the decision-makers. Because of that project, I got the opportunity to team up with a prime consultant to pursue the project. Without the small business only project, I wouldn't have the chance, so I am very supportive of this idea.

Small business setasides are good. On the federal side we see that a lot.

C. State Staff Experiences with Contracting and Procurement Policies

In addition to business owner and stakeholder group representatives, we interviewed State staff (selected by the State) with contracting and procurement responsibilities to solicit their experiences and recommendations for greater inclusion and diversity.

Several officials described their frustration in finding qualified certified firms. Many stated that M/WBEs fail to register in Washington's Electronic Business Solution ("WEBS"), the State's on-line procurement portal.

Vendors out there that are interested in getting work through the State are encouraged to sign up and they get to choose their own commodity codes.... We always encourage them to sign up in WEBS for whatever commodity codes they choose, because that's our primary means of getting the word out to those potential bidders. So, the barrier is, that I don't know how an entity like DES would encourage

small, minority businesses to sign up for WEBS. We don't control that here at [agency], and I don't think the other agencies control that directly.

[OMWBE] should be making it a requirement that those vendors that are now certified firms [get] registered in WEBS.

We advertise a lot of the commodity codes. So, if they're registered in there then that would give them more of a chance to be able to go to bid on all that kind of stuff.

More information for State contracting staff was suggested.

We need easy access to resources and information about how to do outreach, how to unbundle, how to give notice to whom and how and what to do about the master contracts for office supplies, etc.

[We need] more detailed definitions that we can search on of what they can provide [on the OMWBE site].

A coordinated State effort to build some tools that make it easier to identify diverse vendors.... We've been focusing more on small business right now than trying to push business to women and minorities because it's just been so difficult for us to operationalize that.

It's one thing for construction, where it's maybe more [information in the State's database], there's more detail in there because of the DBE program, but a lot of the other areas, the information on the certification websites about the specific need you might have, a lot of that information for goods and services isn't clear enough on the website, or on the business's website.

Outreach events for specific industries was one method suggested to increase information available to contracting officials.

[Do] an event every two, twice a year, that was industry specific, where purchasers and end users could meet businesses, so when the need came up, they knew that right fit. Kind of like speed dating, where you kind of know who's in the right bucket, you kind of have your Rolodex, and then you're not connecting with people who aren't a fit, and just creates frustration on both sides.

State projects often have short lead times, which makes it difficult for small firms to respond in a timely manner.

A big barrier, which is early notice for small businesses. A lot of times on the internal procurement, what I'm hearing is that there's a very

short turnaround between when the procurement professional receives notice of the need, and when it has to be posted. There's pressure for the procurement professional to give more notice, but the procurement professional's saying, "I can't do it any faster."

It's a short time window, and I don't have time, so we're not going to do the outreach, we're not going to do the pre-conference, we're not going to invite other people that we don't know to come participate.

Contracting forecasts would help to alleviate this problem.

So, the only way that really notice can be provided is that early budgeting procurement planning by the end user, manager, division of the need for work.

If we change our model, we're more secure about our budget and we're secure about the project expectations going in, and the solicitation identifies a really clear project plan, really clear budget release dates for releasing money, then small businesses can play.

Contract size, complexity and timelines create obstacles to utilizing M/WBEs and small firms.

We're always trying to look at saving money and that typically is doing larger, broader, more encompassing contracts that down the road, if we have to add components on, it tends to cost more when you do it that way, piecemeal.

We got advice from our oversight agency, DES to say, "Look at the whole approach of a project." Which tends to make them larger, which tends to not favor small businesses.

There was another conflict that was identified frequently, and that is the concept between saving the State resources, whether it's money or time, and utilizing diverse vendors, because diverse vendors tend to be smaller companies... The time it takes to manage the contract is more extensive because you've got more of them.

We don't know the market by geography, and we don't have time to learn that, so we're just going to do statewide.

Sometimes the contracts are so complex and they have so many bundled services included in them that a smaller diverse business just cannot meet those requirements. So, we're really eliminating or creating a barrier by creating such a large contract. We're saying that this one contractor can provide everything. We're really doing the smaller businesses a disservice by creating a contract there's no way they can fill.

Insurance and surety bonding requirements can discourage or eliminate small firms.

We purposely brought [certified firms] in because this is a low risk procurement, but then the contracts officers, they don't have either authority or knowledge on how to modify the boilerplate. The boilerplate's written at the highest risk level. That's an immediate barrier. Because procurement's very time sensitive, there often isn't the time to adjust it for the case. A lot of times, the small businesses just back[s] right out, at that point. Which is disappointing, because they went through truth building certification, enrollment, and they know they can do the work, but this insurance thing is in the way, or risk transfers in the way.

Maybe the State could develop a bonding financing program for small businesses that would be quicker than the [U.S.] S[mall] B[usiness] A[dministration]'s program.

The use of statewide "master contracts" reduces opportunities for diverse and small businesses.

Agencies primarily rely on those contractors, contracts, and the DES master contract, and that's a barrier for minorities, so there's a disconnect, significant disconnect there.

We have a DES policy that says we're supposed to be using master contracts whenever available. That kind of limits us on some procurements as far as the vendor pool that's available because those have to have a bid on a master contract with DES to be selected as a vendor to provide that service. So, that's one way that DES, with their policies, current policies are pushing us towards, is to say, "Hey, we invested this time and effort in master contracts. Use them if it's available to get the goods or services that you need."

Many contracting staff were wary of trying to "unbundle" contracts to facilitate certified and small business participation.

We have to be really careful when we consider unbundling

Unbundling is something you're discouraged to do, because it looks like you're taking apart a contract just so you can get a vendor of choice. And that isn't necessarily true.

Unbundling gives a perception that we're trying to spend maybe a certain dollar threshold or that we're trying to favor a certain vendor to win that, part of that procurement.

Several interviewees suggested raising the limit for direct buy contracts to increase opportunities for M/WBE and small firm participation.

Raising the direct buy limit would help a small agency like [name] quite a bit.

The direct buy limit is very low from my perspective and from my perspective that is the main opportunity that we have to actually influence the actual spends that we have.

Smaller public work contracts are the contracts that some of these minority businesses really want.

Technical assistance and support were recommended by many staffers. M/WBEs need training and resources to increase their capacities for State work.

A tutorial about how to access our contracting opportunities [specific to each agency would be useful].

Some contracting staffers expressed concern about showing "favoritism" or providing an unfair advantaged to MWBEs by providing information.

There was still fear that that was providing information only to a select group of individuals.

We're sort of beaten about the head about, "You never show favoritism. And communications with entities have to be certain way and very generic because you can never really show that you're giving one business an advantage when it comes to the bidding process."

Others pushed back.

It's a good idea for [vendors] to be able to approach the contracting units and say, you know, I'm thinking about applying for this. I don't understand the language that the bid is written in. Or some of the language that's going to be included in the contract, can you explain that to me? Can you help me weed through it? We're certainly not giving them any additional help that they wouldn't, that we wouldn't give to anybody else.

If we can find a way to reach those smaller vendors, and to help them through the process, I think it will make a big difference in our quality of service.

There was a general consensus that more training and resources for procurement and contracting personnel are necessary to advance the goals of equity and inclusion.

There is some confusion among contracting and procurement personnel about the relationship between diverse contracting and general procurement rules, what trumps what, how do they fit together, and the resources that might be able to assist them to better meet diverse contracting goals and objectives, so that would be a training element.

Explain diverse contracting to those people in the various offices that work on procuring goods and services for the agency, or whatever agency, that could be put in more simple, plain, English terms, and that way it'd reach a lot of people.

The program just has an objective and they leave it up to the contracts or the procurement unit folks to then go out and find what vendors are out there that can provide those services.

[Our agency has] no one that is responsible to push the agenda, I would say, for minority and diverse women, veteran businesses.... We rely on OMWBE, because we don't have those dedicated staff.

The biggest barrier for us is not having tools or resources. We're talking about unbundling and outreach work and all this, but how do we do that? Without some guidance on what is the best way to do the outreach or how do we unbundle contracts or how do we contract more with minority women, without some resources to help us get there and ask the questions, that's probably a big barrier for us.

We could boost up the knowledge and resources on [diverse spend].

The State of Washington needs to have a budget for this.

Some participants stated that the lack of an enforceable, race- and gender-conscious program greatly reduced the incentive for minority- and woman-owned firms to become certified and participate in State programs.

There's no benefit, you know, for the vendors to [become OMWBE certified]. There's nothing we can do special for them.

Certification has been a barrier for many of these firms because they don't necessarily see a benefit to becoming certified.

We did Inclusion Plans, and where it was voluntary, we just said hey, this would be nice to have. We got zero results, even after following through.

One agency reported making progress using Utilization Plans, which might be more detailed.

We ask for a Utilization Plan. And that Utilization Plan we're asking them to identify the work scopes, based on what they know now, what of the works scopes that they would see that they will be subcontracting and where do they see opportunities for utilization of Ms and Ws. So, that forces the contractors to be much more explicit and much more thoughtful and focused about how they're going to get utilization, as opposed to just saying "Okay, we're going to do these events. We're going to shotgun 10,000 emails to all of these firms and satisfy our outreach requirements."

D. Conclusion

Overall, the State's race- and gender-neutral contracting efforts were reported to provide some assistance to M/WBEs and small firms. However, business owners, stakeholder representatives and State personnel identified various impediments to achieving State prime contracts and subcontracts for M/WBEs and small firms. These included lack of access to information; contract size and complexity; a preference by State contracting staff for large firms and large contracts; requirements for insurance and bonding; short lead times; decentralized purchasing; and a low ceiling for direct buy contracts. M/WBEs reported that they receive few opportunities in the absence of M/WBE contract goals. Race- and gender-neutral measures such as additional outreach; training; a higher direct buy limit; and a small business target market or setaside were all proposed to address these barriers.

IV. UTILIZATION, AVAILABILITY AND DISPARITY ANALYSES FOR THE STATE OF WASHINGTON

A. Introduction and Overview

A central component of a legally defensible disparity study examines the contract data of an agency (its utilization) and compares that to the universe of firms that potentially could have received contracts (its availability). Strict constitutional scrutiny requires that a state government limit its race-based remedial program to firms doing business in its product and geographic markets. Put another way, the study looked at what the State *did* relative to what it possible *could have achieved*. To conduct this analysis, several steps must be undertaken:

- 1. The determination of the State's "unconstrained product market". This is defined by the set of North American Industry Classification Systems ("NAICS") codes representing industries or product markets where a significant portion of the State's spending occurs (i.e., what goods and services does the State purchase).
- 2. The determination of the State's "geographic market". This represents the territory that covers the area where most firms who win contracts from the State are located (i.e., the geographic area where the State spends most of its monies).
- 3. The determination of the "constrained product market". While the unconstrained product market has no spatial boundaries, distance is a determinant of what firms the State utilizes. Therefore, the third step constrains the unconstrained product market by the geographic boundaries, which results in the constrained product market. (Sometimes the imposition of this geographic constraint reduces the number of NAICS codes compared to the results in the first step).
- 4. The contracts that remain after the determination of the unconstrained product market are analyzed to determine the State's utilization of businesses (i.e., how it spends its monies across industries and the demographic profile of the ownership of firms that receive agency funds.)
- 5. The next step is to determine the set of firms that were availability to receive contracts from the State. This set of firms is defined by the set of NAICS

- codes in the constrained product market and the spatial boundaries set by the geographic market.
- 6. The resulting availability is weighted by how the State spends its money. This means the distribution of MWBEs and non-MWBEs across industries is tempered by how the State spends its monies (i.e., without this weighting, the result might be a cluster of certain MWBEs in industries where few funds are spent and consequently, present a picture of robust MWBE opportunities while in reality those firms have limited opportunities to receive significant funds from the State).
- 7. The ratio of the utilization of a particular demographic group over that group's weighted availability results in the disparity ratio.

The subsequent sections of this Chapter present the empirical results of the CHA examination of the State of Washington's activity.

B. Contract Data Overview

We analyzed the State of Washington's contract data for fiscal years 2012 through 2016. To conduct these analyses, we constructed all the fields necessary for our analysis where they were missing in the State's contract records (e.g., industry type; zip codes; NAICS codes of prime contractors and subcontractors; non-Minority- and Women-owned Business Enterprise ("M/WBE") subcontractor information, including payments, race, gender; etc.). The resulting Final Contract Data File for analysis contained 3,303 contracts with a total paid amount of \$3,484,653,357. Of these contracts, 613 were prime contracts and subcontractors received 2,690 contracts. Prime contractors received \$2,596,300,922; subcontractors received \$888,352,435. Prime contractors received 74.5 percent of all paid dollars; subcontractors received 25.5 percent of all paid dollars. The Final Contract Data File was used to determine the geographic and product markets for the analyses, and to estimate the utilization and availability of minority- and women-owned firms by funding source and contract type.

C. The State of Washington's Product and Geographic Markets

Markets have two dimensions: geography and industry. As discussed in Chapter II, a defensible disparity study must determine empirically both the industries that comprise the State of Washington's product or industry market and the spatial location of its vendors. This requirement ensures that the evidence focuses on the agency's actual activities and that any remedies adopted are narrowly tailored.

The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry, Classification System ("NAICS") codes⁷⁵ that make up at least 75 percent of the prime contract and subcontract payments for the study period.⁷⁶ However, for this study, we went further, and applied a "1 percent" rule, whereby we analyzed NAICS codes for the State's contracts where the share of the total contract dollars was at least 1 percent; where the share of the prime contract dollars was at least 1 percent; and where the share of subcontract dollars was at least 1 percent. We took this approach to assure a comprehensive analysis of the State's activities.

1. The State of Washington's Unconstrained Product Markets

Tables 4.1 through 4.3 present the NAICS codes used to define the unconstrained product market for the State's contracts.

Table 4-1: Industry Percentage Distribution of Contracts by Dollars,
All Contracts

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
522110	Commercial Banking	12.62%	12.62%
236220	Commercial and Institutional Building Construction	10.79%	23.40%
623210	Residential Intellectual and Developmental Disability Facilities	10.35%	33.75%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.73%	41.48%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.09%	48.58%
624120	Services for the Elderly and Persons with Disabilities	6.01%	54.58%
441110	New Car Dealers	4.53%	59.11%
621610	Home Health Care Services	4.19%	63.30%
541310	Architectural Services	2.74%	66.03%
238910	Site Preparation Contractors	1.81%	67.85%
624210	Community Food Services	1.46%	69.31%
541330	Engineering Services	1.29%	70.59%

^{75.} www.census.gov/eos/www/naics.

^{76.} National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. https://doi.org/10.17226/14346. ("National Disparity Study Guidelines").

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
621420	Outpatient Mental Health and Substance Abuse Centers	1.27%	71.86%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.08%	72.94%
238350	Finish Carpentry Contractors	1.05%	73.99%
238310	Drywall and Insulation Contractors	1.03%	75.02%
TOTAL			100.0% ^a

a. An additional 249 NAICS codes contained the balance of the State's spending. The entire set of NAICS codes are presented in Appendix D.

Table 4-2: Industry Percentage Distribution of Contracts,
Prime Contracts

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
522110	Commercial Banking	16.93%	16.93%
236220	Commercial and Institutional Building Construction	13.90%	30.83%
623210	Residential Intellectual and Developmental Disability Facilities	13.86%	44.70%
624120	Services for the Elderly and Persons with Disabilities	8.06%	52.76%
441110	New Car Dealers	6.08%	58.83%
621610	Home Health Care Services	5.62%	64.45%
541310	Architectural Services	3.35%	67.81%
238210	Electrical Contractors and Other Wiring Installation Contractors	2.25%	70.06%
624210	Community Food Services	1.96%	72.02%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.79%	73.81%
621420	Outpatient Mental Health and Substance Abuse Centers	1.65%	75.46%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.44%	76.91%
541330	Engineering Services	1.17%	78.08%
TOTAL			100.0% ^a

a. An additional 108 NAICS codes contained the balance of the State's spending with prime contractors. The entire set of NAICS codes for prime contractors are presented in Appendix D.

Source: CHA analysis of State of Washington data

Table 4-3: Industry Percentage Distribution of Contracts by Dollars Paid,
Subcontracts

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238220	Plumbing, Heating, and Air-Conditioning Contractors	25.10%	25.10%
238210	Electrical Contractors and Other Wiring Installation Contractors	21.24%	46.35%
238910	Site Preparation Contractors	4.39%	50.73%
238350	Finish Carpentry Contractors	4.13%	54.86%
238310	Drywall and Insulation Contractors	3.97%	58.83%
238120	Structural Steel and Precast Concrete Contractors	2.95%	61.77%
332322	Sheet Metal Work Manufacturing	2.79%	64.56%
238150	Glass and Glazing Contractors	2.58%	67.14%
238160	Roofing Contractors	2.26%	69.41%
237310	Highway, Street, and Bridge Construction	2.22%	71.62%
238140	Masonry Contractors	2.08%	73.71%
236220	Commercial and Institutional Building Construction	1.69%	75.40%
541330	Engineering Services	1.62%	77.02%
238330	Flooring Contractors	1.51%	78.53%
238990	All Other Specialty Trade Contractors	1.33%	79.86%
238320	Painting and Wall Covering Contractors	1.23%	81.09%
238130	Framing Contractors	1.21%	82.31%
238290	Other Building Equipment Contractors	1.20%	83.50%
562910	Remediation Services	1.13%	84.64%
541611	Administrative Management and General Management Consulting Services	1.06%	85.69%
TOTAL			100.0% ^a

a. An additional 177 NAICS codes contained the balance of the State's spending with subcontractors. The entire set of NAICS codes for subcontractors are presented in Appendix D.

Source: CHA analysis of State of Washington data

2. State of Washington's Geographic Market

The State of Washington captured 97.9 percent of the unconstrained product market dollars and, therefore, the State constituted the geographic market.⁷⁷

D. State of Washington's Utilization of M/WBEs

Limiting the contracts in the unconstrained product market to those firms located within the geographic market results in the constrained product market. Table 4.4 presents these data, which form the basis for the subsequent utilization analysis. These data, Construction contracts received \$1,156,363,654 (40.5 percent); Construction-Related Services contracts received \$138,615,196 (4.9 percent); Goods contracts received \$219,629,769 (7.7 percent); Client Services contracts received \$453,845,078 (15.9 percent); and Services contracts received \$888,665,995 (31.1 percent). Tables 4.5 and 4.6 present data on the utilization of total contract dollars. It is important to note the contract dollar shares are equivalent to the weight of each NAICS code spending. These weights were used to transform data from unweighted availability to weighted availability, discussed below.

Table 4-4: NAICS Code Distribution of Contracts

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
522110	Commercial Banking	\$439,610,080.00	15.39%
236220	Commercial and Institutional Building Construction	\$365,491,808.00	12.79%
623210	Residential Intellectual and Developmental Disability Facilities	\$360,663,776.00	12.62%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$258,347,376.00	9.04%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$238,211,552.00	8.34%
624120	Services for the Elderly and Persons with Disabilities	\$209,287,600.00	7.33%
441110	New Car Dealers	\$157,749,008.00	5.52%
621610	Home Health Care Services	\$145,921,424.00	5.11%

^{77.} The distribution of the Washington dollars across counties is presented in Appendix E.

^{78.} To ensure that each contract awarding authority was represented in the Final Utilization Data File, we obtained two contracts from contract awarding authorities that were not represented after determining the constrained product market. Appendix F presents data on individual contract awarding authority utilization of contracts and contract dollars by demographic group.

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
541310	Architectural Services	\$93,971,824.00	3.29%
238910	Site Preparation Contractors	\$62,605,352.00	2.19%
624210	Community Food Services	\$50,921,164.00	1.78%
541330	Engineering Services	\$44,643,376.00	1.56%
621420	Outpatient Mental Health and Substance Abuse Centers	\$44,271,888.00	1.55%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$37,500,868.00	1.31%
238350	Finish Carpentry Contractors	\$33,558,684.00	1.17%
238310	Drywall and Insulation Contractors	\$32,697,236.00	1.14%
332322	Sheet Metal Work Manufacturing	\$24,379,888.00	0.85%
238160	Roofing Contractors	\$23,486,476.00	0.82%
238120	Structural Steel and Precast Concrete Contractors	\$22,911,502.00	0.80%
237310	Highway, Street, and Bridge Construction	\$22,741,838.00	0.80%
238150	Glass and Glazing Contractors	\$21,565,268.00	0.75%
562910	Remediation Services	\$19,578,962.00	0.69%
541611	Administrative Management and General Management Consulting Services	\$19,009,322.00	0.67%
238290	Other Building Equipment Contractors	\$16,483,917.00	0.58%
238140	Masonry Contractors	\$16,119,104.00	0.56%
541618	Other Management Consulting Services	\$13,993,494.00	0.49%
238330	Flooring Contractors	\$12,304,396.00	0.43%
531110	Lessors of Residential Buildings and Dwellings	\$11,832,743.00	0.41%
238990	All Other Specialty Trade Contractors	\$10,904,459.00	0.38%
238320	Painting and Wall Covering Contractors	\$10,733,393.00	0.38%
238130	Framing Contractors	\$8,201,279.50	0.29%
541840	Media Representatives	\$7,349,951.50	0.26%
541830	Media Buying Agencies	\$5,068,451.50	0.18%
517311	Wired Telecommunications Carriers	\$3,521,446.50	0.12%
624310	Vocational Rehabilitation Services	\$2,278,255.25	0.08%
517312	Wireless Telecommunications Carriers	\$2,033,950.75	0.07%

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
541511	Custom Computer Programming Services	\$1,423,323.75	0.05%
541690	Other Scientific and Technical Consulting Services	\$1,319,271.00	0.05%
561492	Court Reporting and Stenotype Services	\$1,250,975.88	0.04%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	\$980,759.81	0.03%
621511	Medical Laboratories	\$602,200.00	0.02%
611430	Professional and Management Development Training	\$338,666.19	0.01%
541612	Human Resources Consulting Services	\$305,000.00	0.01%
561613	Armored Car Services	\$197,611.88	0.01%
621330	Offices of Mental Health Practitioners (except Physicians)	\$183,989.00	0.01%
541219	Other Accounting Services	\$178,500.00	0.01%
518210	Data Processing, Hosting, and Related Services	\$176,014.27	0.01%
541211	Offices of Certified Public Accountants	\$116,500.00	0.00%
561622	Locksmiths	\$66,950.00	0.00%
561612	Security Guards and Patrol Services	\$28,790.42	0.00%
TOTAL		\$2,857,119,665.20	100.00%

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

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
236220	\$0.00	\$0.00	\$0.00	\$0.00	\$101,882.00	\$101,882.00	\$365,389,939.00	\$365,491,821.00
237310	\$585.00	\$0.00	\$1,360,485.00	\$3,600.00	\$1,211,219.00	\$2,575,889.00	\$20,165,949.00	\$22,741,838.00
238120	\$672,508.00	\$2,772,344.00	\$2,597,028.00	\$1,536,771.00	\$1,368,640.00	\$8,947,291.00	\$13,964,211.00	\$22,911,502.00
238130	\$0.00	\$0.00	\$53,569.00	\$0.00	\$31,040.00	\$84,609.00	\$8,116,671.00	\$8,201,280.00
238140	\$0.00	\$0.00	\$0.00	\$0.00	\$112,635.00	\$112,635.00	\$16,006,469.00	\$16,119,104.00
238150	\$0.00	\$0.00	\$1,103,441.00	\$0.00	\$345,129.00	\$1,448,570.00	\$20,116,698.00	\$21,565,268.00
238160	\$0.00	\$13,315.00	\$0.00	\$1,763.00	\$4,135,251.00	\$4,150,329.00	\$19,336,147.00	\$23,486,476.00
238210	\$0.00	\$4,706,188.00	\$0.00	\$1,615,474.00	\$65,361,016.00	\$71,682,678.00	\$166,528,873.00	\$238,211,552.00
238220	\$25,585.00	\$0.00	\$0.00	\$31,213,920.00	\$49,274,151.00	\$80,513,655.00	\$177,833,720.00	\$258,347,376.00
238290	\$0.00	\$0.00	\$0.00	\$1,387,246.00	\$103,132.00	\$1,490,378.00	\$14,993,539.00	\$16,483,917.00
238310	\$153,107.00	\$0.00	\$0.00	\$202,253.00	\$732,262.00	\$1,087,622.00	\$31,609,613.00	\$32,697,235.00
238320	\$20,994.00	\$5,299.00	\$742,662.00	\$270,015.00	\$846,025.00	\$1,884,995.00	\$8,848,399.00	\$10,733,393.00
238330	\$145,026.00	\$15,210.00	\$0.00	\$0.00	\$292,249.00	\$452,485.00	\$11,851,911.00	\$12,304,396.00
238350	\$87,211.00	\$81,375.00	\$1,102.00	\$12,621,491.00	\$76,459.00	\$12,867,638.00	\$20,691,047.00	\$33,558,685.00
238910	\$585.00	\$1,943,862.00	\$1,099,205.00	\$634,777.00	\$12,174,050.00	\$15,852,479.00	\$46,752,873.00	\$62,605,352.00
238990	\$0.00	\$4,770.00	\$19,677.00	\$166,416.00	\$2,151,753.00	\$2,342,615.00	\$8,561,844.00	\$10,904,459.00
332322	\$0.00	\$0.00	\$1,743,037.00	\$0.00	\$1,053,034.00	\$2,796,071.00	\$21,583,818.00	\$24,379,889.00
423430	\$0.00	\$0.00	\$2,960,044.00	\$0.00	\$0.00	\$2,960,044.00	\$34,540,824.00	\$37,500,868.00
441110	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$157,749,012.00	\$157,749,012.00
517311	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,521,447.00	\$3,521,447.00
517312	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,033,951.00	\$2,033,951.00
518210	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$176,014.00	\$176,014.00
522110	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$439,610,080.00	\$439,610,080.00
531110	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,832,743.00	\$11,832,743.00

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
541211	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$116,500.00	\$116,500.00
541219	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$178,500.00	\$178,500.00
541310	\$0.00	\$6,726,470.00	\$71,681.00	\$0.00	\$0.00	\$6,798,150.00	\$87,173,671.00	\$93,971,821.00
541330	\$10,526.00	\$11,650.00	\$226,468.00	\$0.00	\$1,164,156.00	\$1,412,799.00	\$43,230,575.00	\$44,643,375.00
541511	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,423,324.00	\$1,423,324.00
541611	\$0.00	\$0.00	\$0.00	\$0.00	\$547,165.00	\$547,165.00	\$18,462,156.00	\$19,009,321.00
541612	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$305,000.00	\$305,000.00
541618	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,993,494.00	\$13,993,494.00
541690	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,319,271.00	\$1,319,271.00
541830	\$0.00	\$0.00	\$223,190.00	\$0.00	\$1,763,065.00	\$1,986,255.00	\$3,082,197.00	\$5,068,452.00
541840	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,349,952.00	\$7,349,952.00
561492	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,250,976.00	\$1,250,976.00
561612	\$0.00	\$0.00	\$0.00	\$0.00	\$28,790.00	\$28,790.00	\$0.00	\$28,790.00
561613	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$197,612.00	\$197,612.00
561622	\$66,950.00	\$0.00	\$0.00	\$0.00	\$0.00	\$66,950.00	\$0.00	\$66,950.00
562910	\$0.00	\$8,540.00	\$0.00	\$72,671.00	\$5,084,000.00	\$5,165,211.00	\$14,413,751.00	\$19,578,962.00
611430	\$0.00	\$0.00	\$0.00	\$0.00	\$158,666.00	\$158,666.00	\$180,000.00	\$338,666.00
621330	\$0.00	\$183,989.00	\$0.00	\$0.00	\$0.00	\$183,989.00	\$0.00	\$183,989.00
621340	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$980,760.00	\$980,760.00
621420	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44,271,888.00	\$44,271,888.00
621511	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$602,200.00	\$602,200.00
621610	\$33,901,695.00	\$0.00	\$0.00	\$0.00	\$63,117,348.00	\$97,019,042.00	\$48,902,382.00	\$145,921,425.00
623210	\$0.00	\$0.00	\$9,183,856.00	\$0.00	\$29,751,260.00	\$38,935,116.00	\$321,728,673.00	\$360,663,790.00
624120	\$0.00	\$0.00	\$0.00	\$0.00	\$50,188,491.00	\$50,188,491.00	\$159,099,105.00	\$209,287,597.00

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
624210	\$0.00	\$0.00	\$0.00	\$0.00	\$28,264,018.00	\$28,264,018.00	\$22,657,146.00	\$50,921,164.00
624310	\$0.00	\$0.00	\$0.00	\$0.00	\$1,943,733.00	\$1,943,733.00	\$334,522.00	\$2,278,255.00
Total	\$35,084,771.00	\$16,473,011.00	\$21,385,446.00	\$49,726,396.00	\$321,380,620.00	\$444,050,245.00	\$2,413,069,447.00	\$2,857,119,691.00

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

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
236220	0.00%	0.00%	0.00%	0.00%	0.03%	0.03%	99.97%	100.00%
237310	0.00%	0.00%	5.98%	0.02%	5.33%	11.33%	88.67%	100.00%
238120	2.94%	12.10%	11.34%	6.71%	5.97%	39.05%	60.95%	100.00%
238130	0.00%	0.00%	0.65%	0.00%	0.38%	1.03%	98.97%	100.00%
238140	0.00%	0.00%	0.00%	0.00%	0.70%	0.70%	99.30%	100.00%
238150	0.00%	0.00%	5.12%	0.00%	1.60%	6.72%	93.28%	100.00%
238160	0.00%	0.06%	0.00%	0.01%	17.61%	17.67%	82.33%	100.00%
238210	0.00%	1.98%	0.00%	0.68%	27.44%	30.09%	69.91%	100.00%
238220	0.01%	0.00%	0.00%	12.08%	19.07%	31.16%	68.84%	100.00%
238290	0.00%	0.00%	0.00%	8.42%	0.63%	9.04%	90.96%	100.00%
238310	0.47%	0.00%	0.00%	0.62%	2.24%	3.33%	96.67%	100.00%
238320	0.20%	0.05%	6.92%	2.52%	7.88%	17.56%	82.44%	100.00%
238330	1.18%	0.12%	0.00%	0.00%	2.38%	3.68%	96.32%	100.00%
238350	0.26%	0.24%	0.00%	37.61%	0.23%	38.34%	61.66%	100.00%
238910	0.00%	3.10%	1.76%	1.01%	19.45%	25.32%	74.68%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
238990	0.00%	0.04%	0.18%	1.53%	19.73%	21.48%	78.52%	100.00%
332322	0.00%	0.00%	7.15%	0.00%	4.32%	11.47%	88.53%	100.00%
423430	0.00%	0.00%	7.89%	0.00%	0.00%	7.89%	92.11%	100.00%
441110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
517311	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
517312	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
518210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
522110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
531110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541211	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541219	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	7.16%	0.08%	0.00%	0.00%	7.23%	92.77%	100.00%
541330	0.02%	0.03%	0.51%	0.00%	2.61%	3.16%	96.84%	100.00%
541511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541611	0.00%	0.00%	0.00%	0.00%	2.88%	2.88%	97.12%	100.00%
541612	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541618	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541690	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541830	0.00%	0.00%	4.40%	0.00%	34.79%	39.19%	60.81%	100.00%
541840	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561492	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561612	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
561613	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561622	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
562910	0.00%	0.04%	0.00%	0.37%	25.97%	26.38%	73.62%	100.00%
611430	0.00%	0.00%	0.00%	0.00%	46.85%	46.85%	53.15%	100.00%
621330	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
621340	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621420	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
621610	23.23%	0.00%	0.00%	0.00%	43.25%	66.49%	33.51%	100.00%
623210	0.00%	0.00%	2.55%	0.00%	8.25%	10.80%	89.20%	100.00%
624120	0.00%	0.00%	0.00%	0.00%	23.98%	23.98%	76.02%	100.00%
624210	0.00%	0.00%	0.00%	0.00%	55.51%	55.51%	44.49%	100.00%
624310	0.00%	0.00%	0.00%	0.00%	85.32%	85.32%	14.68%	100.00%
Total	1.23%	0.58%	0.75%	1.74%	11.25%	15.54%	84.46%	100.00%

E. Availability of M/WBEs in The State of Washington's Contracting Markets

1. Methodological Framework

Estimates of the availability of M/WBEs⁷⁹ in the State's market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the agency's contracting activities. These availability estimates are compared to the utilization percentage of dollars received by M/WBEs to examine whether minority- and women-owned firms receive parity.⁸⁰ Availability estimates are also crucial for the State to set narrowly tailored annual and contract goals.

We applied the "custom census" approach with refinements to estimating availability. As recognized by the courts and the National Model Disparity Study Guidelines, ⁸¹ this methodology in general is superior to the other methods for at least four reasons:

• First, it provides an internally consistent and rigorous "apples to apples" comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the

^{79.} There are no reliable statistical data sources to calculate availability of firms owned by veterans. Whether firms owned by military veterans face similar discriminatory barriers is explored in the anecdotal findings in Chapter IV.

^{80.} For our analysis, the term "M/WBE" includes firms that are certified by government agencies and minority- and womenowned firms that are not certified. As discussed in Chapter II, the inclusion of all minority- and female-owned businesses in the pool casts the broad net approved by the courts and recommended by USDOT that supports the remedial nature of the programs. See Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715, 723 (7th Cir. 2007) (The "remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net."). See also https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_D-BE_Program_20141106.pdf.

^{81.} National Disparity Study Guidelines, pp.57-58.

firms in the numerator (e.g., certified M/WBEs or firms that respond to a survey) and the denominator (e.g., registered vendors or the Census Bureaus' County Business Patterns data).

- Second, by examining a comprehensive group of firms, it "casts a broader net" beyond those known to the agency. As recognized by the courts, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. A custom census is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidder's lists, because it seeks out firms in the agency's market areas that have not been able to access its opportunities.
- Third, this approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications, and experience are all elements of business success where discrimination would be manifested. Most courts have held that the results of discrimination which impact factors affecting capacity should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority and women 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. 82
- Fourth, it has been upheld by every court that has reviewed it, including most recently in the successful defense of the Illinois State Toll Highway's DBE program, for which we served as testifying experts.⁸³

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

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

The Master M/WBE Directory combined the results of an exhaustive search for directories and other lists containing information about minority- and women-

^{82.} For a detailed discussion of the role of capacity in disparity studies, see the National Disparity Study Guidelines, Appendix B, "Understanding Capacity."

^{33.} Midwest Fence, Corp. v. U.S. Department of Transportation et al, 840 F.3d 932 (2016); see also Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715 (7th Cir. 2007), cert. denied, 137 S.Ct. 2292 (2017).

owned businesses. The resulting list of minority and women businesses is comprehensive. After compiling the Master M/WBE Directory, we limited the firms we used in our analysis to those operating within the State's constrained product market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company. Hoovers maintains a comprehensive, extensive and regularly updated listing of all firms conducting business. The database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information. We purchased the information from Hoovers for the firms in the NAICS codes located in the State's market area in order to form our custom Dun & Bradstreet/ Hoovers Database. In the initial download, the data from Hoovers simply identify a firm as being minority-owned. 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. Between the set of the special request.

2. Analysis of M/WBE Availability in the State of Washington's Markets

We merged these three databases to form an accurate estimate of M/WBE availability as a percentage of all firms to the State. Tables 4-7 through 4-10 present data on:

- The unweighted availability percentages by race and gender and by NAICS codes for contracts in the State's constrained product markets;
- The weights used to adjust the unweighted numbers, ⁸⁶ and
- The final estimates of the weighted averages of the individual 6-digit level availability estimates in the State's market areas. These weighted availability estimates can be used by the State to set its M/WBE goals for its projects.

^{84.} The variable is labeled: "Is Minority Owned" and values for the variable can be either "yes" or "no".

^{85.} Hoovers was able to provide the detailed information for 75 percent of the firms. We used the available information to estimate the detailed information for the firms where the data was not provided. We assumed the demographic distribution of the missing 25 percent paralleled that of the 75 percent for which we did have information.

^{86.} These weights are equivalent to the share of contract dollars presented in the previous section.

Table 4-7: Unweighted Availability

Note that the second se									
NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total	
236220	1.7%	1.7%	2.5%	1.8%	6.8%	14.5%	85.5%	100.0%	
237310	1.7%	2.5%	1.9%	2.6%	7.1%	15.8%	84.2%	100.0%	
238120	2.6%	3.9%	2.4%	3.1%	7.6%	19.6%	80.4%	100.0%	
238130	1.4%	4.3%	5.8%	1.4%	2.9%	15.9%	84.1%	100.0%	
238140	0.4%	1.4%	0.5%	0.4%	2.4%	5.2%	94.8%	100.0%	
238150	0.9%	0.3%	1.1%	0.4%	7.6%	10.3%	89.7%	100.0%	
238160	0.2%	0.3%	0.4%	0.3%	4.1%	5.3%	94.7%	100.0%	
238210	0.5%	0.6%	0.5%	0.5%	4.6%	6.6%	93.4%	100.0%	
238220	0.3%	0.4%	0.4%	0.7%	3.5%	5.3%	94.7%	100.0%	
238290	0.4%	0.4%	0.6%	3.2%	2.8%	7.5%	92.5%	100.0%	
238310	0.5%	0.7%	0.4%	0.7%	3.1%	5.3%	94.7%	100.0%	
238320	0.5%	0.4%	0.5%	0.3%	3.7%	5.4%	94.6%	100.0%	
238330	0.6%	1.0%	0.4%	0.3%	4.0%	6.2%	93.8%	100.0%	
238350	0.2%	0.3%	0.3%	0.3%	2.2%	3.4%	96.6%	100.0%	
238910	1.0%	1.4%	1.0%	1.4%	5.9%	10.7%	89.3%	100.0%	
238990	0.6%	0.6%	0.6%	0.5%	4.0%	6.3%	93.7%	100.0%	
332322	0.4%	0.4%	1.1%	0.9%	8.9%	11.7%	88.3%	100.0%	
423430	0.8%	0.8%	1.8%	0.8%	4.3%	8.5%	91.5%	100.0%	
441110	0.1%	0.1%	0.2%	0.1%	1.6%	2.2%	97.8%	100.0%	
517311	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
518210	0.9%	0.4%	0.7%	0.5%	10.5%	13.0%	87.0%	100.0%	
522110	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	99.9%	100.0%	
531110	0.1%	0.1%	0.5%	0.1%	3.3%	4.1%	95.9%	100.0%	
541211	0.2%	0.1%	0.2%	0.1%	13.6%	14.1%	85.9%	100.0%	
541219	2.3%	0.0%	4.5%	0.0%	2.3%	9.1%	90.9%	100.0%	
541310	0.8%	1.0%	2.0%	0.7%	9.3%	13.8%	86.2%	100.0%	
541330	1.1%	1.1%	2.7%	1.0%	5.9%	11.8%	88.2%	100.0%	
541511	0.7%	0.7%	1.3%	0.6%	5.1%	8.5%	91.5%	100.0%	
541611	1.1%	0.6%	1.0%	0.6%	12.3%	15.6%	84.4%	100.0%	

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
541612	15.9%	3.2%	12.7%	1.6%	41.3%	74.6%	25.4%	100.0%
541618	0.0%	0.0%	2.2%	1.1%	8.6%	11.8%	88.2%	100.0%
541690	0.3%	0.3%	0.5%	0.3%	6.3%	7.8%	92.2%	100.0%
541830	0.9%	0.8%	2.4%	0.9%	9.1%	14.1%	85.9%	100.0%
541840	0.9%	1.8%	1.3%	0.9%	7.1%	12.1%	87.9%	100.0%
561492	0.0%	0.0%	0.0%	0.0%	22.2%	22.2%	77.8%	100.0%
561612	1.0%	0.6%	0.8%	0.6%	6.9%	9.9%	90.1%	100.0%
561613	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
561622	25.0%	0.0%	0.0%	25.0%	25.0%	75.0%	25.0%	100.0%
562910	2.5%	2.4%	3.7%	4.7%	15.4%	28.7%	71.3%	100.0%
611430	18.8%	1.6%	3.1%	1.6%	39.1%	64.1%	35.9%	100.0%
621330	15.4%	15.4%	23.1%	0.0%	38.5%	92.3%	7.7%	100.0%
621340	12.5%	0.0%	12.5%	0.0%	75.0%	100.0%	0.0%	100.0%
621420	0.0%	0.0%	0.1%	0.0%	7.8%	8.0%	92.0%	100.0%
621511	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
621610	1.1%	0.5%	0.8%	0.6%	13.5%	16.4%	83.6%	100.0%
623210	9.5%	0.0%	14.3%	0.0%	38.1%	61.9%	38.1%	100.0%
624120	0.0%	1.6%	0.0%	0.0%	9.7%	11.3%	88.7%	100.0%
624210	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%	85.0%	100.0%
624310	1.0%	0.7%	1.0%	0.5%	10.2%	13.5%	86.5%	100.0%
TOTAL	0.6%	0.6%	0.8%	0.5%	6.4%	9.0%	91.0%	100.0%

Source: CHA analysis of State of Washington data; Hoovers; CHA Master Directory.

Table 4-8: Table 4.8 Share of The State of Washington's Spending by NAICS Code

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
236220	Commercial and Institutional Building Construction	12.79%
237310	Highway, Street, and Bridge Construction	0.80%
238120	Structural Steel and Precast Concrete Contractors	0.80%
238130	Framing Contractors	0.29%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
238140	Masonry Contractors	0.56%
238150	Glass and Glazing Contractors	0.75%
238160	Roofing Contractors	0.82%
238210	Electrical Contractors and Other Wiring Installation Contractors	8.34%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.04%
238290	Other Building Equipment Contractors	0.58%
238310	Drywall and Insulation Contractors	1.14%
238320	Painting and Wall Covering Contractors	0.38%
238330	Flooring Contractors	0.43%
238350	Finish Carpentry Contractors	1.17%
238910	Site Preparation Contractors	2.19%
238990	All Other Specialty Trade Contractors	0.38%
332322	Sheet Metal Work Manufacturing	0.85%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.31%
441110	New Car Dealers	5.52%
517311	Wired Telecommunications Carriers	0.12%
517312	Wireless Telecommunications Carriers	0.07%
518210	Data Processing, Hosting, and Related Services	0.01%
522110	Commercial Banking	15.39%
531110	Lessors of Residential Buildings and Dwellings	0.41%
541211	Offices of Certified Public Accountants	0.00%
541219	Other Accounting Services	0.01%
541310	Architectural Services	3.29%
541330	Engineering Services	1.56%
541511	Custom Computer Programming Services	0.05%
541611	Administrative Management and General Management Consulting Services	0.67%
541612	Human Resources Consulting Services	0.01%
541618	Other Management Consulting Services	0.49%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
541690	Other Scientific and Technical Consulting Services	0.05%
541830	Media Buying Agencies	0.18%
541840	Media Representatives	0.26%
561492	Court Reporting and Stenotype Services	0.04%
561612	Security Guards and Patrol Services	0.00%
561613	Armored Car Services	0.01%
561622	Locksmiths	0.00%
562910	Remediation Services	0.69%
611430	Professional and Management Development Training	0.01%
621330	Offices of Mental Health Practitioners (except Physicians)	0.01%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0.03%
621420	Outpatient Mental Health and Substance Abuse Centers	1.55%
621511	Medical Laboratories	0.02%
621610	Home Health Care Services	5.11%
623210	Residential Intellectual and Developmental Disability Facilities	12.62%
624120	Services for the Elderly and Persons with Disabilities	7.33%
624210	Community Food Services	1.78%
624310	Vocational Rehabilitation Services	0.08%
Total		100.0%

Table 4-9: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
1.7%	0.7%	2.6%	0.6%	9.6%	15.2%	84.8%	100.0%

Source: CHA analysis of State of Washington data; Hoovers; CHA Master Directory

F. Analysis of Disparity Ratios Between M/WBE Utilization and Availability

To meet the strict scrutiny requirement that a state government must establish that discrimination operates in its market area, we next calculated disparity ratios for total MWBE utilization compared to the total weighted availability of MWBEs, measured in dollars paid, on State-funded contracts. The disparity ratio is calculated by dividing the weighted availability into the utilization rate. If the utilization rate (i.e., the disparity ratio) for a group is less than the availability for that group, we would conclude that the group is underutilized. It is important to note that sometimes unique features of the data (e.g. an unusually high concentration of a group in a very narrow range of NAICS codes; particularly strong performance of one or two firms within a group which is at odds with the performance of most firms in that group; very limited number of observations) might generate disparity ratios which require closer examination.

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 results' significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80 percent of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination. ⁸⁷ 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 ⁸⁸. A more in-depth discussion of statistical significance is provided in Appendix C.

^{87.} 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.").

^{88.} 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.

Substantive and Statistical Significance

- the disparity ratio less or equal to 80% represent disparities that substantively significant. (See Footnote 4 for more information)
- * connotes these values are statistically significant at the 0.05 level (See Appendix C for more information)
- ** connotes these values are statistically significant at the 0.01 level (See Appendix C for more information)
- *** connotes these values are statistically significant at the 0.001 level (See Appendix C for more information)

Table 4-10 presents the calculated disparity ratios.

Table 4-10: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	70.4% [‡]	86.8%	29.3% [‡]	294.5%	116.8%	102.4%	99.6%

Source: CHA analysis of State of Washington data ‡ Indicates substantive significance

The disparity ratio for Native Americans seemed counter-intuitive so we re-examined the final contract data file. We found a high level of concentration of Native American-owned firms in a single NAICS code (NAICS code 238220: Plumbing, Heating, and Air-Conditioning Contractors).

- 63% of all contract dollars going to Native American firms were in this NAICS code; overall State spending in this NAICS code was 9%. If parity existed, 9% of Native American contract dollars would have been in this NAICS code.
- Native American firms received 12% of all contract dollars in this NAICS code; however, Native American received just 1.74% of all State spending.

In addition, we found one firm received 50% (16 of 32) of all contracts going to Native Americans and 68% of all contract dollars received by Native American firms.

In order to understand what happened to the Native American disparity ratio outside of this concentration, we re-ran the analysis without NAICS code 238220. Table 4-11 presents these results.

Table 4-11: Disparity Ratios by Demographic Group, (without NAICS code 238220)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	103.5%	79.1% [‡]	48.0% [‡]	126.9%	120.2%	106.9%	99.1%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

The disparity ratio for Native American firms fell dramatically from 294.5% to 126.9%. We note that Native-American-owned firms might actually be tribally owned and therefore not subject to the same stringent personal net worth and size requirements of firms owned by other racial and ethnic minorities and White women. We postulate that the high utilization of Native American firms, which includes firms owned by Alaska Natives, may result from the different certification standards for tribally-owned firms. Tribes are eligible for special programs that may increase the ability of tribally-owned firms to perform on State contracts. We therefore do not take from these results that Native-American-owned firms are enjoying unfair access to State opportunities.

The State requested that we examine evidence of disparities without contracts for Client Services because these contracts are subject to different State procurement rules and serve a constituent market, rather than the more traditional markets for goods and services provided to the State. Client services are exempt from competitive solicitation pursuant to RCW 39.26.125 and are defined in RCW 39.26.010 (6) as "services provided directly to agency clients including, but not limited to, medical and dental services, employment and training programs, residential care, and subsidized housing." These contracts are also exempt from Initiative 200.

Client Services are comprised of the following NAICS codes: 621610 (Home Health Care Services); 624210 (Community Food Services); 624120 (Services for the Elderly and Persons with Disabilities); 621420 (Outpatient Mental Health and Substance Abuse Centers); 624310 (Vocational Rehabilitation Services); 621340 (Offices of Physical, Occupational and Speech Therapists, and Audiologists); and 621330 (Offices of Mental Health Practitioners (except Physicians)).

Table 4-12 presents the disparity ratio once the NAICS codes that comprise Client Services were dropped from the analysis. The drop in the disparity ratio for White women from 116.8 percent when all industries are combined to 71.3 percent when client services are dropped seems to reflect that women are disproportionately concentrated in the human services sector.

^{89.} See 49 C.F.R. § 26.5 and §26.783(h) and (i).

Table 4-12: Disparity Ratios by Demographic Group (without Client Services)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	2.5%‡	110.1%	29.9%‡	310.3%	79.8%‡	71.3%‡*	105.3%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

‡ Indicates substantive significance

However, the disparity ratio for Hispanic firms deviated from what we have seen in dozens of other studies across the country so we further examined the Final Contract Data File. Our hypothesis was that Hispanic firms might be concentrated in a NAICS code where the Hispanic share of contract dollars exceeded the State's spending in that code and the State's share was relatively high. This hypothesis was correct. NAICS code 238210—Electrical Contractors and Other Wiring Installation Contractors— contained 8.3 percent of all State spending, but 28.6 percent of all Hispanic contract dollars. We re-ran this analysis—this time dropping NAICS code 238210 from the data. Table 4-13 provides the results without NAICS code 238210.

Table 4-13: Disparity Ratios by Demographic Group (without Client Services and NAICS code 238210)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Disparity Ratio	2.52% [‡]	85.87%	30.37% [‡]	322.35%	53.05% [‡]	54.43% ^{‡***}	109.02%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

G. Conclusion

We determined that the State of Washington's geographic market is the boundaries of the State; that its product market consist of many industries'; and that there are disparities of various magnitudes in opportunities for State contracts and subcontracts. Outside the industries with high concentrations of M/WBEs, minority and women entrepreneurs still face challenges in contracting opportunities. That a few firms have overcome systemic barriers to achieve State contracts does not mean that the playing field is level for all firms.

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V. ANALYSIS OF DISPARITIES IN THE WASHINGTON ECONOMY

A. Introduction

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

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid, and credit extended.⁹⁰

This Chapter explores the data and literature relevant to how discrimination in the state of Washington's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the State's contract opportunities. First, we examined the distribution of firms, their sales and their employees across different demographic groups. Next, we analyzed the rates at which M/WBEs in the state of Washington form firms and their earnings from those firms. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

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

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

^{90.} Arrow, Kenneth J., "What Has Economics to say about racial discrimination?" *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

^{91.} See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

vantaged Business Enterprise (DBE) Program. As explained by the Tenth Circuit in upholding the U.S. Department of Transportation's DBE program, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied. 93

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

^{92.} Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al, 840 F.3d 942 (7th Cir. 2016) (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony, including about disparities in the overall Illinois construction industry); see also Builders Association of Greater Chicago v. City of Chicago, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts met compelling interest using this framework).

^{93.} Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1168-1169 (10th Cir. 2000), cert. granted then dismissed as improvidently granted, 532 U.S. 941 (2001) ("Adarand VII").

^{94.} Id

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination. ⁹⁵ The Eighth Circuit Court of Appeals took a "hard look" at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground. ⁹⁶

Likewise, in holding that the DBE program regulations meet strict scrutiny, the court in the *Western States* opinion relied on the "substantial body of statistical and anecdotal materials" considered by Congress, including studies based on Census data that provide "ample" evidence of barriers to the formation of minority-owned firms in the transportation contracting industry. ⁹⁷

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

Every five years, the Census Bureau administers the *Survey of Business Owners* ("SBO") to collect data on particular characteristics of businesses that report to the Internal Revenue Service receipts of \$1,000 or more. ⁹⁸ The 2012 SBO was released in December 2015, so our analysis reflects the most current data available. The

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^{95.} Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868, at *64 (Sept. 8, 2005).

^{96.} Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d. at 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004); see also Adarand VII, 228 F.3d at 1175 (plaintiff has not met its burden "of introducing credible, particularized evidence to rebut the government's initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.").

^{97.} Western States Paving Co., Inc. v. Washington State Department of Transportation, 407 F.3d 983, 993 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

^{98.} See http://www.census.gov/econ/sbo/about.html for more information on the Survey.

SBO collects demographic data on business owners disaggregated into the following groups: 99,100

- Non-Hispanic Blacks
- Latinos
- Non-Hispanic Native Americans
- Non-Hispanic Asians
- Non-Hispanic White Women
- Non-Hispanic White Men
- Firms Equally Owned by Non-Whites and Whites
- Firms Equally Owned by Men and Women
- Firms where the ownership could not be classified
- Publicly-Owned Firms

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

In this section, we examined all industries in the state of Washington. Table 5.1 presents data on the percentage share that each group has of the total of each of the following six business outcomes:

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

^{99.} Race and gender labels reflect the categories used by the Census Bureau.

^{100.} For expository purposes, the adjective "Non-Hispanic" will not be used in this chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Latino.

• The annual payroll of employer firms

Panel A of Table 5.1 presents data for the four basic Non-White racial groups:

- Black
- Latino
- Native American
- Asian

Panel B of Table 5.1 presents data for six types of firm ownership:

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

Categories in the second panel are mutually exclusive. Hence, firms that are Non-White and equally owned by men and women are classified as Non-White and firms that are equally owned by Non-Whites and Whites and equally owned by men and women are classified as equally owned by Non-Whites and Whites. ¹⁰¹

Table 5-1: Percentage Demographic Distribution of Sales and Payroll Data All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribu	ution of Non-W	/hite Firms				
Black	2.62%	0.18%	0.88%	0.13%	0.40%	0.21%
Latino	4.51%	4.91%	2.85%	a		

^{101.} Some of the figures in Panel B may not correspond to the related figures in Panel A because of discrepancies in how the SBO reports the data

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Native American	1.21%	0.16%	0.62%	0.14%	0.26%	0.20%
Asian	8.41%	2.43%	10.04%	2.23%	3.42%	2.12%
Panel B: Distribu	Panel B: Distribution of All Firms					
Non-White	17.14%	7.78%	14.80%	7.56%	5.69%	4.53%
White Women	27.29%	3.28%	15.00%	2.83%	5.69%	3.87%
White Men	39.94%	22.73%	43.95%	22.02%	35.57%	25.21%
Equally Non- White & White	1.59%	0.40%	1.95%	0.36%	0.71%	0.48%
Equally Women & Men	11.56%	4.65%	17.00%	4.37%	7.02%	6.02%
Firms Not Classifiable	2.43%	61.13%	7.20%	62.82%	45.25%	59.85%
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

a. There were many cases when the Census Bureau did not report information because the data was not up to the Bureau's reporting standard or the Bureau reported a range of numbers instead of one value. As a consequence, a percentage could not be calculated and, in these cases, the value will be entered into the table as "---"

Source: CHA calculations from Survey of Business Owners

Since the central issue is the possible disparate treatment of Non-White and White Women firms, Table 5.2 re-aggregates the last four groups— White men; equally Non-White and White; equally women and men; and firms not classifiable— into one group: Not Non-White/Not White Women. ¹⁰² We then present the shares each group has of the six indicators of firm utilization. These data were then used to calculate three disparity ratios, presented in Table 5.2:

• Ratio of sales and receipts share for all firms over the share of total number of all firms.

^{102.} Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

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

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all firms for Black firms is 6.79 percent (as shown in Table 5.3). This is derived by taking the Black share of sales and receipts for all firms (0.18 percent) and dividing it by the Black share of total number of all firms (2.62 percent that are presented in Table 5.2. ¹⁰³ If Black-owned firms earned a share of sales equal to their share of total firms, the disparity would have been 100 percent. An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission's "80 percent" rule that a ratio less than 80 percent presents a *prima facie* case of discrimination. ¹⁰⁴ All disparity ratios for Non-White firms and White Women firms are below this threshold. ¹⁰⁵

Table 5-2: Demographic Distribution of Sales and Payroll Data – Aggregated Groups

All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribu	Panel A: Distribution of Non-White Firms					
Black	2.62%	0.18%	0.88%	0.13%	0.40%	0.21%
Latino	4.52%	4.91%	2.86%			
Native American	1.21%	0.16%	0.62%	0.14%	0.26%	0.20%
Asian	8.41%	2.43%	10.05%	2.23%	3.42%	2.12%

^{103.} Please note: while the tables present values that are rounded to the two-digit level, the actual values are not. Hence, using the example presented above, 0.18 divided by 2.62 equals 6.87; however, with the unrounded versions of the data, the result is 6.79.

^{104. 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.").

^{105.} Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results are not conducted.

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel B: Distribu	Panel B: Distribution of All Firms					
Non-White	17.15%	7.78%	14.81%	7.57%	5.69%	4.53%
White Women	27.30%	3.28%	15.02%	2.83%	5.70%	3.87%
Not Non- White/Not White Women	55.55%	88.94%	70.17%	89.60%	88.61%	91.60%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Table 5-3: Disparity Ratios of Firm Utilization Measures
All Industries, 2012

Panel A: Disparity Ra	Ratio of Sales to Number of Firms (All Firms) tios for Non-White I	Ratio of Sales to Number of Firms (Employer Firms) Firms	Ratio of Payroll to Number of Employer Firms		
Black	6.79%	15.09%	52.40%		
Latino	108.73%				
Native American	12.83%	22.28%	76.14%		
Asian	28.84%	22.20%	61.98%		
Panel B: Disparity Ratios for All Firms					
Non-Whites	45.39%	51.07%	79.65%		
White Women	12.02%	18.85%	67.95%		
Not Non-White/Not White Women	160.09%	127.70%	103.37%		
All Firms	100.0%	100.0%	100.0%		

Source: CHA calculations from Survey of Business Owners

C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2012 - 2016 American Community Survey

As discussed in the beginning of this Chapter, the key question is whether firms owned by Non-Whites and White Women face disparate treatment in the market-place. In this section, we explore this question using the Census Bureau's *American Community Survey* data to address other aspects of this question. One element asks if demographic differences exist in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue of possible variations in the rate of business formation by different demographic groups. One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital or the income level affects one's ability to borrow funds. Consequently, if particular demographic groups receive lower wages and salaries then they would have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.

The American Community Survey ("ACS") Public Use Microdata Sample ("PUMS") is useful in addressing these issues. The ACS is an annual survey of 1 percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for years 2012 through 2016. With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

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

^{106.} For more information about the ACS PUMS, see http://www.census.gov/acs/.

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

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

With respect to the second result of regression analysis, this technique also allowed us to determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates we are 95 percent confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates we are 99 percent confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates we are 99.9% confident that the relationship is different from zero. 107

In the following presentation of results, each sub-section first reports data on the share of a demographic group that forms a business (business formation rates)¹⁰⁸; the probabilities that a demographic group will form a business relative to White men (business formation probabilities); the differences in wages received by a demographic group relative to White men (wage differentials); and the differences

^{107.} Most social scientists do not endorse utilizing a confidence level of less than 95%. (Another way of stating a confidence level of 95% is to state the results are statistically significance at the 0.05 level.) Appendix C explains more about statistical significance.

^{108.} In order to operationalize the concept of business formation, we identified those individuals who are self-employed and then determined what share of a particular group (e.g, Blacks; Hispanics in construction) are self-employed.

in business earnings received by a demographic group relative to White men (business earnings differentials).

1. All Industries Combined in the State of Washington

One method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the U.S. Bureau of the Census' *American Community Survey*. Table 5.4 presents these results. The table indicates that White men have higher business formation rates compared to Non-Whites and White Women. Table 5.5 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender. ¹⁰⁹ This table indicates that Non-Whites and White Women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 2.8 percent for Blacks to 1.0 percent for Others. These results were statistically significant at the 0.001 level for each variable except for Other¹¹⁰.

Another way to measure equity is to examine how the wage and salary incomes and business earnings of particular demographic groups compare to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcome while controlling for other factors, such as education, that might impact outcomes. ¹¹¹ Tables 5.6 and 5.7 present these data on wage and salary incomes and business earnings, respectively. Table 5.6 indicates that Non-whites and White women earn less than White men. The reduction in earnings ranges from 42.3 percent to 13.0 percent and all of the results are statistically significant at the 0.001 level. Table 5.7 indicates that, except for Asians, Non-whites and White women receive business earnings less than White men. The reduction in earnings ranges from 76.4 percent to 15.4 percent. However, only the result for White women is statistically significant.

Table 5-4: Business Formation Rates All Industries, 2012 - 2016

Demographic Group	Business Formation Rates		
Black	2.2%		
Latino	2.3%		
Native American	1.9%		

^{109.} Appendix B provides a "Further Explanation of Probit Regression Analysis."

^{110.} A t-test was performed on the regression coefficients to examine the probability the coefficients were not equal to zero.

^{111.} See Appendix A for more information on multiple regression statistical analysis.

Demographic Group	Business Formation Rates
Asian/Pacific Islander	3.7%
Other	3.6%
White Women	3.7%
Non-White Male	3.3%
White Male	5.7%

Source: CHA calculations from the American Community Survey

Table 5-5: Business Formation Probabilities
Relative to White Men, All Industries, 2012 - 2016

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-2.8%***
Latino	-2.5%***
Native American	-2.6%***
Asian/Pacific Islander	-1.7%***
Other	-1.0%
White Women	-1.7%***

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

Table 5-6: Wage Differentials for Selected Groups Relative to White Men, All Industries, 2012 - 2016

Demographic Group	Wages Relative to White Men (% Change)
Black	-29.1%***
Latino	-13.0%***
Native American	-42.3%***
Asian/Pacific Islander	-19.3%***
Other	-23.2%***
White Women	-31.6%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

Table 5-7: Business Earnings Differentials for Selected Groups
Relative to White Men, All Industries

Demographic Group	Earnings Relative to White Men (% Change)
Black	-33.1%
Latino	-15.4%
Native American	-79.6%
Asian/Pacific Islander	12.4%
Other	-76.4%
White Women	-32.3%***

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

2. The Construction Industry in the State of Washington

Table 5.8 indicates that White men have higher business formation rates compared to Non-Whites and White Women. Table 5.9 indicates that Non-Whites and White Women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 9.5 percent to 2.7 percent. These results were statistically significant for Latinos, Blacks, and Asians. Table 5.10 indicates that wage and salary income for Non-whites and White women earn less than White men. The reduction in earnings range from 53.7 percent to 12.0 percent and all of the results are sta-

tistically significant. Table 5.11 indicates that Asians and White women receive business earnings less than White men. The reduction in earnings ranges from 66.0 percent to 14.9 percent. Because of limited sample sizes, results could only be estimated for Blacks, Native Americans, and Others. However, only the result for White women was statistically significant.

Table 5-8: Business Formation Rates Construction, 2012 - 2016

Demographic Group	Business Formation Rates
Black	3.3%
Latino	4.3%
Native American	5.6%
Asian/Pacific Islander	6.6%
Other	5.0%
White Women	9.9%
Non-White Male	6.2%
White Male	11.6%

Source: CHA calculations from the American Community Survey

Table 5-9: Business Formation Probability Differentials for Selected Groups Relative to White Men, Construction, 2012 - 2016

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-9.5%**
Latino	-7.2%***
Native American	-5.9%
Asian/Pacific Islander	-5.9%*
Other	-4.4%
White Women	-2.7%

Source: CHA calculations from the American Community Survey

^{***} Indicates statistical significance at the 0.001 level

^{**} Indicates statistical significance at the 0.01 level

^{*} Indicates statistical significance at the 0.05 level

Table 5-10: Wage Differentials for Selected Groups Relative to White Men, Construction, 2012 - 2016

Demographic Group	Wages Relative to White Men (% Change)
Black	-53.7%***
Latino	-12.0%***
Native American	-49.1%***
Asian/Pacific Islander	-16.7%*
Other	-45.5%**
White Women	-49.0%***

Source: CHA calculations from the American Community Survey

Table 5-11: Business Earnings Differentials for Selected Groups Relative to White Men, Construction, 2012 - 2016

Demographic Group	Earnings Relative to White Men (% Change)
Black	(omitted)
Latino	-66.0%
Native American	(omitted)
Asian/Pacific Islander	-27.9%
Other	(omitted)
White Women	-14.9%

Source: CHA calculations from the American Community Survey

3. The Construction-Related Services Industry in the State of Washington

It was difficult to make reliable estimates of business outcomes in this sector because the sample of Blacks, Latinos, Native Americans, Asians, and Others was very small. ¹¹² In some cases, the econometric analysis would not produce any estimates (indicated as "omitted"); in other cases, the results were not

^{***} Indicates statistical significance at the 0.001 level

^{**} Indicates statistical significance at the 0.01 level

^{*} Indicates statistical significance at the 0.05 level

^{112.} The sample numbers were Black (1); Latino (3); Native American (1); Asian (6); and Other (0).

statistically significant, but the result could be attributed to the sample size and not because the underlying hypothesis could not be upheld. Table 5.12 indicates that White men have higher business formation rates compared to Non-Whites and White Women, except for Native Americans. Table 5.13 indicates that Blacks, Asians, and White women are less likely to form businesses compared to similarly situated White men. Table 5.14 indicates that except for Blacks, wage and salary income for Non-whites and White women earn less than White men. The reduction in earnings range from 65.2 percent to 3.2 percent and with the results for Asians, Others, and White women being statistically significant. Table 5.15 indicates that Asians receive business earnings less than White men.

Table 5-12: Business Formation Rates
Construction-Related Services, 2012 - 2016

Demographic Group	Business Formation Rates
Black	1.7%
Latino	4.3%
Native American	19.1%
Asian/Pacific Islander	4.2%
Other	0.0%
White Women	3.7%
Non-White Male	3.9%
White Male	7.6%

Source: CHA calculations from the American Community Survey

Table 5-13: Business Formation Probability Differentials for Selected Groups Relative to White Men, Construction-related Services, 2010 - 2014

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-2.9%
Latino	0.0%
Native American	18.0%
Asian/Pacific Islander	-3.1%
Other	0.0%
White Women	-0.9%

Source: CHA calculations from the American Community Survey

Table 5-14: Wage Differentials for Selected Groups
Relative to White Men, Construction-Related Services, 2012 2016

Demographic Group	Wages Relative to White Men (% Change)
Black	1.0%
Latino	-3.2%
Native American	-3.2%
Asian/Pacific Islander	-14.2%*
Other	-65.2% [*]
White Women	-34.4%***

Source: CHA calculations from the American Community Survey

Table 5-15: Business Earnings Differentials for Selected Groups Relative to White Men, Construction-related Services, 2012 - 2016

Demographic Group	Earnings Relative to White Men (% Change)
Black	(omitted)
Latino	(omitted)
Native American	44.1%
Asian/Pacific Islander	-56.3%
Other	(omitted)
White Women	5.5%

Source: CHA calculations from the American Community Survey

4. Goods in the State of Washington

It was difficult to make reliable estimates of business outcomes in this sector because the sample of Blacks, Native Americans, and Others was very small. ¹¹³ In some cases, the econometric analysis would not produce any estimates (indicated as "omitted"); in other cases, the results were not statistically significant, but the result could be attributed to the sample size and not because the

^{***} Indicates statistical significance at the 0.001 level

^{*} Indicates statistical significance at the 0.05 level

^{113.} The sample numbers were Black (1); Native American (2); and Other (1).

underlying hypothesis could not be upheld. Table 5.16 indicates that White men have higher business formation rates compared to Non-Whites and White Women except for Native Americans and Others. Table 5.17 indicates that, except for Asians, Non-Whites and White women are less likely to form businesses compared to similarly situated White men. Table 5.18 indicates wage and salary income for Non-whites and White women earn less than White men. The reduction in earnings ranges from 36.9 percent to 23.7 percent. Table 5.19 indicates that Blacks, Latinos, White women receive less business earnings than White men.

Table 5-16: Business Formation Rates Goods, 2012 - 2016

Demographic Group	Business Formation Rates
Black	0.3%
Latino	0.8%
Native American	5.1%
Asian/Pacific Islander	6.6%
Other	0.6%
White Women	3.4%
Non-White Male	3.0%
White Male	4.1%

Source: CHA calculations from the American Community Survey

Table 5-17: Business Formation Probabilities Relative to White Men, Goods, 2012 - 2016

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-6.2%*
Latino	-2.6%*
Native American	-0.1%
Asian/Pacific Islander	2.3%*
Other	-0.5%
White Women	-1.0%

Source: CHA calculations from the American Community Survey
* Indicates statistical significance at the 0.05 level

Table 5-18: Wage Differentials for Selected Groups Relative to White Men, Goods, 2012 - 2016

Demographic Group	Wages Relative to White Men (% Change)		
Black	-33.9%***		
Latino	-25.6%***		
Native American	-35.9%**		
Asian/Pacific Islander	-29.5%***		
Other	-23.7%		
White Women	-36.9%***		

Source: CHA calculations from the American Community Survey

Table 5-19: Business Earnings Differentials for Selected Groups Relative to White Men, Goods, 2012 - 2016

Demographic Group	Earnings Relative to White Men (% Change)		
Black	-44.7%		
Latino	-209.0%		
Native American	(omitted)		
Asian/Pacific Islander	83.3%		
Other	(omitted)		
White Women	-26.3%		

Source: CHA calculations from the American Community Survey

5. The Services Industry in State of Washington

Table 5.20 indicates that White men have higher business formation rates compared to Non-Whites and White Women. Table 5.21 indicates that Non-Whites and White Women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 5.2 percent to 1.0 percent. Table 5.22 indicates that wage and salary income for Non-whites and White women earn less than White men. The reduction in earnings ranges from 33.7 percent to 10.1 percent. Table 5.23 indicates that, except for Latinos, Non-whites and White women receive

^{***} Indicates statistical significance at the 0.001 level

^{**} Indicates statistical significance at the 0.01 level

business earnings less than White men. The reduction in earnings range from 74.4 percent to 12.6 percent.

Table 5-20: Business Formation Rates Services, 2012 - 2016

Demographic Group	Business Formation Rates			
Black	2.4%			
Latino	3.1%			
Native American	1.6%			
Asian/Pacific Islander	4.0%			
Other	3.4%			
White Women	4.5%			
Non-White Male	4.0%			
White Male	7.1%			

Source: CHA calculations from the American Community Survey

Table 5-21: Business Formation Probability Differentials for Selected Groups Relative to White Men, Services, 2012 - 2016

Demographic Group	Probability of Forming a Business Relative to White Men		
Black	-3.0%***		
Latino	-1.0%*		
Native American	-5.2%***		
Asian/Pacific Islander	-2.4%***		
Other	-2.1%		
White Women	-1.7%***		

Source: CHA calculations from the American Community Survey

^{***} Indicates statistical significance at the 0.001 level

^{*} Indicates statistical significance at the 0.05 level

Table 5-22: Wage Differentials for Selected Groups Relative to White Men, Services, 2012 - 2016

Demographic Group	Wages Relative to White Men (% Change)		
Black	-25.7%***		
Latino	-10.1%***		
Native American	-33.7%***		
Asian/Pacific Islander	-15.8%***		
Other	-23.6%***		
White Women	-27.1%***		

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

Table 5-23: Business Earnings Differentials for Selected Groups Relative to White Men, Services, 2012 - 2016

Demographic Group	Earnings Relative to White Men (% Change)		
Black	-21.9%		
Latino	3.5%		
Native American	-74.4%		
Asian/Pacific Islander	-12.6%		
Other	-17.7%		
White Women	-28.9%*		

Source: CHA calculations from the American Community Survey
* Indicates statistical significance at the 0.05 level

6. The Information Technology Industry in State of Washington

It was difficult to make reliable estimates of business outcomes in this sector because the sample of Blacks, Latinos, and Others was very small. 114 In some cases, the econometric analysis would not produce any estimates (indicated as "omitted"); in other cases, the results were not statistically significant, but the result could be attributed to the sample size and not because the underlying hypothesis could not be upheld. Table 5.24 indicates that White men have

^{114.} The sample numbers were Black (0); Latino (9); and Other (0).

higher business formation rates compared to Non-Whites and White Women. Table 5.25 indicates that, except for Latinos, Non-Whites and White women are less likely to form businesses compared to similarly situated White men. Table 5.26 indicates, except for Native Americans, wage and salary income for Non-whites and White women earn less than White men. The reduction in earnings ranges from 91.2 percent to 8.0 percent. Table 5.27 indicates that Latinos, Asians, White women receive more business earnings than White men.

Table 5-24: Business Formation Rates Information Technology, 2012 - 2016

Demographic Group	Business Formation Rates			
Black	0.0%			
Latino	3.9%			
Native American	0.0%			
Asian/Pacific Islander	1.1%			
Other	0.0%			
White Women	3.6%			
Non-White Male	2.1%			
White Male	4.6%			

Source: CHA calculations from the American Community Survey

Table 5-25: Business Formation Probability Differentials for Selected Groups Relative to White Men, Information Technology, 2012 - 2016

Demographic Group	Probability of Forming a Business Relative to White Men		
Black	(omitted)		
Latino	0.2%		
Native American	(omitted)		
Asian/Pacific Islander	-2.9%***		
Other	(omitted)		
White Women	-0.6%		

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

Table 5-26: Wage Differentials for Selected Groups
Relative to White Men, Information Technology, 2012 - 2016

Demographic Group	Wages Relative to White Men (% Change)		
Black	-27.9%***		
Latino	-13.0%*		
Native American	0.9%		
Asian/Pacific Islander	-8.0%**		
Other	-91.2%***		
White Women	-28.9%***		

Source: CHA calculations from the American Community Survey

Table 5-27: Business Earnings Differentials for Selected Groups Relative to White Men, Information Technology, 2012 - 2016

Demographic Group	Earnings Relative to White Men (% Change)		
Black	(omitted)		
Latino	144.0%		
Native American	(omitted)		
Asian/Pacific Islander	112.0%***		
Other	(omitted)		
White Women	115.0%		

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. Participants in the anecdotal data collection universally agreed to this fundamental fact. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and women-owned firms, had difficulties obtaining needed working capital to perform on state contracts and subcontracts, as well as expand the capaci-

^{***} Indicates statistical significance at the 0.001 level

^{**} Indicates statistical significance at the 0.01 level

^{*} Indicates statistical significance at the 0.05 level

ties of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There is an extensive body of scholarly work on the relationship between personal wealth and successful entrepreneurship. There is a general consensus that disparities in personal wealth translate into disparities in business creation and ownership. 115

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for 1993, 1998 and 2003. These Surveys of Small Business Finances ("SSBF") are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than white-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive. ¹¹⁶

A recent report to the U.S. Department of Commerce summarizes these Surveys, results from the Kauffman Firm Survey, ¹¹⁷ data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program ¹¹⁸ and additional extensive research on the effects of discrimination on opportunities for MBEs. The most comprehensive report of its kind, "Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs," found that

Low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner's wealth can be invested directly in the business, used as collateral to obtain business loans or use to acquire other businesses.... [T]he largest single actor explaining racial disparities in business creation rates are differences in asset levels." 119

^{115.} See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," Journal of Political Economy, (1989); Evans, David S. and Leighton, Linda "Some empirical aspects of entrepreneurship," American Economic Review, (1989).

^{116.} See Blanchflower, D. G., Levine. P. and Zimmerman, D., "Discrimination In The Small Business Credit Market," Review of Economics and Statistics, (2003); Cavalluzzo, K. S. and Cavalluzzo, L. C. "Market structure and discrimination, the case of small businesses," Journal of Money, Credit, and Banking, (1998)

 $^{117. \}quad http://www.kauffman.org/^/media/kauffman_org/research\%20 reports\%20 and\%20 covers/2013/06/kauffman firms urvey2013.pdf.$

 $^{118. \}quad http://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/sba-loan-programs/real-estate-and-eq. \\$

^{119.} Fairlie, R. W. and Robb, A., "Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs," U.S. Department of Commerce, Minority Business Development Agency, 2010, pp. 22-23.

Some of the key findings of the Report include:

- Minority-owned firms are less likely to receive loans than non-minority owned firms regardless of firm size. According to an analysis of data from the Survey of Small Business Finances, for firms with gross receipts over \$500,000, 52 percent of non-minority-owned firms received loans compared to 41 percent of minority-owned firms.
- When minority-owned firms do receive financing, it is for less money and at a
 higher interest rate than non-minority-owned firms regardless of the size of
 the firm. Minority-owned firms paid an average of 7.8 percent in interest
 rates for loans compared to 6.4 percent for non-minority-owned firms.
 Among firms with gross receipts under \$500,000, minority-owned firms paid
 an average of 9.1 percent in interest rates compared to 6.9 percent for nonminority-owned firms.
- Minority owned firms are more likely to be denied loans. Among firms with gross receipts under \$500,000, loan denial rates for minority firms were about three times higher, at 42 percent, compared to those of non-minority-owned firm, at 16 percent. For high sales firms, the rates of loan denial were almost twice as high for MBEs as for non-MBEs.
- MBEs pay higher interest rates for business loans. For all firms, MBEs paid 7.8
 percent on average for loans compared with 6.4 percent for non-MBEs. The
 difference was smaller, but still high, between MBES and non-MBEs with high
 sales.
- Minority-owned firms receive smaller equity investments than non-minority owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43 percent of the average of new equity investments in non-minority-owned firms. The differences were even larger for loans received by high sales firms. Yet, venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms. 120
- Disparities in total investments in minority-owned firms compared to those in non-minority owned firms grew after the first year of business operations. According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their firms were about 18 percent lower in the first year of operations compared to those of non-minority-owned firms. This disparity grew in the subsequent three years of operations,

^{120.} See Bates, T. and Bradford, W., "Venture Capital Investment in Minority Business," Journal of Money Credit and Banking 40, 2-3 (2008).

where minorities' investments into their firms were about 36 percent lower compared to those of non-minority-owned firms.

Minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses. ¹²¹

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

E. Evidence of Disparities in Access to Human Capital

There is a strong intergenerational correlation with business ownership. The probability of self-employment is significantly higher among the children of the self-employed. This was evident in the large number of non-M/WBEs in our interview groups who were second even higher generation firms doing business for the market area. This disadvantages minorities, whose earlier generations were denied business ownership through either *de jure* segregation or *de facto* exclusion.

There is evidence that current racial patterns of self-employment are in part determined by racial patterns of self-employment in the previous generation. Black men have been found to face a "triple disadvantage": they are less likely than White men to: 1. Have self-employed fathers; 2. Become self-employed if their fathers were not self-employed; and 3. To follow their fathers into self-employment. Page 123

Intergenerational links are also critical to the success of the businesses that do form. ¹²⁴ Working in a family business leads to more successful firms by new own-

^{121.} Fairlie, R.W. and Robb, A., "Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States", Cambridge: MIT Press, 2008.

^{122.} Fairlie, R W., "The Absence of the African American Owned Business, An Analysis of the Dynamics of Self-Employment," *Journal of Labor Economics*, (1999).

^{123.} Hout, M. and Rosen, H. S., "Self-employment, Family Background, and Race," *Journal of Human Resources* 35, no.4 (2000).

ers. One study found that only 12.6 percent of Black business owners had prior work experiences in a family business as compared to 23.3 percent of White business owners. This creates a cycle of low rates of minority ownership and worse outcomes being passed from one generation to the next, with the corresponding perpetuation of advantages to White-owned firms.

Similarly, unequal access to business networks reinforces exclusionary patterns. The composition and size of business networks are associated with self-employment rates. The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success. MBEs in our interviews reported that they felt excluded from the networks that help to create success in the highway construction industry.

F. Conclusion

The economy-wide data, taken as a whole, paint a picture of systemic and endemic inequalities in the ability of firms owned by minorities for women to have full and fair access to state contracts and associated subcontracts. This evidence supports the conclusion that absent some affirmative state measures, these inequities create disparate impacts on M/WBEs and may render the state a passive participant in overall market-wide discrimination.

^{124.} Fairlie, R.W. and Robb, A., "Why are black-owned businesses less successful than White-owned businesses? The role of families, inheritances, and business human capital," *Journal of Labor Economics*, (2007).

^{125.} Id.

^{126.} Allen, W. D., "Social Networks and Self-Employment," Journal of Socio-Economics 29, no.5 (2000).

^{127.} Increasing MBE Competitiveness through strategic Alliances (Minority Business Development Agency, 2008).

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VI. QUALITATIVE EVIDENCE OF RACE AND GENDER BARRIERS IN THE STATE OF WASHINGTON'S MARKET

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities and the State of Washington. This evidence is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes, as well as the likely efficacy of any race- and gender-neutral remedies employed by the State. As discussed in Chapter II, this type of anecdotal data has been held by the courts to be relevant and probative under the Fourteenth Amendment of whether the State has a "strong basis in evidence" to enact a race- and gender-conscious program, and if so, what narrowly tailored remedies are supportable to reduce the effects of past and current discrimination, and create a level playing field for contract opportunities for all firms.

The Supreme Court has held that anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life." Evidence about discriminatory practices engaged in by prime contractors, agency personnel, and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects. While anecdotal evidence is insufficient standing alone, "[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative." [W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough." 131

^{128.} International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

^{129.} Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1168-1172 (10th Cir. 2000), cert. granted, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001).

^{130.} Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513, 1120, 1530 (10th Cir. 1994) ("Concrete Works II").

There is no requirement that anecdotal testimony be "verified" or corroborated, as befits the role of evidence in legislative decision-making, as opposed to judicial proceedings. "Plaintiff offers no rationale as to why a fact finder could not rely on the State's 'unverified' anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not—indeed cannot—be verified because it 'is nothing more than a witness' narrative of an incident told from the witness' perspective and including the witness' perception." Likewise, the Tenth Circuit held that "Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver's witnesses or to relate their own perceptions on discrimination in the Denver construction industry." 133

To explore this type of anecdotal evidence of possible discrimination against minorities and women in Washington State's geographic and industry markets and the effectiveness of its current race-neutral measures, we conducted public meetings, and business owner and stakeholder interviews, totaling 252 participants. We met with a broad cross section of business owners from the State's geographic and industry markets. Firms ranged in size from large national businesses to established family-owned firms to new start-ups. We sought to explore their experiences in seeking and performing public and private sector prime contracts and subcontracts with the State, other government agencies, and in the private sector. We also elicited recommendations for effective measures to reduce barriers and create equal opportunities, discussed in Chapter III.

Many minority and women owners reported that racism and sexism continue to impede them. Biased perceptions, sexism and workplace or professional harassment remain all too common and constrain M/WBEs' entrepreneurial endeavors.

We also conducted an electronic survey of firms in the Washington State market area about their experiences in obtaining work, marketplace conditions and the State's contracting policies. The results were similar to those of the interviews.

Almost half (45.5%) of M/WBEs reported they still experience barriers to equal contracting opportunities; one-third (33.1%) said their competency was questioned because of their race or gender; almost 25% reported job-related sexual or racial harassment or stereotyping; almost one-fifth (18.0%) reported experiencing discrimination from suppliers or subcontractors because of their race and/or gender; and almost 40% reported less access to business and information.

^{131.} Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895, 926 (11th Cir. 1997).

^{132.} H.B. Rowe Co., Inc. v. Tippett, 615 F.3d 233, 249 (4th Circ. 2010).

^{133.} Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d at 989 (10th Cir. 2003) ("Concrete Works IV"), cert. denied, 540 U.S. 1027 (2003).

A. Business Owner Interviews

The following are summaries of the issues discussed. Quotations are indented and may have been shorted for readability. The statements are representative of the views expressed over the many sessions by many participants.

Many minority and women owners reported that they continue to encounter discriminatory attitudes, stereotypes and negative perceptions of their qualifications, professionalism and capabilities. While sometimes subtle, ¹³⁴ these biases about minorities' and women's lack of competence infect all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. Minorities and women repeatedly discussed their struggles with negative perceptions and attitudes of their capabilities in the business world.

They are very entrenched in their mindset as to because you are a person of color, you don't qualify. Period. No matter your degrees and all the certifications and everything, I have certifications as long as your arm but it does not make a difference.

The threat overall is race and gender sometimes. It's a personal issue. It's the way people were raised.

It's all based off of the race factor.

The old boys' network is real.

At that time, in Seattle, it might as well have had a sign across the door, "Indians need not apply". So, yeah it was the SBA in Seattle told me I was unqualified.

[The Latinos are] good workers, but they have to strive extra hard to beat the other [White] kid.

And so, to me, it's pretty obvious of what the issue is. It depends on what language you speak and what color your skin is.

[You have to work twice as hard and be twice as good to get half as far as a minority owner] in every measurable way.

Because you're minority, no one ascribes competency. Even you might be the best mathematician in that room, but no one looks at you.... [MBEs] are not given the chance to be competent.

Just because you have that label [of MBE certification], some people have a bad view of that program.... They think that you're not as good

^{134.} See, e.g., http://www.sciencedirect.com/science/article/pii/S0191308509000239.

because you are an MBE, "You're only getting work because you're an MBE." I don't know how you get rid of that notion.

I've been made fun of lots of times when I show up [as a woman] and I'm the engineer.

You have to know everything a little bit better and be a little smarter..

.. I'll have a male sitting here, "Oh he's a tough business guy. He's aggressive.", if I'm that way, I'm considered a B-I-, you know what.

I corrected this [government project manager], I said, "You hired my company because we were the best company there. Not because we're woman-owned and not because women do better documentation. Thank you very much."

Women can do the same thing a man does, but they do it in high heels.

It's still very a man's world. It's very hard to even have a woman project manager.... The good ole boys. That definitely still has an issue, I notice in the construction industry, at least over here on this side of the mountains for eastern Washington. It is definitely a White man's world.

It is truly a man's world and a White man's world. And I'm constantly reminded of that.... For a woman to get up there, you really have to work twice as hard.... [there is still a] good ole boys club.

This year ... I'm sitting in a meeting with a major, national construction company highway contractor. I walk in for a project's pre-construction meeting with my operations manager for the field. Who is a male and whose hand do they shake first? All three of them, they shake his hand first. They talk solely to him discussing the project, and that's how that went. And then another gentleman walked in, did the same thing, sat down, said, "I have this project up for bid, and this is what it is." And I basically sat there and then at that point that I just butted in and I was like, "Okay, this is how we're going to [manage the project]." And then they just kind of looked at me, like, oh, she really does know what it looks like.... There are general contractors in the bidding process that would rather not work with a woman if they don't have to. And now with the [White women no longer being eligible for goal credit in the DBE program for WSDOT] ... I think they had a choice not to do that.... Histrionics, they'll use that word on me.... It doesn't happen everywhere and it doesn't happen as much anymore but it still happens.

I've had people outright say because you are a woman, like name calling. The obstacles, it's more subtle than that. To say women don't face discrimination or hardships in construction in this male dominated industry is just silly.... A lot of times it's hard to say, specifically, that that's why.

Some minorities believed that racism is more subtle in the Northwest than other parts of the country.

Just pretend that didn't happen and keep going forward anyways.... People are just so used to being treated that way.

We're probably more prejudice up here [than people admit or recognize].

Here [in the Northwest], it's a little more subversive.

Women often found their business opportunities limited by sexism.

It's more complicated as a woman business owner to invite a group of men out for a good time at a conference than if I were a man inviting a group of men out to have drinks with me after a conference.... That's where business deals are made in my experience. They're happening in the bars after hours, and that is an environment that's just more complicated for women business owners to enter into.

The only time I've been to a strip club was at a conference three years ago in D.C. because my clients and some other vendors decided that's where they wanted to end up.

There's just this sexist barrier around when your networking event is fishing, hunting or golfing.

What made me take the leap? It was the sexism, the glass ceilings, the gatekeeping, the constantly feeling like either me or my female colleagues had to hire a lawyer because of the discrimination. And the more into management I got, the more frustrating it was. I worked for that company for 11 years. It started out with me thinking, "Do I need to get a lawyer?" Because I was pregnant and a manager sent an email saying, "We're not hiring her until after she's had the baby, because I don't think she'll come back to work." But when you're nine months pregnant and your husband's a full-time student and you're the breadwinner, you can't file the lawsuit and be blacklisted in the entire state, right? And so, I had to suck that up. A couple years later we moved to [state]. I got a promotion in that move. And my pay raise was next to nothing. I was there six months. Licensed engineer with a Master's degree, 10 years of experience. Found out I earned 25 cents

an hour more than a CAD tech with a high school diploma. And when I asked the question, I was told that they couldn't do anything right now, because if they made it right, then that would screw everybody else's raise, and everybody's worked hard and I need to wait.... People treat you like a child when you're a woman in construction. And just vicious chiding and treating you like a girl.

You cannot get a break [as a woman].

The most overt discrimination that I had since taking over the company was going to a woman-owned bank and talking to a woman new account manager who looked at my VP's name and said, "Oh, are you here to sign this individual up as the new owner?" Rather than myself, who was sitting right in front of her.

Blacks reported some instances of worksite harassment and bullying.

Nooses on the job, with discriminating against African American firms trying to hire, even African Americans to work on these projects. That's what we've been up against.

We have Black companies and Black workers going out to these job sites, getting bids now. They are being now challenged and also they're being threatened on these jobs after getting the bid on the big apartment complex in Edmond. They went to work doing condominiums and when they showed up for work, [a noose] was waiting for them at work. When they first went to the foreman ... [he] said, "There should've been another knot in it."

it's hard to be my age and Black and not have that kind of experience and racism in this country.... I've had drivers threatened, the n-word used and telling us not to come back to the job sites. I've had that happen. I hesitate to go to certain people and tell them about it because then I'm like, well, if I tell the wrong person, they know the person that threatened me, then what happens? How do you deal with that? You have to kind of deal with it on the street level or do you go to the cops? How do you deal with it and not risk your business not growing? In that instance, I actually did get the police involved.... I just kept it completely above board and said, this is going to be a legal matter and it's going to hurt your pockets if this continues.... It stopped. Little things happened here and there, like things would happen to my truck. When that starts to happen, I have drivers that drive for me that are White. They're seeing this and they're getting

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^{135.} https://www.khq.com/news/police-investigating-noose-found-at-edmonds-job-site/article_d756c1df-c164-5254-b94e-d0f909171bd8.html.

threats and they know why. Like, why would I stay with this guy if this is going to keep happening to me? It's no fault of their own. It's just their own preservation. I have to do extra to keep them onboard. To show them that, hey, I'm going to do what I need to do to make sure you guys are safe and you can go to work every day. My White counterpart does not deal with that.... First, it was just a call threatened to come beat me up at my house. Then, it was threats to my driver. Then, it was the racial slurs. For me, I'm working for this big contractor and I'm thinking, if I go and complain to them, they're going to go like, well, we don't need to deal with either one of you. They don't need us. How do I go about that with keeping that relationship and getting this to stop? I went about it just legally.... it costs a lot of money.... When I approached the main contractor that we're working for, I'm afraid to do this because I don't want you guys to just cut me off and say, well, it might happen to another subprime that's a White contractor that doesn't like me working at the job. I'm outnumbered. Like, no, no, we're going to support you. After that, it's like a slow drop in my hours for them, a slow like, oh sorry we don't have anything today. Even though we're supporting you, but it just keeps less and less. Had I not said anything, I just got to put up with this guy and just face him the old-fashioned way, I would still have more work.... I understand it from their perspective as a business. As a business, I'm going to look down at why deal with that drama if I don't have to. Why have a minority contractor on that's going to handle this with an attorney and a police officer versus someone I can just be guiet and deal with it and just go back to work?

Women also experienced sexual harassment and hostile work environments.

My first journeyman, he would just start coming up on the ladder behind me and like press himself against me or something. He cup grabbed my ass a few times, and I turned him in. And all he was given was a slap on the wrist.

I got an email from my boss saying, I expect payment for your opportunities, pretty much sexual favors.... I started [my] company a couple of months later.... I thought that maybe the only way to get ahead would be to start my own business, but I still find the same struggles.... You go in somewhere. They think [my male employee is] the one in charge.

I went on the job pre-construction meeting and I'm going to say there was probably about six contractors there. I was the woman. "Oh, who's the chick here?"

I am sure that I am not the first woman to invent the ladder rule. You know, and not going up that ladder first with three men standing there and a ladder at my feet.... [I] heard a little bit of chatter at the bottom of the ladder before, "Go first, we'll enjoy the view."

"Here comes that big titted blonde". That's what they'll say, right out loud, in front of everybody. And all the guys will just laugh. And I've got to suck it up and just do my job.... [Even my employees often won't stand up for me.] If I react, that's just going to make me more belittled and petty.

I try to make contacts and sometimes as a woman it turns into being asked out on a date or hit on or touched inappropriately.

If you go into a construction zone, and you got wall-to-wall men construction in concrete, whether it's Mexican, it doesn't matter, but you feel like you're the only woman there. I got a gun with me all the time, all the time.

A common strategy of women owners was to send men to meetings to mitigate sexist perceptions and resistance.

Going on a job site or interacting with [other contractors], in fact, I typically have my male staff do it.

I found it much more effective if I send a man to go do it or for them to handle certain situations and certain conversations.... The communication seems to go more effectively and things can seem to get negotiated and done having them handle it.

This guy just got fed up with me and started talking to my [title], who's a male. I was just like, "This guy does not know and he's not going to sign the contract." So, that's not gonna work for you.

If I send a male to the job site, the reaction that the contractor will have to him or the agency is different than mine. I feel like as a female, I have to be twice as knowledgeable, twice as fast and always on my toes, just totally different than if I sent one of my male engineers.

The general contractor, who shall remain unnamed, meets me and says, "Where is the engineer?" meets [name] and says, "Why are you here at this table?" She said, "Because my stamp is on the drawings."

Yes, I got my white male. I said to my technician out and let him be the forward face when I think it's going to be an issue.

It can cost more money to operate because you are a woman-owned firm with women employees.

One of the big surprises I had early on was that healthcare for women was a lot more expensive and the small group healthcare programs, when you have a lot of female employees, it's a significant, huge business cost. And so, I look at our competitors, who are all men, and I'm like, "Your overhead is just cheaper." I mean, right off the bat, it's more expensive for me to hire women.

Some women felt that the barriers are size and experience rather than gender.

I haven't felt like I haven't gotten work because I am a woman exactly.... For a micro-business to compete with big companies, it is really hard.

I don't feel that being a woman is a real barrier for me [but being Latina is].

If you can just provide better support to small businesses, you are going to address the race and gender disparity.

They don't want to give their work away, they want to keep their own people busy and so it's not a race thing, it's not a female thing, it's a small business thing. Why give work to a small business when you can do it yourself?

Others disagreed.

It's gender and color issues first, and then size.

A White male representative of a trade association rejected the notion that race and gender continue to play a role in the construction industry.

I've been in construction advocacy for 20 years. I have never heard a contractor informally, formally do or say anything that was discriminatory. I never have. A lot of them are my friends.

In addition to exploring the role that race or sex may play in impeding business opportunities, the State asked us to examine whether firms owned by military veterans face similar discriminatory barriers. None reported barriers on the basis of having served in the military. Participants sought the preference for Veteran-Owned Business Enterprise ("VBE") status for White-male owned firms.

Heck no, I don't [find being a VBE to be a hindrance in business]. I'm proud of my service and everything. If they're giving special consideration, I've got friends, it's an advantage to me.

We have won [government] contracts on full and open competition. So, one of the things that I think that Washington State could do would be to have a required set-aside for subcontracting and full open contracting to service-disabled and veteran-owned businesses, as well as considering adding additional points. They do it for other minority

businesses ... all minority businesses get consideration on any city, state, or county contract. So, I would imagine it wouldn't be too tough to extend that courtesy to disabled veteran-owned businesses as well. The other would be opportunities for sole sourcing. I know in the federal law it states if a service-disabled or veteran-owned business is uniquely qualified to perform the services of the contract, that there is no need to go to full and open competition. The contracting officer has the right and the ability to sole source to that company.... Contracting officers are not obligated to look for us.

Being a veteran-owned business doesn't mean nothing, and it should mean something.

Other than to help us maybe increase our percentage on some of those goals [VBE certification] didn't help us get work.

I don't see anything for a veterans, although I was involved in a project in Denver because of my military background. I would like to see more of that on a State level at least for military veterans.

It should be [for anybody who has an honorable discharge].

Veterans like working with other veteran-owned companies.

A general contractor reported good experiences working with VBEs.

We have learned to respect them, we learned to be able to give them work that they can maintain. That's what we use the veteran owned for, not so much as to go out and say "Hey, we're veteran owned, you need to give us business," no, we don't do that.

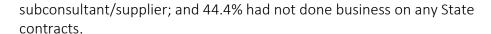
Like some M/WBEs, a VBE reported that certification was a negative.

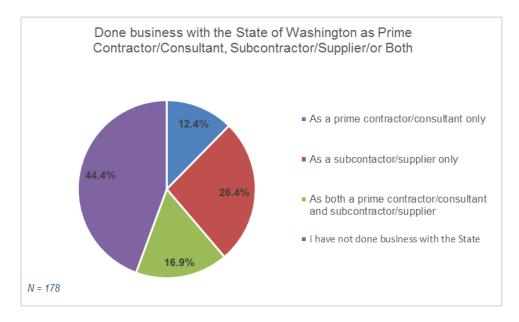
I've heard that comment a lot from Veterans [that certification is a stigma].

B. Anecdotal Surveys

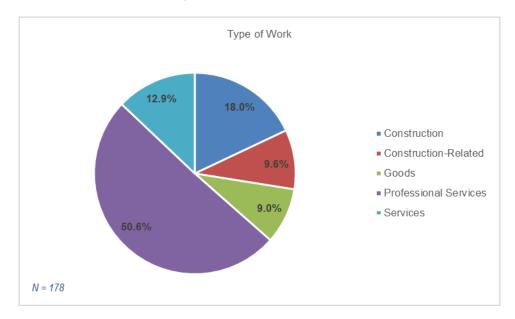
To supplement the in-person interviews, we also conducted an electronic survey of firms on our availability list and among Stakeholder organizations. Two hundred and twenty-four (224) M/WBE/VBE and Non-M/WBE/VBE firms and thirty-two (32) organizations representing minority- and women-owned and Non-minority-women-owned businesses participated.

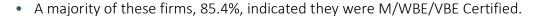
• 12.4% of M/WBEs had worked on Washington State projects only as a prime contractor/consultant; 26.4% had worked only as a subcontractor; 16.9% had worked as both a prime contractor/consultant and as a subcontractor/

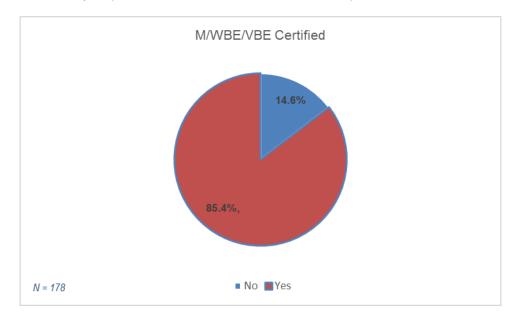




• The type of work reported among these respondents is as follows: 18% Construction, 9.6% Construction-Related Services, 9.0% Goods, 50.6% Professional Services, and 12.9% Services.

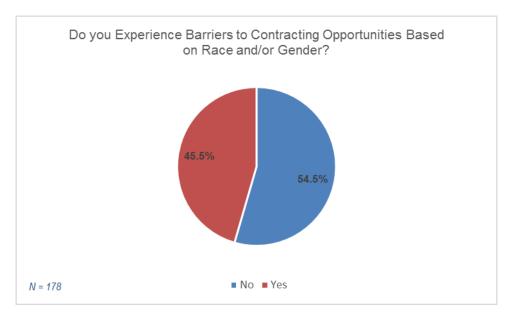




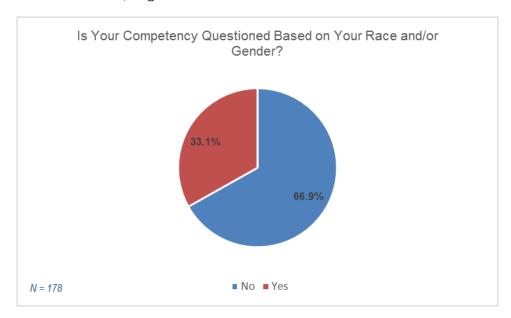


These respondents reported the following experiences.

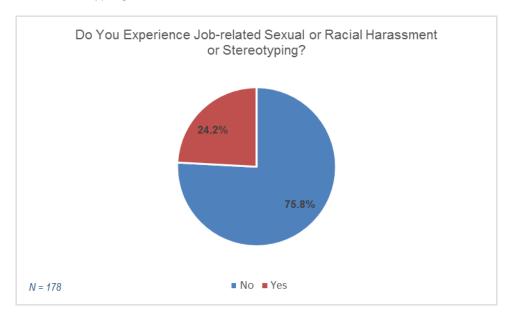
• 45.5% answered yes to the question "Do you experience barriers to contracting opportunities based on race and/or gender?



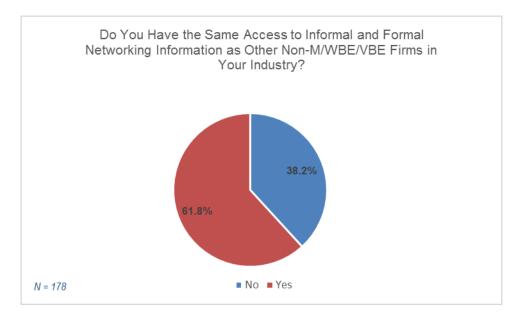
• 33.1% answered yes to the question "Is your competency questioned based on race and/or gender?"



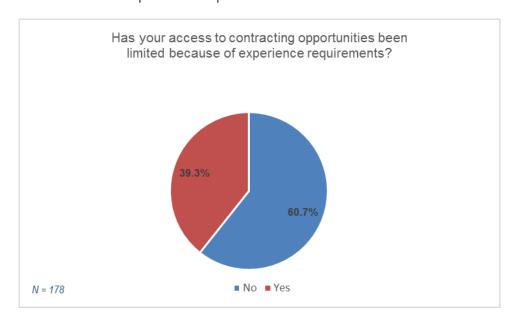
• 24.2 % said they experienced job-related sexual or racial harassment or stereotyping.



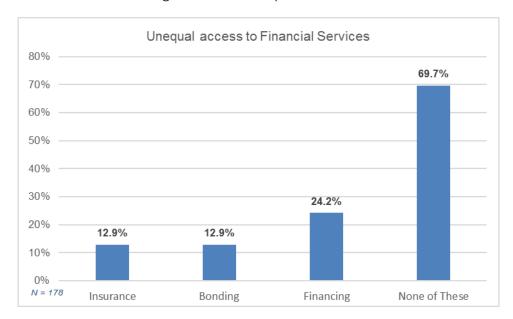
• 38.2% answered "no" to the question, "Do you have access to informal and formal networking information and have the same access to the same information as other non-M/WBE firms in your industry?"



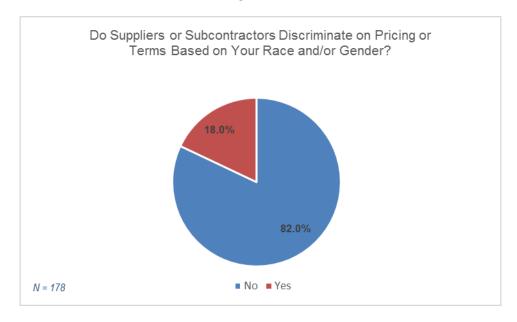
• 39.3% reported their access to contracting opportunities had been limited because of experience requirements.



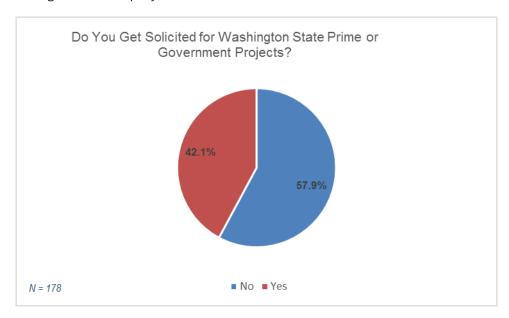
• 12.9% reported they have experienced unequal access to insurance; 12.9% reported they have experienced unequal access to surety bonding services; and a large percentage 24.2%, reported they have experienced unequal access to financing and business capital.



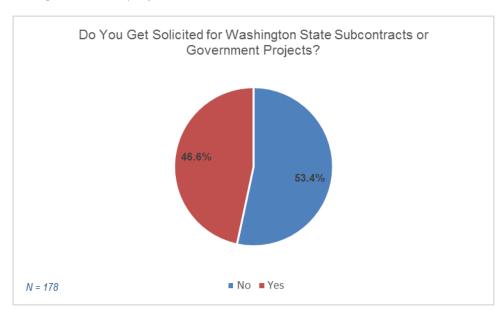
• 18.0% stated they experience discrimination from suppliers or subcontractors because of their race and/or gender.



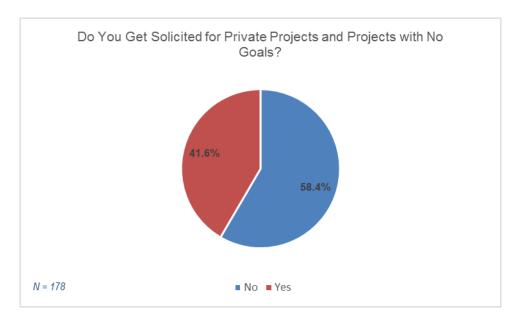
• 57.9% reported they are not solicited for Washington State prime or government projects



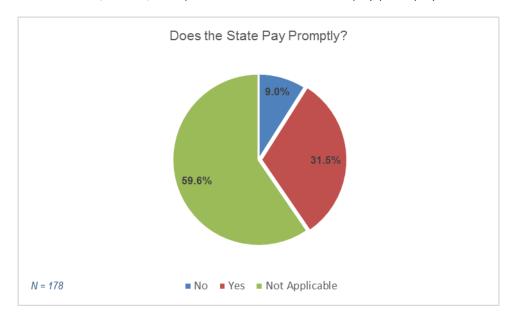
• 53.4% said they are not solicited for Washington State subcontracts or government projects.

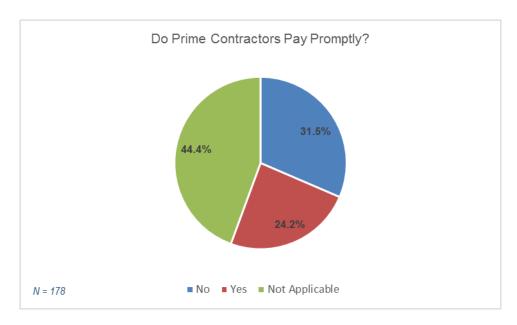


• 58.4% said they are not solicited for Private Projects and Projects with No Goals.

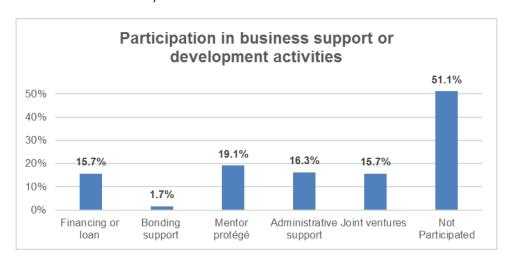


• Many did not have experience with State payments, but of those answering the question, 9% said the State did not pay promptly and an even larger number, 31.5%, said prime contractors did not pay promptly.





Other Business Survey Results:



- 48.9% had accessed some type of supportive services or other program to assist with business development (percentage based on program usage and is not mutually exclusive per respondent):
 - 15.7% had participated in financing or loan programs;
 - 16.3% had participated in administrative support services such as assistance with marketing, estimating, information technology, etc.
 - 19.1% had participated in a mentor-protégé program or relationship; 14.0% had received support services such as assistance with marketing, estimating, information technology, etc.; and
 - 15.7% had joint ventured with another firm.

• Only 1.7% had participated in a bonding support program

Respondents to the survey were also asked to provide comments to open-ended questions. These comments reinforce the tabulated results and the experiences related in the business owner interviews. Many of the comments received related experiences of discriminatory barriers and limited access to contracts. The following are representative of the comments:

[The] assumption is that [I am] not good enough.

Being a minority owned woman business - there is a "good old boy" network and companies winning jobs that are not the main DBE running the business.

Being taken seriously as a qualified and capable respondent.

Contractors don't expect that I can do the job based on my gender.

Discrimination against women in the construction business.

Barriers are subtle, and hidden behind pleasantries. They are pervasive and relentless. They are perpetuated by government employees and none are ever held accountable by Managers.

I am frustrated that as a white, woman-owned firm I'm seen as somehow not suffering from bias and discrimination. Who decided that? Do they want to read the inappropriate emails I've received? Do they want to listen to my stories of being touched by men who I'm trying to do business with? Do they want me to repeat to them the come-ons that "professional" colleagues have dropped on me?... I have personally felt the discriminatory effects of being a woman business owner, and continue to feel them.

It is unspoken, but despite having unique experiences in energy planning, sustainability, pedestrian space design - projects go to other firms.

Being black is often perceived as symbol of limits or a metaphor for "outsider".

Stereotyping is a very common experience for me, people look at the color of my skin and assume I am a certain way.

Typically, once a contractor realizes I am black and a female, the standards for me and my firm will raise to level that seem unreachable for most businesses. Or I will not be given all the resources needed to perform the service while other firms will be given ample resources to perform the service.

C. Stakeholder Survey

We received responses from 32 organizations. Groups representing minority, women, and veteran businesses supported the views that were expressed by participants in the business owner survey about discriminatory attitudes and negative perceptions of competency.

In project meetings it is commonly asked of me and my colleagues who else within our firm "really" is a point of contact (implying a man) or is the decision maker. Perception of competency routinely results in questioning a circumspection of our technical knowledge. This hurdle undermines our legitimacy and value as an expert in our field whether trying to negotiate a change order or solving a problem.

As a woman I have personally had several encounters - some innocuous, just offensive, and a few very scary ones. As a group, harassment occurs implicitly and in insidious ways.

This is a big challenge. In some trades, minority contractors cannot get the certifications to install certain products and materials. They simply are not allowed because the supplier wants to limit competition, which results in whites having the advantage.

D. Conclusion

Consistent with other evidence reported in this Study, the anecdotal interviews and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in the State of Washington's market area. While not definitive proof that the State should consider race- and gender-conscious remedies for these impediments consistent with State law, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with the numerous pieces of statistical evidence assembled, the courts have found to be highly probative of whether the State would be a passive participant in a discriminatory market area without affirmative interventions and whether race-conscious remedies are necessary to address that discrimination.

VII. RECOMMENDATIONS FOR THE STATE OF WASHINGTON'S CONTRACTING EQUITY PROGRAM

The quantitative and qualitative data in this Study provide a thorough examination of the evidence of the experiences of minority- and women-owned business enterprises ("M/WBEs")¹³⁶ in the State of Washington's geographic and industry markets. As required by strict constitutional scrutiny, we analyzed evidence of M/WBEs' utilization by the State as measured by dollars spent. We next estimated the availability of M/WBEs in the State's markets in the aggregate and by detailed industry code. We then compared the State's utilization of M/WBEs to the availability of all ready, willing and able firms in its markets to calculate whether there are disparities between utilization and availability. We also solicited anecdotal (qualitative) evidence from M/WBEs' and veteran-owned business enterprises ("VBEs") regarding obtaining contracts in the public and private sectors.

These findings support the conclusion that minorities and White women do not enjoy equal access to all aspects of State contracting opportunities. While some firms owned by ethnic and racial minorities and White women have successfully obtained State work, barriers remain for most M/WBEs to fair and open markets. Most have not been able to overcome the "market failure" of discrimination. This is manifested both in fewer opportunities for firms that do form, ¹³⁷ lower earnings for those firms, and the depression of the formation of M/WBEs in the first place ¹³⁸. Moreover, minority and women entrepreneurs extensively recounted their experiences with discrimination and a contracting playing field greatly tilted towards incumbents, long established firms and businesses that enjoy the benefits of discriminatory networks and contracting requirements. ¹³⁹ The lack of remedial market intervention in the wake of Initiative 200 perpetuated these results. That a few firms have overcome systemic barriers to achieve State contracts does not mean that the playing field is level

^{136.} Anecdotal information about veteran-owned business enterprises is provided in Chapter III.

^{137.} See Chapter IV.

^{138.} See Chapter V.

^{139.} See Chapter VI.

for all firms. In our judgment, some remedial action is warranted and necessary to ensure non-discrimination in State contracting activities.

Based upon these findings and national best practices for contracting equity programs, we make the following recommendations.

A. Implement an Electronic Data Collection and Monitoring System for All State Agencies

Perhaps the most critical recommendation is to fully implement an electronic data collection and monitoring system for all State agencies. The ability to track M/WBE participation at the highly detailed level of 6-digit NAICS codes for prime vendors and all subcontractors (not just certified firms) is the foundation for any efforts to increase opportunities. While some departments (WSDOT and DES, for example) have begun this process, others have not. This first step must occur to enable other program elements to be targeted to actual needs and barriers. Failure to do so will undermine all other remedial program initiatives.

B. Increase Access to State Contracting Information

Many participants in the business owner interviews had difficulty accessing information about opportunities on State contracts. This included those seeking to work as prime vendors and subcontractors looking to work with prime vendors. While the State has made strides towards making information easier to find and utilize, not all agencies were reported to be at the same level of transparency. Decentralized purchasing exacerbates this problem. Standardization and clear protocols would help all firms to compete. The Department of Enterprise Services ("DES") could address these concerns by examining each contract awarding authority's current policies and providing best practices regarding vendor outreach and management as well as user-friendly access for potential bidders and proposers.

It is important that State agencies conduct pre-bid conferences for larger contracts, especially master contracts. M/WBEs complained of the difficulties in understanding the specifics of projects and identifying prime contractors to whom to market themselves. Pre-bid conferences will help small firms to team with larger businesses or even submit bids or proposals as the prime vendor. Public postings should be done in a timely fashion and include the attendees and the answers to frequently asked questions.

We suggest that winning bidders/proposers and their subcontracting plans, along with other pertinent information, be posted in WEBS. This will allow interested

parties to track the progress of a particular solicitation, as well as obtain information that will assist them to become more competitive in the future.

C. Increase Outreach to M/WBEs

Numerous M/WBEs requested additional outreach efforts to open up State opportunities. The State should consider:

- Seminars on how to do business with the State.
- Networking events with agency personnel responsible for contracting decisions as well as
- with prime vendors to increase familiarity and comfort levels between the parties.
- "Speed dating" between M/WBEs and larger prime contractors.
- Informational seminars where firms in specific industries can learn about State projects and make connections.
- Require registration on WEBS as part of the certification process so that M/ WBEs can be notified in a timely manner of upcoming projects. This will also allow agencies and prime vendors to identify certified firms more easily.
- Require prime bidders to register their interest in a specific solicitation to be considered responsive in order to assist M/WBEs in acquiring contact information for possible subcontracting or partnering arrangements.

To address concerns about a lack of qualified M/WBEs, OMWBE should conduct additional outreach to uncertified minority- and women-owned firms. The Study identified businesses owned by minorities and women that are not M/WBE certified. OMWBE should aggressively pursue these, and any others from additional sources, to encourage applications. The Department of Veterans Affairs ("DVA") should do the same for veterans.

The study revealed that M/WBEs are receiving few opportunities in several industry codes. We suggest that special outreach be conducted to firms in those sectors. Make them aware of the opportunities and connect them with agency staff and other vendors as subcontractors or joint venture partners. Activities could include targeted emails about future contracts, matchmaking events for M/WBEs, prime vendors and State agencies focusing on those industries, and identification of firms that are not currently certified with OMWBE but might be eligible for inclusion.

Agencies with especially low M/WBE utilization should work with OMWBE to perform outreach to ensure minority- and women-owned firms have access to con-

tracts. Agency staff will be the subject matter experts on the needs of their entity and what types of firms are needed for future opportunities. This will also help to overcome any staff concerns about M/WBEs or small firms and increase the competitive pool for agency contracts.

D. Increase Technical Assistance to M/WBEs and Small Firms

OMWBE and DVA currently provide basic information and links to other resources to help certified businesses access technical assistance and supportive services. We suggest the State also provide direct training to certified firms through experienced business consultants. The successful programs that the Washington State Department of Transportation ("WSDOT") currently provide should serve as the model. It will be important to involve the user departments so that training and materials are targeted to specific industries and agency needs. The State should also consider partnering with the Procurement Technical Assistance Agencies ("PTACs") in Washington State to leverage the PTACs' deep knowledge and experience in assisting small firms. Other agencies may also be able to serve as resources supported by State assistance.

E. Lengthen Solicitation Times

Lengthening the time that bidders have to prepare solicitations was recommended by many participants. This will be especially important for larger or more complex projects to facilitate M/WBE participation. While it is easier to go to incumbents or fall back on prior solicitations to save time, haste works against the interests of M/WBEs and small firms.

F. Review Contract Sizes and Scopes

"Unbundling" contracts into smaller segments by dollars, scopes or locations was endorsed by many firm owners as one method to provide fair access to State projects. In conjunction with reduced insurance and bonding requirements, where possible, smaller contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors. It will also enhance their subcontracting opportunities. State contracting personnel need training in splitting contracts into smaller segments without impugning the integrity of the contracting process. Unbundling contracts must be conducted, however, within the constraints of the need, to ensure efficiency and limit the costs to taxpayers.

G. Raise the Direct Buy Limits

There was a general consensus that the \$10,000/\$13,000 limit for "direct buy" (informally procured) contracts is too low. Informal procurement is an excellent method to provide opportunities for M/WBEs and small firms to obtain State work that is low risk for both parties. Smaller contracts can lead to larger projects based on increasing the vendor's experience with State processes and requirements. Informal procurements are also less burdensome for State staff to process, so a higher limit will incentivize them to unbundle contracts into smaller projects. While this procurement method can be abused, the benefits of a higher limit will outweigh the risks. Perhaps an informal scan of other States' limits will provide a baseline for Washington to determine an appropriate higher ceiling.

H. Adopt "Quick Pay" Policies

While the State implements statutorily mandated prompt payment policies for construction contracts, many firms stated that cash flow needs impede their ability to perform as prime firms or even as subcontractors. Paying prime firms more frequently on appropriate contracts—perhaps every two weeks—would assist small prime contractors and subcontractors to be more successful. As a pilot effort, the State could implement quick pay to subcontractors as part of the SBE target market program, discussed below.

I. Review Insurance, Surety Bonding and Experience Requirements

Many business owners and stakeholders, M/WBEs and non-M/WBEs alike, agreed that the State's insurance and qualifications requirements were major impediments to State prime and subcontracting opportunities. Many participants expressed concern that M/WBEs are unable to meet bonding requirements and that specifications require levels of experience unlikely to be met by small firms. These criteria where thought to unfairly protect incumbents and very large companies. The State should review their requirements so that they are no greater than necessary to protect its interests. For example, equivalent experience— especially that gained by working for other government agencies— should be permitted to increase access for small firms and guard against unfair incumbent advantages.

J. Provide Training to State Staff

Business owners, stakeholder representatives and State staff agreed that user departments and other State agencies need training in how to increase diversity in

contracting and in reducing barriers to the participation of small firms. While most State officials we interviewed were willing to, or even enthusiastic about, increasing inclusion, they often lacked the knowledge and tools to do so. The State should provide information on how to conduct outreach in addition to the efforts of OMWBE. Further, training on unconscious bias should be mandated for all personnel with contracting and procurement responsibilities so that everyone understands where unintended barriers may be erected and how to reduce biases that negatively impact M/WBEs.

K. Develop a Pilot Small Business Enterprise Bonding and Financing Program

Access to bonding and working capital are major barriers to the development and success of M/WBEs (and small firms) because traditional underwriting standards have often excluded these businesses. While the State's Linked Deposit programs have been available for many years, business owners were unfamiliar with them and they seem not to have been very effective for M/WBEs.

One approach that has proven to be successful for some governments is to develop an agency-sponsored bonding and financing assistance program for SBEs. This will require an additional certification process for OMWBE (although certified M/W/BEs and VBEs could automatically be eligible). This program goes beyond OMWBE's current provision of information about outside bonding and financing resources, to providing actual assistance to firms through a program consultant. It is not, however, a bonding guarantee program that places the State's credit at risk and does not provide direct subsidies to participants. Rather, this concept brings the commitment of a surety to provide a bond for firms that have successfully completed the training and mentoring program. Other agencies have reported significant increases in certified firms' bonding capacities and ability to take on larger projects. Such an approach could be tried on a pilot basis for DES contracts, starting with smaller construction firms and smaller projects. If successful, it could then be expanded to awarding agencies.

L. Develop a Pilot Small Business Enterprise Target Market

There was significant support for a race- and gender-neutral SBE target market to assist them to work as prime contractors and consultants. If permitted under State law, this program would set aside some smaller, or less complex contracts, for bidding only by SBEs as prime contractors. The State would have to determine the size limits for contracts and the types of contracts to be included. For exam-

ple, maintenance contracts and small consulting contracts might be successfully procured using this method. This approach would be in addition to, not a substitute, for direct buy purchases. This measure would be especially useful for those industries in which prime contractors do not typically utilize subcontractors, such as consulting services, or contracts with few opportunities for subcontracting. On call contracts were pointed to as an excellent vehicle for this target market approach. If implemented on a fully race- and gender-neutral basis, this is a constitutionally acceptable method to increase opportunities for all small firms.

An SBE element could also include additional assistance for the vendors, such as quick pay (e.g., invoicing every two weeks), reduced experience requirements, no holding of retainage, etc.

M. Adopt a Pilot Small Business Enterprise Mentor-Protégé Program

The State should consider adopting a pilot Mentor-Protégé Program for SBEs. We suggest starting with construction firms, as that is the industry in which these programs have been mostly implemented, and for which there are successful examples. An excellent national model is provided in the DBE program regulations at 49 C.F.R. § 26.35 and the Guidelines of Appendix D to Part 26. In addition to the standards provided in Part 26, the General Counsel's Office at USDOT has provided some additional guidance ¹⁴⁰, and USDOT's Office of Small Disadvantaged Business Utilization had adopted a pilot program ¹⁴¹ and sample documents. ¹⁴²

M/WBEs and several large prime contractors welcomed this as a way to increase SBEs' capacities and to move them into non-traditional work. Skill sets such as estimating, understanding of, and adherence to, specifications; billing and scheduling; accounting; safety; marketing; and meeting prequalification standards are possible areas of focus.

The following elements reflect best practices:

- A description of the qualifications of the mentor, including the firm's number
 of years of experience as a construction contractor or consultant; the
 agreement to devote a specified number of hours per month to working with
 the protégé; and the qualifications of the lead individual responsible for
 implementing the development plan.
- A description of the qualifications of the

^{140.} http://www.dot.gov/osdbu/disadvantaged-business-enterprise/official-questions-and-answers.

^{141.} http://www.dot.gov/osdbu/procurement-assistance/mentor-protege-pilot-program.

^{142.} http://cms.dot.gov/small-business/procurement-assitance/mentor-protege program.

- protégé, including the firm's number of years of experience as a construction contractor or consultant; the agreement to devote a specified number of hours per month to working with the mentor; and the qualifications of the SBE owner(s).
- A State-approved written development plan, which clearly sets forth the
 objectives of the parties and their respective roles, the duration of the
 arrangement, a schedule for meetings and development of action plans, and
 the services and resources to be provided by the mentor to the protégé. The
 assistance provided by the mentor must be detailed and directly relevant to
 State work. The development targets should be quantifiable and verifiable—
 such as increased bonding capacity, increased sales, increased areas of work
 specialty or prequalification, etc.— and reflect objectives that increase the
 protégé's capacities and expand its business areas and expertise.
- A long term and specific commitment between the parties, e.g., 12 to 36 months.
- The use of any equipment or equipment rental must be detailed in the plan, and should be further covered by bills of sale, lease agreements, etc., and require prior written approval by the State.
- Any financial assistance by the mentor to the protégé must be subject to prior written approval by the State and must not permit the mentor to assume control of the protégé.
- A fee schedule to cover the direct and indirect cost for services provided by the mentor for specific training and assistance to the protégé.
- The development plan must contain a provision that it may be terminated by mutual consent or by the State if the protégé no longer meets the eligibility standards for SBE certification; either party desires to be removed from the relationship; either party has failed or is unable to meet its obligations under the plan; the protégé is not progressing or is not likely to progress in accordance with the plan; the protégé has reached a satisfactory level of self-sufficiency to compete without resort to the plan; or the plan or its provisions are contrary to legal requirements.
- Submission of quarterly reports by the parties indicating their progress toward each of the plan's goals.
- Regular review by the State of the compliance with the plan and progress towards meeting its objectives. Failure to adhere to the terms of the plan or to make satisfactory progress would be grounds for termination from the Program.

Close monitoring of the program will be critical, but other entities have reported success with such an approved approach. WSDOT is currently implementing a new program, and the rest of the State can learn from WSDOT's experiences.

N. Develop Performance Measures for Success

The State should develop quantitative performance measures for certified firms and the overall success of its race- and gender-neutral approaches to evaluate their effectiveness in reducing the systemic barriers identified by this study. The availability estimates in this study can serve as aspirational targets for overall State contracting. Additional benchmarks might be:

- Increased bidding by certified firms.
- Increased prime contract awards to certified firms.
- Increased diversity of the types of industries in which M/WBEs receive dollars (i.e., reduced market segregation).
- Increased utilization by individual contract awarding authorities.
- Increased "capacity" of certified firms as measured by bonding limits, size of jobs, profitability, etc.
- Utilization of M/WBEs (to be determined by a future disparity study update).

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APPENDIX A:

FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the Report, the 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 μ is the random error term.

The statistical technique seeks to estimate the values of the constant term and the coefficients.

In order to complete the estimation, the set of independent variables must be operationalized. For demographic variables, the estimation used race, gender and age. For industry and occupation variables, the relevant industry and occupation were utilized. For the other variables, age and education were used.

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. Since this Report examined the State of Washington, the analysis was limited to data from the State. The coefficient for the new variable showed the impact of being a member of that race or gender in the State of Washington.

As mentioned in the report, this analysis used the most recent American Community Survey data downloaded from the IPUMS website¹⁴³ The following chart lists the econometric technique and variables used to estimate each model. Because of the very large number of observations in the data set, the residuals of these equations were assumed to be distributed normally.

Model	Econometric Technique	Dependent Variable (DV)	Demographic Variables (D)	Industry/ Occupation Variables (I)	Other Independent Variables (O)
Wage estimation	Ordinary Least Squares	Log wage income	Dummy Variables for Black; Hispanic; Native American; Asian; Other; White Women	Industrial and occupations dummy variables	Age ^a ; Education ^b
Business Income estimation	Ordinary Least Squares	Log business income	Dummy Variables for Black; Hispanic; Native American; Asian; Other; White Women	Industrial and occupations dummy variables	Age; Education
Probabilistic estimate of business formation	Probit	Dummy variable on business formation	Dummy Variables for Black; Hispanic; Native American; Asian; Other; White Women	Industrial and occupations dummy variables	Age; Education

a. The AGE vector captured the basic Mincer age equation: Age; Age^2 , Age^3 , Age^4

b. While Education is presented in the ACS data as discrete values from 1 through 11, our analysis converted this into 11 dummy variables.

^{143.} IPUMS USA, University of Minnesota, www.ipums.org.

APPENDIX B: FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

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

The basic model looks the same:

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

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta 1 * D) + (\beta 2 * I) + (\beta 3 * O) + \mu$$

where C is the constant term; $\beta 1$, $\beta 2$, and $\beta 3$ are coefficients, and μ is the random error term.

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

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

by the amount of the coefficient. ¹⁴⁴ However, in the probit model, the initial coefficients cannot be interpreted this way. One additional step - which can be computed easily by most statistical packages - must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.*, business formation) occurring. For instance, using our previous example of the impact on gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the final transformation of the coefficient of WOMAN was -0.12, we would interpret this to mean that women have a 12% lower probability of forming a business compared to men.

^{144.} The exact interpretation depends upon the functional form of the model.

APPENDIX C: SIGNIFICANCE LEVELS

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

This Report seeks to address the question whether non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

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

For example, an important question facing the State of Washington as it explores whether each racial and ethnic group and White women continue to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (e.g., wages) and the independent variable (e.g. non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say, for example, this analysis determines that non-Whites receive wages that are 35% less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (e.g., non-Whites) and the dependent variable (e.g., wages) – the first sub-question. It is still important to determine how accurate is that estimation, that is, what is the probability the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (e.g., non-Whites earn identical wages compared to White men or non-Whites earn 0% less than White men). This sometimes is called the null

hypothesis. We then calculate a confidence interval to find the probability that the observed relationship (e.g., - 35%) is between 0 and minus that confidence interval. 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.

^{145.} 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:

ADDITIONAL DATA FROM THE UTILIZATION, AVAILABILITY, AND DISPARITY ANALYSES FOR THE STATE OF WASHINGTON

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

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
522110	Commercial Banking	12.61560%	12.61560%
236220	Commercial and Institutional Building Construction	10.78694%	23.40255%
623210	Residential Intellectual and Developmental Disability Facilities	10.35006%	33.75261%
238220	Plumbing, Heating, and Air-Conditioning Contractors	7.73083%	41.48344%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.09423%	48.57767%
624120	Services for the Elderly and Persons with Disabilities	6.00598%	54.58365%
441110	New Car Dealers	4.52696%	59.11061%
621610	Home Health Care Services	4.18754%	63.29816%
541310	Architectural Services	2.73589%	66.03404%
238910	Site Preparation Contractors	1.81266%	67.84670%
624210	Community Food Services	1.46130%	69.30800%
541330	Engineering Services	1.28578%	70.59378%
621420	Outpatient Mental Health and Substance Abuse Centers	1.27048%	71.86426%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.07617%	72.94043%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238350	Finish Carpentry Contractors	1.05245%	73.99289%
238310	Drywall and Insulation Contractors	1.02867%	75.02156%
443142	Electronics Stores	0.82216%	75.84372%
238120	Structural Steel and Precast Concrete Contractors	0.75106%	76.59477%
623990	Other Residential Care Facilities	0.72634%	77.32111%
332322	Sheet Metal Work Manufacturing	0.71002%	78.03113%
237310	Highway, Street, and Bridge Construction	0.69486%	78.72600%
238160	Roofing Contractors	0.68470%	79.41070%
541611	Administrative Management and General Management Consulting Services	0.67501%	80.08571%
236210	Industrial Building Construction	0.66107%	80.74678%
541810	Advertising Agencies	0.65960%	81.40638%
238150	Glass and Glazing Contractors	0.65882%	82.06520%
541930	Translation and Interpretation Services	0.64544%	82.71065%
623110	Nursing Care Facilities (Skilled Nursing Facilities)	0.64422%	83.35487%
562910	Remediation Services	0.61467%	83.96954%
484110	General Freight Trucking, Local	0.60195%	84.57149%
238290	Other Building Equipment Contractors	0.54298%	85.11447%
238140	Masonry Contractors	0.53078%	85.64525%
541618	Other Management Consulting Services	0.52217%	86.16742%
481211	Nonscheduled Chartered Passenger Air Transportation	0.51168%	86.67910%
453210	Office Supplies and Stationery Stores	0.50896%	87.18806%
541511	Custom Computer Programming Services	0.46231%	87.65038%
541612	Human Resources Consulting Services	0.42587%	88.07624%
541512	Computer Systems Design Services	0.41644%	88.49268%
517312	Wired Telecommunications Carriers	0.38932%	88.88201%
238330	Flooring Contractors	0.38461%	89.26662%
624190	Other Individual and Family Services	0.37119%	89.63781%
531110	Lessors of Residential Buildings and Dwellings	0.37028%	90.00809%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
237990	Other Heavy and Civil Engineering Construction	0.35393%	90.36202%
446110	Pharmacies and Drug Stores	0.34179%	90.70380%
238990	All Other Specialty Trade Contractors	0.33981%	91.04361%
238320	Painting and Wall Covering Contractors	0.31420%	91.35781%
238130	Framing Contractors	0.30932%	91.66714%
423460	Ophthalmic Goods Merchant Wholesalers	0.30778%	91.97492%
561612	Security Guards and Patrol Services	0.28753%	92.26245%
623311	Continuing Care Retirement Communities	0.28536%	92.54781%
561730	Landscaping Services	0.24809%	92.79590%
517311	Wired Telecommunications Carriers	0.22895%	93.02485%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.22885%	93.25370%
624310	Vocational Rehabilitation Services	0.21485%	93.46855%
238390	Other Building Finishing Contractors	0.21127%	93.67982%
541840	Media Representatives	0.21092%	93.89075%
423420	Office Equipment Merchant Wholesalers	0.18376%	94.07451%
621111	Offices of Physicians (except Mental Health Specialists)	0.18174%	94.25625%
221310	Water Supply and Irrigation Systems	0.17975%	94.43600%
334290	Other Communications Equipment Manufacturing	0.17676%	94.61276%
541690	Other Scientific and Technical Consulting Services	0.16690%	94.77965%
112990	All Other Animal Production	0.16412%	94.94378%
517919	All Other Telecommunications	0.15970%	95.10348%
561311	Employment Placement Agencies	0.15765%	95.26113%
611430	Professional and Management Development Training	0.15295%	95.41408%
541830	Media Buying Agencies	0.14545%	95.55953%
332321	Metal Window and Door Manufacturing	0.14510%	95.70463%
423440	Other Commercial Equipment Merchant Wholesalers	0.14491%	95.84954%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.13927%	95.98881%
541613	Marketing Consulting Services	0.12858%	96.11739%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
484220	Specialized Freight (except Used Goods) Trucking, Local	0.12817%	96.24556%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	0.12777%	96.37332%
519130	Internet Publishing and Broadcasting and Web Search Portals	0.11872%	96.49204%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.11660%	96.60864%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.10831%	96.71695%
511210	Software Publishers	0.09902%	96.81597%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.09622%	96.91219%
221118	Other Electric Power Generation	0.09487%	97.00706%
333244	Printing Machinery and Equipment Manufacturing	0.09026%	97.09733%
622210	Psychiatric and Substance Abuse Hospitals	0.08609%	97.18342%
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	0.08589%	97.26931%
311412	Frozen Specialty Food Manufacturing	0.08541%	97.35472%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.08464%	97.43936%
541513	Computer Facilities Management Services	0.08047%	97.51983%
237110	Water and Sewer Line and Related Structures Construction	0.08018%	97.60001%
238110	Poured Concrete Foundation and Structure Contractors	0.07974%	97.67975%
541320	Landscape Architectural Services	0.07291%	97.75266%
517210	Wireless Telecommunications Carriers (except Satellite)	0.07017%	97.82283%
623220	Residential Mental Health and Substance Abuse Facilities	0.06980%	97.89263%
561990	All Other Support Services	0.06570%	97.95832%
561110	Office Administrative Services	0.06487%	98.02320%
446199	All Other Health and Personal Care Stores	0.06454%	98.08774%
532111	Passenger Car Rental	0.06267%	98.15041%
444190	Other Building Material Dealers	0.06217%	98.21258%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
811213	Communication Equipment Repair and Maintenance	0.05837%	98.27095%
922120	Police Protection	0.05807%	98.32902%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.05768%	98.38670%
621399	Offices of All Other Miscellaneous Health Practitioners	0.05613%	98.44283%
238340	Tile and Terrazzo Contractors	0.05566%	98.49849%
561440	Collection Agencies	0.04679%	98.54528%
213112	Support Activities for Oil and Gas Operations	0.04585%	98.59113%
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	0.04488%	98.63601%
518210	Data Processing, Hosting, and Related Services	0.04187%	98.67787%
326199	All Other Plastics Product Manufacturing	0.04153%	98.71940%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.03745%	98.75685%
621210	Offices of Dentists	0.03684%	98.79369%
481219	Other Nonscheduled Air Transportation	0.03605%	98.82974%
561492	Court Reporting and Stenotype Services	0.03590%	98.86564%
541380	Testing Laboratories	0.03549%	98.90113%
238170	Siding Contractors	0.03282%	98.93395%
332323	Ornamental and Architectural Metal Work Manufacturing	0.03267%	98.96662%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.03199%	98.99861%
541350	Building Inspection Services	0.03127%	99.02989%
541370	Surveying and Mapping (except Geophysical) Services	0.03107%	99.06095%
561920	Convention and Trade Show Organizers	0.03013%	99.09108%
115210	Support Activities for Animal Production	0.02914%	99.12022%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0.02815%	99.14836%
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0.02613%	99.17450%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
424690	Other Chemical and Allied Products Merchant Wholesalers	0.02571%	99.20021%
423390	Other Construction Material Merchant Wholesalers	0.02439%	99.22460%
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.02379%	99.24839%
221122	Electric Power Distribution	0.02279%	99.27118%
337212	Custom Architectural Woodwork and Millwork Manufacturing	0.02274%	99.29392%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.02219%	99.31610%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0.02148%	99.33758%
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	0.01987%	99.35745%
515120	Television Broadcasting	0.01816%	99.37561%
721110	Hotels (except Casino Hotels) and Motels	0.01807%	99.39368%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.01786%	99.41153%
621511	Medical Laboratories	0.01728%	99.42882%
327212	Other Pressed and Blown Glass and Glassware Manufacturing	0.01678%	99.44560%
541910	Marketing Research and Public Opinion Polling	0.01668%	99.46228%
332311	Prefabricated Metal Building and Component Manufacturing	0.01666%	99.47894%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.01656%	99.49550%
621330	Offices of Mental Health Practitioners (except Physicians)	0.01622%	99.51172%
812990	All Other Personal Services	0.01602%	99.52774%
922140	Correctional Institutions	0.01571%	99.54344%
561720	Janitorial Services	0.01562%	99.55907%
423710	Hardware Merchant Wholesalers	0.01552%	99.57459%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
442291	Window Treatment Stores	0.01548%	99.59007%
445110	Supermarkets and Other Grocery (except Convenience) Stores	0.01521%	99.60529%
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	0.01449%	99.61978%
541519	Other Computer Related Services	0.01359%	99.63337%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.01345%	99.64682%
541430	Graphic Design Services	0.01299%	99.65981%
327310	Cement Manufacturing	0.01234%	99.67216%
322121	Paper (except Newsprint) Mills	0.01234%	99.68450%
541990	All Other Professional, Scientific, and Technical Services	0.01166%	99.69616%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	0.01163%	99.70779%
213111	Drilling Oil and Gas Wells	0.01069%	99.71848%
334517	Irradiation Apparatus Manufacturing	0.01056%	99.72903%
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	0.00984%	99.73887%
423220	Home Furnishing Merchant Wholesalers	0.00966%	99.74853%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.00939%	99.75792%
333316	Photographic and Photocopying Equipment Manufacturing	0.00887%	99.76679%
339940	Office Supplies (except Paper) Manufacturing	0.00875%	99.77554%
236118	Residential Remodelers	0.00832%	99.78387%
327390	Other Concrete Product Manufacturing	0.00829%	99.79215%
327320	Ready-Mix Concrete Manufacturing	0.00811%	99.80027%
339113	Surgical Appliance and Supplies Manufacturing	0.00801%	99.80828%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.00793%	99.81621%
332312	Fabricated Structural Metal Manufacturing	0.00737%	99.82358%
339920	Sporting and Athletic Goods Manufacturing	0.00724%	99.83083%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
561510	Travel Agencies	0.00723%	99.83806%
443141	Household Appliance Stores	0.00648%	99.84454%
336211	Motor Vehicle Body Manufacturing	0.00605%	99.85060%
335312	Motor and Generator Manufacturing	0.00603%	99.85663%
531320	Offices of Real Estate Appraisers	0.00578%	99.86241%
561613	Armored Car Services	0.00567%	99.86808%
314910	Textile Bag and Canvas Mills	0.00542%	99.87350%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.00540%	99.87890%
236116	New Multifamily Housing Construction (except For-Sale Builders)	0.00517%	99.88407%
541219	Other Accounting Services	0.00512%	99.88919%
611110	Elementary and Secondary Schools	0.00445%	99.89364%
327211	Flat Glass Manufacturing	0.00440%	99.89805%
531210	Offices of Real Estate Agents and Brokers	0.00434%	99.90239%
337127	Institutional Furniture Manufacturing	0.00415%	99.90655%
541211	Offices of Certified Public Accountants	0.00410%	99.91065%
339950	Sign Manufacturing	0.00399%	99.91464%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.00361%	99.91825%
561421	Telephone Answering Services	0.00338%	99.92163%
321920	Wood Container and Pallet Manufacturing	0.00335%	99.92498%
337211	Wood Office Furniture Manufacturing	0.00323%	99.92821%
323111	Commercial Printing (except Screen and Books)	0.00316%	99.93137%
424710	Petroleum Bulk Stations and Terminals	0.00307%	99.93444%
237130	Power and Communication Line and Related Structures Construction	0.00300%	99.93743%
333921	Elevator and Moving Stairway Manufacturing	0.00275%	99.94019%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.00261%	99.94280%
211120	Crude Petroleum Extraction	0.00250%	99.94530%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
624229	Other Community Housing Services	0.00247%	99.94777%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.00231%	99.95008%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.00218%	99.95226%
512240	Sound Recording Studios	0.00209%	99.95436%
561622	Locksmiths	0.00192%	99.95628%
541410	Interior Design Services	0.00190%	99.95817%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.00188%	99.96005%
339115	Ophthalmic Goods Manufacturing	0.00173%	99.96177%
813312	Environment, Conservation and Wildlife Organizations	0.00172%	99.96350%
926130	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	0.00171%	99.96521%
335210	Small Electrical Appliance Manufacturing	0.00167%	99.96688%
561790	Other Services to Buildings and Dwellings	0.00156%	99.96844%
111422	Floriculture Production	0.00153%	99.96997%
722310	Food Service Contractors	0.00149%	99.97147%
334210	Telephone Apparatus Manufacturing	0.00149%	99.97296%
324110	Petroleum Refineries	0.00146%	99.97441%
622110	General Medical and Surgical Hospitals	0.00142%	99.97583%
541720	Research and Development in the Social Sciences and Humanities	0.00131%	99.97714%
424910	Farm Supplies Merchant Wholesalers	0.00125%	99.97839%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.00117%	99.97957%
561320	Temporary Help Services	0.00117%	99.98073%
335313	Switchgear and Switchboard Apparatus Manufacturing	0.00116%	99.98190%
325520	Adhesive Manufacturing	0.00114%	99.98304%
488410	Motor Vehicle Towing	0.00107%	99.98411%
541360	Geophysical Surveying and Mapping Services	0.00102%	99.98513%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	0.00099%	99.98612%
562998	All Other Miscellaneous Waste Management Services	0.00095%	99.98707%
484210	Used Household and Office Goods Moving	0.00092%	99.98799%
562111	Solid Waste Collection	0.00090%	99.98889%
321911	Wood Window and Door Manufacturing	0.00070%	99.98959%
333111	Farm Machinery and Equipment Manufacturing	0.00068%	99.99027%
541620	Environmental Consulting Services	0.00068%	99.99094%
316998	All Other Leather Good and Allied Product Manufacturing	0.00067%	99.99161%
313210	Broadwoven Fabric Mills	0.00063%	99.99224%
512110	Motion Picture and Video Production	0.00057%	99.99281%
541420	Industrial Design Services	0.00050%	99.99332%
339999	All Other Miscellaneous Manufacturing	0.00047%	99.99379%
332510	Hardware Manufacturing	0.00046%	99.99425%
811111	General Automotive Repair	0.00039%	99.99464%
321999	All Other Miscellaneous Wood Product Manufacturing	0.00039%	99.99503%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.00038%	99.99542%
334519	Other Measuring and Controlling Device Manufacturing	0.00030%	99.99572%
331222	Steel Wire Drawing	0.00029%	99.99601%
926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	0.00028%	99.99628%
451110	Sporting Goods Stores	0.00025%	99.99654%
926120	Regulation and Administration of Transportation Programs	0.00024%	99.99678%
332313	Plate Work Manufacturing	0.00021%	99.99699%
337122	Nonupholstered Wood Household Furniture Manufacturing	0.00019%	99.99719%
522220	Sales Financing	0.00019%	99.99737%
492110	Couriers and Express Delivery Services	0.00018%	99.99755%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
444220	Nursery, Garden Center, and Farm Supply Stores	0.00017%	99.99772%
333131	Mining Machinery and Equipment Manufacturing	0.00016%	99.99789%
315220	Men's and Boys' Cut and Sew Apparel Manufacturing	0.00016%	99.99805%
115112	Soil Preparation, Planting, and Cultivating	0.00015%	99.99820%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	0.00015%	99.99834%
337110	Wood Kitchen Cabinet and Countertop Manufacturing	0.00014%	99.99848%
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	0.00014%	99.99862%
326191	Plastics Plumbing Fixture Manufacturing	0.00013%	99.99875%
453310	Used Merchandise Stores	0.00012%	99.99887%
325510	Paint and Coating Manufacturing	0.00011%	99.99899%
442210	Floor Covering Stores	0.00011%	99.99910%
488490	Other Support Activities for Road Transportation	0.00011%	99.99921%
442299	All Other Home Furnishings Stores	0.00010%	99.99930%
337920	Blind and Shade Manufacturing	0.00010%	99.99940%
325314	Fertilizer (Mixing Only) Manufacturing	0.00008%	99.99948%
561330	Professional Employer Organizations	0.00008%	99.99955%
312112	Bottled Water Manufacturing	0.00007%	99.99963%
541922	Commercial Photography	0.00006%	99.99969%
444130	Hardware Stores	0.00006%	99.99975%
327991	Cut Stone and Stone Product Manufacturing	0.00005%	99.99980%
442110	Furniture Stores	0.00004%	99.99985%
331318	Other Aluminum Rolling, Drawing, and Extruding	0.00004%	99.99989%
333912	Air and Gas Compressor Manufacturing	0.00004%	99.99993%
212321	Construction Sand and Gravel Mining	0.00004%	99.99996%
562991	Septic Tank and Related Services	0.00003%	99.99999%
813920	Professional Organizations	0.00001%	100.00000%
TOTAL			100.00000%

Source: CHA analysis of State of Washington data

Table D-2: Industry Percentage Distribution of Contracts by Dollars Paid, Prime Contracts

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
522110	Commercial Banking	16.9322%	16.9322%
236220	Commercial and Institutional Building Construction	13.8987%	30.8309%
623210	Residential Intellectual and Developmental Disability Facilities	13.8646%	44.6955%
624120	Services for the Elderly and Persons with Disabilities	8.0610%	52.7565%
441110	New Car Dealers	6.0759%	58.8324%
621610	Home Health Care Services	5.6204%	64.4527%
541310	Architectural Services	3.3542%	67.8070%
238210	Electrical Contractors and Other Wiring Installation Contractors	2.2533%	70.0603%
624210	Community Food Services	1.9613%	72.0216%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.7865%	73.8081%
621420	Outpatient Mental Health and Substance Abuse Centers	1.6543%	75.4624%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.4440%	76.9065%
541330	Engineering Services	1.1707%	78.0772%
623990	Other Residential Care Facilities	0.9730%	79.0502%
238910	Site Preparation Contractors	0.9323%	79.9825%
541810	Advertising Agencies	0.8853%	80.8678%
541930	Translation and Interpretation Services	0.8662%	81.7340%
443142	Electronics Stores	0.8652%	82.5992%
623110	Nursing Care Facilities (Skilled Nursing Facilities)	0.8647%	83.4638%
236210	Industrial Building Construction	0.7884%	84.2523%
484110	General Freight Trucking, Local	0.7317%	84.9840%
541618	Other Management Consulting Services	0.6934%	85.6774%
481211	Nonscheduled Chartered Passenger Air Transportation	0.6868%	86.3642%
453210	Office Supplies and Stationery Stores	0.6831%	87.0473%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541511	Custom Computer Programming Services	0.6099%	87.6572%
541612	Human Resources Consulting Services	0.5716%	88.2288%
541512	Computer Systems Design Services	0.5576%	88.7864%
541611	Administrative Management and General Management Consulting Services	0.5445%	89.3308%
517312	Wired Telecommunications Carriers	0.5225%	89.8534%
624190	Other Individual and Family Services	0.4982%	90.3516%
531110	Lessors of Residential Buildings and Dwellings	0.4970%	90.8485%
446110	Pharmacies and Drug Stores	0.4587%	91.3073%
562910	Remediation Services	0.4372%	91.7444%
423460	Ophthalmic Goods Merchant Wholesalers	0.4131%	92.1575%
623311	Continuing Care Retirement Communities	0.3830%	92.5405%
561612	Security Guards and Patrol Services	0.3784%	92.9189%
238290	Other Building Equipment Contractors	0.3191%	93.2380%
517311	Wired Telecommunications Carriers	0.3073%	93.5453%
237990	Other Heavy and Civil Engineering Construction	0.2902%	93.8355%
541840	Media Representatives	0.2831%	94.1186%
624310	Vocational Rehabilitation Services	0.2638%	94.3824%
621111	Offices of Physicians (except Mental Health Specialists)	0.2439%	94.6263%
423420	Office Equipment Merchant Wholesalers	0.2431%	94.8695%
112990	All Other Animal Production	0.2203%	95.0897%
517919	All Other Telecommunications	0.2143%	95.3041%
561311	Employment Placement Agencies	0.2116%	95.5157%
611430	Professional and Management Development Training	0.2053%	95.7210%
221310	Water Supply and Irrigation Systems	0.1987%	95.9196%
541830	Media Buying Agencies	0.1952%	96.1149%
541690	Other Scientific and Technical Consulting Services	0.1923%	96.3072%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.1869%	96.4941%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
237310	Highway, Street, and Bridge Construction	0.1738%	96.6679%
541613	Marketing Consulting Services	0.1723%	96.8402%
519130	Internet Publishing and Broadcasting and Web Search Portals	0.1593%	96.9996%
238160	Roofing Contractors	0.1448%	97.1443%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.1355%	97.2798%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1328%	97.4125%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.1296%	97.5421%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.1291%	97.6713%
221118	Other Electric Power Generation	0.1273%	97.7986%
333244	Printing Machinery and Equipment Manufacturing	0.1211%	97.9197%
622210	Psychiatric and Substance Abuse Hospitals	0.1155%	98.0353%
311412	Frozen Specialty Food Manufacturing	0.1146%	98.1499%
541513	Computer Facilities Management Services	0.1080%	98.2579%
517210	Wireless Telecommunications Carriers (except Satellite)	0.0942%	98.3521%
561110	Office Administrative Services	0.0871%	98.4392%
623220	Residential Mental Health and Substance Abuse Facilities	0.0854%	98.5246%
532111	Passenger Car Rental	0.0841%	98.6087%
811213	Communication Equipment Repair and Maintenance	0.0783%	98.6871%
922120	Police Protection	0.0779%	98.7650%
446199	All Other Health and Personal Care Stores	0.0777%	98.8427%
621399	Offices of All Other Miscellaneous Health Practitioners	0.0753%	98.9181%
511210	Software Publishers	0.0687%	98.9868%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0637%	99.0505%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
561440	Collection Agencies	0.0628%	99.1133%
213112	Support Activities for Oil and Gas Operations	0.0608%	99.1740%
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	0.0602%	99.2342%
518210	Data Processing, Hosting, and Related Services	0.0555%	99.2897%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.0500%	99.3397%
621210	Offices of Dentists	0.0494%	99.3892%
481219	Other Nonscheduled Air Transportation	0.0484%	99.4375%
561492	Court Reporting and Stenotype Services	0.0482%	99.4857%
561730	Landscaping Services	0.0420%	99.5277%
561920	Convention and Trade Show Organizers	0.0404%	99.5681%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0.0378%	99.6059%
561990	All Other Support Services	0.0335%	99.6394%
221122	Electric Power Distribution	0.0306%	99.6700%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0.0288%	99.6988%
721110	Hotels (except Casino Hotels) and Motels	0.0242%	99.7231%
621511	Medical Laboratories	0.0232%	99.7462%
238310	Drywall and Insulation Contractors	0.0227%	99.7690%
922140	Correctional Institutions	0.0211%	99.7900%
812990	All Other Personal Services	0.0209%	99.8109%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.0209%	99.8318%
541519	Other Computer Related Services	0.0182%	99.8500%
322121	Paper (except Newsprint) Mills	0.0166%	99.8666%
445110	Supermarkets and Other Grocery (except Convenience) Stores	0.0154%	99.8820%
334517	Irradiation Apparatus Manufacturing	0.0142%	99.8961%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
621330	Offices of Mental Health Practitioners (except Physicians)	0.0135%	99.9097%
339113	Surgical Appliance and Supplies Manufacturing	0.0108%	99.9204%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.0106%	99.9311%
561510	Travel Agencies	0.0097%	99.9408%
336211	Motor Vehicle Body Manufacturing	0.0081%	99.9489%
531320	Offices of Real Estate Appraisers	0.0078%	99.9567%
561613	Armored Car Services	0.0076%	99.9643%
541219	Other Accounting Services	0.0069%	99.9712%
531210	Offices of Real Estate Agents and Brokers	0.0058%	99.9770%
561421	Telephone Answering Services	0.0045%	99.9815%
541211	Offices of Certified Public Accountants	0.0045%	99.9860%
424710	Petroleum Bulk Stations and Terminals	0.0041%	99.9901%
561622	Locksmiths	0.0026%	99.9927%
424910	Farm Supplies Merchant Wholesalers	0.0017%	99.9944%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.0016%	99.9959%
561720	Janitorial Services	0.0010%	99.9969%
238990	All Other Specialty Trade Contractors	0.0009%	99.9978%
512110	Motion Picture and Video Production	0.0008%	99.9986%
334519	Other Measuring and Controlling Device Manufacturing	0.0004%	99.9990%
541720	Research and Development in the Social Sciences and Humanities	0.0004%	99.9994%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.0003%	99.9997%
315220	Men's and Boys' Cut and Sew Apparel Manufacturing	0.0002%	99.9999%
541380	Testing Laboratories	0.0001%	100.0000%
522110	Commercial Banking	16.9322%	16.9322%
236220	Commercial and Institutional Building Construction	13.8987%	30.8309%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
623210	Residential Intellectual and Developmental Disability Facilities	13.8646%	44.6955%
624120	Services for the Elderly and Persons with Disabilities	8.0610%	52.7565%
441110	New Car Dealers	6.0759%	58.8324%
621610	Home Health Care Services	5.6204%	64.4527%
541310	Architectural Services	3.3542%	67.8070%
238210	Electrical Contractors and Other Wiring Installation Contractors	2.2533%	70.0603%
624210	Community Food Services	1.9613%	72.0216%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.7865%	73.8081%
621420	Outpatient Mental Health and Substance Abuse Centers	1.6543%	75.4624%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1.4440%	76.9065%
541330	Engineering Services	1.1707%	78.0772%
623990	Other Residential Care Facilities	0.9730%	79.0502%
238910	Site Preparation Contractors	0.9323%	79.9825%
541810	Advertising Agencies	0.8853%	80.8678%
541930	Translation and Interpretation Services	0.8662%	81.7340%
443142	Electronics Stores	0.8652%	82.5992%
623110	Nursing Care Facilities (Skilled Nursing Facilities)	0.8647%	83.4638%
236210	Industrial Building Construction	0.7884%	84.2523%
484110	General Freight Trucking, Local	0.7317%	84.9840%
541618	Other Management Consulting Services	0.6934%	85.6774%
481211	Nonscheduled Chartered Passenger Air Transportation	0.6868%	86.3642%
453210	Office Supplies and Stationery Stores	0.6831%	87.0473%
541511	Custom Computer Programming Services	0.6099%	87.6572%
541612	Human Resources Consulting Services	0.5716%	88.2288%
541512	Computer Systems Design Services	0.5576%	88.7864%
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NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541611	Administrative Management and General Management Consulting Services	0.5445%	89.3308%
517312	Wired Telecommunications Carriers	0.5225%	89.8534%
624190	Other Individual and Family Services	0.4982%	90.3516%
531110	Lessors of Residential Buildings and Dwellings	0.4970%	90.8485%
446110	Pharmacies and Drug Stores	0.4587%	91.3073%
562910	Remediation Services	0.4372%	91.7444%
423460	Ophthalmic Goods Merchant Wholesalers	0.4131%	92.1575%
623311	Continuing Care Retirement Communities	0.3830%	92.5405%
561612	Security Guards and Patrol Services	0.3784%	92.9189%
238290	Other Building Equipment Contractors	0.3191%	93.2380%
517311	Wired Telecommunications Carriers	0.3073%	93.5453%
237990	Other Heavy and Civil Engineering Construction	0.2902%	93.8355%
541840	Media Representatives	0.2831%	94.1186%
624310	Vocational Rehabilitation Services	0.2638%	94.3824%
621111	Offices of Physicians (except Mental Health Specialists)	0.2439%	94.6263%
423420	Office Equipment Merchant Wholesalers	0.2431%	94.8695%
112990	All Other Animal Production	0.2203%	95.0897%
517919	All Other Telecommunications	0.2143%	95.3041%
561311	Employment Placement Agencies	0.2116%	95.5157%
611430	Professional and Management Development Training	0.2053%	95.7210%
221310	Water Supply and Irrigation Systems	0.1987%	95.9196%
541830	Media Buying Agencies	0.1952%	96.1149%
541690	Other Scientific and Technical Consulting Services	0.1923%	96.3072%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.1869%	96.4941%
237310	Highway, Street, and Bridge Construction	0.1738%	96.6679%
541613	Marketing Consulting Services	0.1723%	96.8402%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
519130	Internet Publishing and Broadcasting and Web Search Portals	0.1593%	96.9996%
238160	Roofing Contractors	0.1448%	97.1443%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.1355%	97.2798%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1328%	97.4125%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.1296%	97.5421%
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0.1291%	97.6713%
221118	Other Electric Power Generation	0.1273%	97.7986%
333244	Printing Machinery and Equipment Manufacturing	0.1211%	97.9197%
622210	Psychiatric and Substance Abuse Hospitals	0.1155%	98.0353%
311412	Frozen Specialty Food Manufacturing	0.1146%	98.1499%
541513	Computer Facilities Management Services	0.1080%	98.2579%
517210	Wireless Telecommunications Carriers (except Satellite)	0.0942%	98.3521%
561110	Office Administrative Services	0.0871%	98.4392%
623220	Residential Mental Health and Substance Abuse Facilities	0.0854%	98.5246%
532111	Passenger Car Rental	0.0841%	98.6087%
811213	Communication Equipment Repair and Maintenance	0.0783%	98.6871%
922120	Police Protection	0.0779%	98.7650%
446199	All Other Health and Personal Care Stores	0.0777%	98.8427%
621399	Offices of All Other Miscellaneous Health Practitioners	0.0753%	98.9181%
511210	Software Publishers	0.0687%	98.9868%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0637%	99.0505%
561440	Collection Agencies	0.0628%	99.1133%
213112	Support Activities for Oil and Gas Operations	0.0608%	99.1740%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	0.0602%	99.2342%
518210	Data Processing, Hosting, and Related Services	0.0555%	99.2897%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.0500%	99.3397%
621210	Offices of Dentists	0.0494%	99.3892%
481219	Other Nonscheduled Air Transportation	0.0484%	99.4375%
561492	Court Reporting and Stenotype Services	0.0482%	99.4857%
561730	Landscaping Services	0.0420%	99.5277%
561920	Convention and Trade Show Organizers	0.0404%	99.5681%
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0.0378%	99.6059%
561990	All Other Support Services	0.0335%	99.6394%
221122	Electric Power Distribution	0.0306%	99.6700%
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0.0288%	99.6988%
721110	Hotels (except Casino Hotels) and Motels	0.0242%	99.7231%
621511	Medical Laboratories	0.0232%	99.7462%
238310	Drywall and Insulation Contractors	0.0227%	99.7690%
922140	Correctional Institutions	0.0211%	99.7900%
812990	All Other Personal Services	0.0209%	99.8109%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.0209%	99.8318%
541519	Other Computer Related Services	0.0182%	99.8500%
322121	Paper (except Newsprint) Mills	0.0166%	99.8666%
445110	Supermarkets and Other Grocery (except Convenience) Stores	0.0154%	99.8820%
334517	Irradiation Apparatus Manufacturing	0.0142%	99.8961%
621330	Offices of Mental Health Practitioners (except Physicians)	0.0135%	99.9097%
339113	Surgical Appliance and Supplies Manufacturing	0.0108%	99.9204%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.0106%	99.9311%
561510	Travel Agencies	0.0097%	99.9408%
336211	Motor Vehicle Body Manufacturing	0.0081%	99.9489%
531320	Offices of Real Estate Appraisers	0.0078%	99.9567%
561613	Armored Car Services	0.0076%	99.9643%
541219	Other Accounting Services	0.0069%	99.9712%
531210	Offices of Real Estate Agents and Brokers	0.0058%	99.9770%
561421	Telephone Answering Services	0.0045%	99.9815%
541211	Offices of Certified Public Accountants	0.0045%	99.9860%
424710	Petroleum Bulk Stations and Terminals	0.0041%	99.9901%
561622	Locksmiths	0.0026%	99.9927%
424910	Farm Supplies Merchant Wholesalers	0.0017%	99.9944%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.0016%	99.9959%
561720	Janitorial Services	0.0010%	99.9969%
238990	All Other Specialty Trade Contractors	0.0009%	99.9978%
512110	Motion Picture and Video Production	0.0008%	99.9986%
334519	Other Measuring and Controlling Device Manufacturing	0.0004%	99.9990%
541720	Research and Development in the Social Sciences and Humanities 0.0004%		99.9994%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.0003%	99.9997%
315220	Men's and Boys' Cut and Sew Apparel Manufacturing	0.0002%	99.9999%
541380	Testing Laboratories	0.0001%	100.0000%
TOTAL			100.0000%

Table D-3: Industry Percentage Distribution of Contracts by Dollars Paid,
Subcontracts

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
238220	Plumbing, Heating, and Air-Conditioning Contractors	25.10361%	25.10361%
238210	Electrical Contractors and Other Wiring Installation Contractors	21.24223%	46.34584%
238910	Site Preparation Contractors	4.38550%	50.73134%
238350	Finish Carpentry Contractors	4.12835%	54.85969%
238310	Drywall and Insulation Contractors	3.96871%	58.82840%
238120	Structural Steel and Precast Concrete Contractors	2.94610%	61.77450%
332322	Sheet Metal Work Manufacturing	2.78514%	64.55964%
238150	Glass and Glazing Contractors	2.58429%	67.14393%
238160	Roofing Contractors	2.26271%	69.40664%
237310	Highway, Street, and Bridge Construction	2.21783%	71.62447%
238140	Masonry Contractors	2.08204%	73.70651%
236220	Commercial and Institutional Building Construction	1.69240%	75.39891%
541330	Engineering Services	1.62216%	77.02107%
238330	Flooring Contractors	1.50866%	78.52973%
238990	All Other Specialty Trade Contractors	1.33035%	79.86008%
238320	Painting and Wall Covering Contractors	1.23248%	81.09255%
238130	Framing Contractors	1.21335%	82.30590%
238290	Other Building Equipment Contractors	1.19739%	83.50329%
562910	Remediation Services	1.13344%	84.63673%
541611	Administrative Management and General Management Consulting Services	1.05653%	85.69327%
541310	Architectural Services	0.92878%	86.62205%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.89769%	87.51974%
561730	Landscaping Services	0.85051%	88.37025%
238390	Other Building Finishing Contractors	0.82873%	89.19898%
443142	Electronics Stores	0.69650%	89.89549%
334290	Other Communications Equipment Manufacturing	0.69334%	90.58883%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
332321	Metal Window and Door Manufacturing	0.56917%	91.15800%
423440	Other Commercial Equipment Merchant Wholesalers	0.56842%	91.72642%
237990	Other Heavy and Civil Engineering Construction	0.54011%	92.26653%
811121	Automotive Body, Paint, and Interior Repair and Maintenance	0.50118%	92.76771%
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	0.33691%	93.10463%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.33200%	93.43662%
237110	Water and Sewer Line and Related Structures Construction	0.31450%	93.75112%
238110	Poured Concrete Foundation and Structure Contractors	0.31278%	94.06390%
236210	Industrial Building Construction	0.28886%	94.35276%
541320	Landscape Architectural Services	0.28599%	94.63876%
444190	Other Building Material Dealers	0.24385%	94.88261%
484110	General Freight Trucking, Local	0.22262%	95.10523%
238340	Tile and Terrazzo Contractors	0.21834%	95.32357%
511210	Software Publishers	0.18755%	95.51112%
326199	All Other Plastics Product Manufacturing	0.16291%	95.67403%
561990	All Other Support Services	0.15984%	95.83387%
621420	Outpatient Mental Health and Substance Abuse Centers	0.14874%	95.98261%
541380	Testing Laboratories	0.13890%	96.12151%
238170	Siding Contractors	0.12876%	96.25027%
332323	Ornamental and Architectural Metal Work Manufacturing	0.12816%	96.37843%
221310	Water Supply and Irrigation Systems	0.12443%	96.50286%
541350	Building Inspection Services 0.122		96.62553%
541370	Surveying and Mapping (except Geophysical) Services	0.12186%	96.74739%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars	
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.12094%	96.86834%	
484220	Specialized Freight (except Used Goods) Trucking, Local	96.98307%		
115210	Support Activities for Animal Production	0.11430%	97.09737%	
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0.10251%	97.19989%	
424690	Other Chemical and Allied Products Merchant Wholesalers	0.10087%	97.30076%	
423390	Other Construction Material Merchant Wholesalers	0.09566%	97.39642%	
236115	New Single-Family Housing Construction (except For-Sale Builders)	0.09331%	97.48973%	
541690	Other Scientific and Technical Consulting Services	0.09259%	97.58232%	
337212	Custom Architectural Woodwork and Millwork Manufacturing	0.08918%	97.67150%	
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.08703%	97.75853%	
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.07868%	97.83722%	
623210	Residential Intellectual and Developmental Disability Facilities	0.07854%	97.91576%	
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	0.07794%	97.99370%	
624310	Vocational Rehabilitation Services	0.07172%	98.06543%	
515120	Television Broadcasting	0.07122%	98.13665%	
327212	Other Pressed and Blown Glass and Glassware Manufacturing 0.06583%		98.20248%	
541910	Marketing Research and Public Opinion Polling	0.06543%	98.26791%	
332311	Prefabricated Metal Building and Component Manufacturing 0.06534		98.33325%	
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.06497%	0.06497% 98.39822%	
423710	Hardware Merchant Wholesalers	0.06088%	98.45910%	

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
442291	Window Treatment Stores	0.06074%	98.51984%
561720	Janitorial Services	0.05838%	98.57822%
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	0.05685%	98.63507%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.05275%	98.68783%
541430	Graphic Design Services	0.05097%	98.73879%
327310	Cement Manufacturing	0.04842%	98.78721%
541990	All Other Professional, Scientific, and Technical Services	0.04573%	98.83295%
337215	Showcase, Partition, Shelving, and Locker Manufacturing	0.04561%	98.87856%
213111	Drilling Oil and Gas Wells	0.04194%	98.92050%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.04022%	98.96072%
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	0.03859%	98.99932%
423220	Home Furnishing Merchant Wholesalers	0.03788%	99.03720%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.03685%	99.07405%
333316	Photographic and Photocopying Equipment Manufacturing	0.03479%	99.10884%
339940	Office Supplies (except Paper) Manufacturing	0.03432%	99.14316%
236118	Residential Remodelers	0.03265%	99.17581%
327390	Other Concrete Product Manufacturing	0.03251%	99.20832%
327320	Ready-Mix Concrete Manufacturing	0.03182%	99.24014%
541511	Custom Computer Programming Services	0.03089%	99.27103%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.02896%	99.29999%
332312	Fabricated Structural Metal Manufacturing	0.02893%	99.32891%
339920	Sporting and Athletic Goods Manufacturing	0.02841%	99.35732%
446199	All Other Health and Personal Care Stores	0.02598%	99.38330%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
443141	Household Appliance Stores	0.02543%	99.40873%
623220	Residential Mental Health and Substance Abuse Facilities	0.02416%	99.43289%
621330	Offices of Mental Health Practitioners (except Physicians)	0.02403%	99.45692%
335312	Motor and Generator Manufacturing	0.02367%	99.48059%
561612	Security Guards and Patrol Services	0.02195%	99.50254%
541618	Other Management Consulting Services	0.02169%	99.52422%
314910	Textile Bag and Canvas Mills	0.02128%	99.54550%
424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	0.02119%	99.56669%
236116	New Multifamily Housing Construction (except For-Sale Builders)	0.02027%	99.58696%
611110	Elementary and Secondary Schools	0.01746%	99.60442%
327211	Flat Glass Manufacturing	0.01728%	99.62170%
337127	Institutional Furniture Manufacturing	0.01630%	99.63799%
339950	Sign Manufacturing	0.01566%	99.65366%
445110	Supermarkets and Other Grocery (except Convenience) Stores	0.01465%	99.66831%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.01414%	99.68246%
321920	Wood Container and Pallet Manufacturing	0.01316%	99.69561%
337211	Wood Office Furniture Manufacturing	0.01267%	99.70828%
323111	Commercial Printing (except Screen and Books)	0.01239%	99.72067%
237130	Power and Communication Line and Related Structures Construction	0.01176%	99.73242%
333921	Elevator and Moving Stairway Manufacturing	0.01080%	99.74322%
423420	Office Equipment Merchant Wholesalers	0.01029%	99.75351%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.01023%	99.76374%
211120	Crude Petroleum Extraction	0.00981%	99.77355%
624229	Other Community Housing Services	0.00970%	99.78325%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.00909%	99.79233%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.00906%	99.80139%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.00856%	99.80996%
512240	Sound Recording Studios	0.00822%	99.81817%
541410	Interior Design Services	0.00744%	99.82562%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.00736%	99.83297%
339115	Ophthalmic Goods Manufacturing	0.00677%	99.83974%
813312	Environment, Conservation and Wildlife Organizations 0.00		99.84650%
926130	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	0.00672%	99.85322%
335210	Small Electrical Appliance Manufacturing	0.00656%	99.85977%
561790	Other Services to Buildings and Dwellings	0.00612%	99.86589%
111422	Floriculture Production	0.00601%	99.87190%
722310	Food Service Contractors	0.00586%	99.87776%
334210	Telephone Apparatus Manufacturing	0.00585%	99.88360%
324110	Petroleum Refineries	0.00571%	99.88931%
622110	General Medical and Surgical Hospitals	0.00558%	99.89489%
623990	Other Residential Care Facilities	0.00538%	99.90027%
561320	Temporary Help Services	0.00458%	99.90485%
335313	Switchgear and Switchboard Apparatus Manufacturing 0.00		99.90941%
325520	Adhesive Manufacturing	0.00449%	99.91390%
488410	Motor Vehicle Towing	0.00418%	99.91808%
541512	Computer Systems Design Services	0.00402%	99.92211%
541360	Geophysical Surveying and Mapping Services	0.00401%	99.92611%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541720	Research and Development in the Social Sciences and Humanities	0.00400%	99.93011%
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	0.00388%	99.93399%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.00374%	99.93773%
562998	All Other Miscellaneous Waste Management Services	0.00373%	99.94146%
484210	Used Household and Office Goods Moving	0.00360%	99.94506%
562111	Solid Waste Collection	0.00354%	99.94860%
541211	Offices of Certified Public Accountants	0.00298%	99.95159%
321911	Wood Window and Door Manufacturing	0.00274%	99.95432%
333111	Farm Machinery and Equipment Manufacturing	0.00266%	99.95698%
541620	Environmental Consulting Services	0.00265%	99.95963%
316998	All Other Leather Good and Allied Product Manufacturing	0.00264%	99.96227%
313210	Broadwoven Fabric Mills	0.00245%	99.96472%
213112	Support Activities for Oil and Gas Operations	0.00229%	99.96701%
518210	Data Processing, Hosting, and Related Services	0.00214%	99.96915%
541420	Industrial Design Services	0.00198%	99.97113%
812990	All Other Personal Services	0.00184%	99.97297%
339999	All Other Miscellaneous Manufacturing	0.00184%	99.97480%
332510	Hardware Manufacturing	0.00182%	99.97662%
811111	General Automotive Repair	0.00154%	99.97817%
321999	All Other Miscellaneous Wood Product Manufacturing 0.		99.97969%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.00151%	99.98120%
331222	Steel Wire Drawing	0.00113%	99.98233%
926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	0.00108%	99.98341%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.00105%	99.98446%
451110	Sporting Goods Stores	0.00100%	99.98546%
926120	Regulation and Administration of Transportation Programs	0.00096%	99.98642%
332313	Plate Work Manufacturing	0.00083%	99.98725%
541614	Process, Physical Distribution, and Logistics Consulting Services	0.00075%	99.98800%
337122	Nonupholstered Wood Household Furniture Manufacturing	0.00075%	99.98875%
522220	Sales Financing	0.00074%	99.98949%
492110	Couriers and Express Delivery Services	0.00071%	99.99020%
541613	Marketing Consulting Services	0.00068%	99.99087%
444220	Nursery, Garden Center, and Farm Supply Stores	0.00066%	99.99154%
333131	Mining Machinery and Equipment Manufacturing	0.00064%	99.99217%
115112	Soil Preparation, Planting, and Cultivating	0.00059%	99.99277%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	0.00058%	99.99334%
337110	Wood Kitchen Cabinet and Countertop Manufacturing	0.00054%	99.99388%
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	0.00053%	99.99441%
326191	Plastics Plumbing Fixture Manufacturing	0.00051%	99.99493%
453310	Used Merchandise Stores	0.00048%	99.99541%
325510	Paint and Coating Manufacturing	0.00045%	99.99586%
442210	Floor Covering Stores	0.00044%	99.99630%
488490	Other Support Activities for Road Transportation	0.00044%	99.99673%
442299	All Other Home Furnishings Stores	0.00038%	99.99711%
337920	Blind and Shade Manufacturing	0.00037%	99.99748%
325314	Fertilizer (Mixing Only) Manufacturing	0.00030%	99.99779%
561330	Professional Employer Organizations	0.00030%	99.99809%
312112	Bottled Water Manufacturing	0.00029%	99.99838%

NAICS	NAICS Code Description	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
541922	Commercial Photography	0.00024%	99.99862%
444130	Hardware Stores	0.00023%	99.99886%
327991	Cut Stone and Stone Product Manufacturing	0.00021%	99.99907%
442110	Furniture Stores	0.00017%	99.99924%
541930	Translation and Interpretation Services	0.00016%	99.99940%
331318	Other Aluminum Rolling, Drawing, and Extruding	0.00016%	99.99956%
333912	Air and Gas Compressor Manufacturing 0.0		99.99971%
212321	Construction Sand and Gravel Mining	0.00014%	99.99985%
562991	Septic Tank and Related Services	0.00012%	99.99997%
813920	Professional Organizations	0.00003%	100.00000%
TOTAL			100.00000%

Table D-4: Table D4 Disparity Ratios by Demographic Group, (all NAICS codes)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE
Utilization	1.23%	0.58%	0.75%	1.74%	11.25%	15.54%	84.46%
Weighted Availability	1.7%	0.7%	2.6%	0.6%	9.6%	15.2%	84.8%
Disparity Ratio	70.4% [‡]	86.8%	29.3% [‡]	294.5%	116.8%	102.4%	99.6%

Source: CHA analysis of State of Washington data ‡ Indicates substantive significance

Note: The numbers presented in this table are the rounded (to the two-decimal place) version of the actual numbers. Hence, dividing the presented utilization number by the presented weighted availability number will not yield the presented disparity ratio number. Examining the values for Black-owned firms, 1.23% divided by 1.7% is not 70.4%. The actual value for Black utilization is closer to 1.22797694162124%; the actual value for Black weighted availability is closer to 1.74382370470021%; and the actual disparity ratio is closer to 70.4186402737511%

Table D-5: Disparity Ratios by Demographic Group, (without Client Services)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE
Utilization	0.05%	0.68%	0.89%	2.07%	7.40%	11.09%	88.91%
Weighted Availability	2.00%	0.62%	2.98%	0.67%	9.28%	15.54%	84.46%
Disparity Ratio	2.5% [‡]	110.1%	29.9% [‡]	310.3%	79.8% [‡]	71.3% ^{‡*}	105.3%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

‡ Indicates substantive significance

Table D-6: Disparity Ratios by Demographic Group, (without Client Services and NAICS code 238210)

	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE
Utilization	0.05%	0.53%	0.99%	2.22%	5.20%	9.00%	91.00%
Weighted Availability	2.17%	0.62%	3.25%	0.69%	9.80%	16.53%	83.47%
Disparity Ratio	2.52% [‡]	85.87%	30.37% [‡]	322.35%	53.05% [‡]	54.43% ^{‡***}	109.02%***

Source: CHA analysis of State of Washington data

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

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APPENDIX E:

DISTRIBUTION OF CONTRACT DOLLARS IN THE FINAL CONTRACT DATA FILE GOING TO STATE OF WASHINGTON FIRMS ACROSS COUNTIES

Table E-1: Distribution of Contract Dollars in the Final Contract Data File Going to State of Washington Firms Across Counties

NAICS	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars
King County	46.6838%	46.6838%
Spokane County	14.8693%	61.5531%
Pierce County	9.0231%	70.5762%
Thurston County	6.4898%	77.0660%
Cowlitz County	6.1342%	83.2002%
Snohomish County	6.0112%	89.2114%
Clark County	1.8919%	91.1033%
Benton County	1.7168%	92.8201%
Whatcom County	1.4318%	94.2518%
Kitsap County	1.2452%	95.4971%
Skagit County	1.0418%	96.5389%
Asotin County	0.8241%	97.3630%
Yakima County	0.7789%	98.1419%
Lewis County	0.4044%	98.5463%
Whitman County	0.2362%	98.7826%
Grays Harbor County	0.2212%	99.0037%

NAICS	Pct Total Contract Dollars	Cumulative Pct Total Contract Dollars			
Franklin County	0.1654%	99.1691%			
Walla Walla County	0.1630%	99.3321%			
Island County	0.1285%	99.4606%			
Chelan County	0.1213%	99.5819%			
Grant County	0.1148%	99.6967%			
Mason County	0.1015%	99.7981%			
Clallam County	0.0929%	99.8911%			
Kittitas County	0.0780%	99.9690%			
Stevens County	0.0166%	99.9856%			
Lincoln County	0.0112%	99.9968%			
Okanogan County	0.0031%	99.9999%			
Klickitat County	0.0001%	100.0000%			
TOTAL		100.0000%			

APPENDIX F:

UTILIZATION - DISTRIBUTION STATE OF WASHINGTON CONTRACTS BY AWARDING AUTHORITY

1. Part One: Contracting Authority Distribution of Contracts

Table F-1 presents data on the distribution of contracts across various demographic groups for each contracting authority. It should be read from left to right with the final column always equal to the total number of the contracts that were issued. The MWBE column represents the total share of contracts issued to non-white firms and white women firms combined. The Non-MWBE column represents the share of contracts issued to firms that are not owned by non-whites or white women. Therefore, the MWBE and Non-MWBE columns sum to the total number of the contracts that were issued.

Table F-1: Contracting Authority Distribution of Contracts by Demographic Group

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
Central Washington University (CWU)	0	0	1	5	2	8	52	60
Consolidated Technology Services	0	0	1	0	0	1	1	2
Criminal Justice Training Commission	0	0	0	0	1	1	1	2
Department of Agriculture	0	0	0	0	1	1	0	1

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
Department of Commerce	0	0	0	0	2	2	2	4
Department of Corrections	0	0	0	1	4	5	44	49
Department of Early Learning	0	0	0	0	5	5	3	8
Department of Ecology	1	1	1	1	5	9	19	28
Department of Enterprise Services	6	11	6	18	73	114	1,139	1,253
Department of Fish and Wildlife	0	1	0	2	6	9	35	44
Department of Health	0	0	0	0	0	0	2	2
Department of Labor and Industries	0	0	0	0	1	1	1	2
Department of Licensing	0	0	0	0	0	0	1	1
Department of Retirement Services	0	0	0	0	0	0	2	2
Department of Revenue	0	0	0	0	0	0	2	2
Department of Social and Health Services	2	0	3	0	23	28	116	144
Department of Transportation	0	0	0	0	5	5	20	25
Department of Veterans Affairs	0	1	0	0	0	1	1	2
Employment Security Department	1	0	0	0	1	2	0	2
Health Care Authority	0	0	0	0	0	0	2	2

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
Industrial Insurance Appeals	0	0	0	0	0	0	1	1
Liquor and Cannabis Board	0	0	0	0	0	0	2	2
Military Department	1	0	0	0	5	6	21	27
Office of Financial Management	0	0	0	0	0	0	2	2
State Board of Community and Technical Colleges	0	0	0	0	0	0	1	1
State Investment Board	0	0	0	0	0	0	1	1
State Parks and Recreation	0	0	0	0	1	1	7	8
Traffic Safety Commission	0	0	0	0	0	0	1	1
University of Washington (UW)	2	6	10	5	54	77	368	445
Utilities and Transportation Commission	0	0	1	0	0	1	1	2
Washington State Patrol	0	0	0	0	0	0	2	2
TOTAL	13	20	23	32	189	277	1,850	2,127

Table F-2 presents data on the distribution of contracts across various demographic groups for each contracting authority. It should be read from left to right with the final column always equaling 100% (i.e. all of the contracts that were issued). The MWBE column represents the total share of contracts issued to non-white firms and white women firms combined. The Non-MWBE column represents the share of contracts issued to firms that are not owned by non-whites or white women. Therefore, the MWBE and Non-MWBE columns sum to 100%.

Table F-2: Contracting Authority Distribution of Contracts by Demographic Group (Share)

		<u> </u>		` ,				
Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
Central Washington University (CWU)	0.00%	0.00%	1.67%	8.33%	3.33%	13.33%	86.67%	100.00%
Consolidated Technology Services	0.00%	0.00%	50.00%	0.00%	0.00%	50.00%	50.00%	100.00%
Criminal Justice Training Commission	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	50.00%	100.00%
Department of Agriculture	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
Department of Commerce	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	50.00%	100.00%
Department of Corrections	0.00%	0.00%	0.00%	2.04%	8.16%	10.20%	89.80%	100.00%
Department of Early Learning	0.00%	0.00%	0.00%	0.00%	62.50%	62.50%	37.50%	100.00%
Department of Ecology	3.57%	3.57%	3.57%	3.57%	17.86%	32.14%	67.86%	100.00%
Department of Enterprise Services	0.48%	0.88%	0.48%	1.44%	5.83%	9.11%	90.90%	100.00%
Department of Fish and Wildlife	0.00%	2.27%	0.00%	4.55%	13.64%	20.46%	79.55%	100.00%
Department of Health	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Labor and Industries	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	50.00%	100.00%
Department of Licensing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Retirement Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Social and Health Services	1.39%	0.00%	2.08%	0.00%	15.97%	19.44%	80.56%	100.00%
Department of Transportation	0.00%	0.00%	0.00%	0.00%	20.00%	20.00%	80.00%	100.00%
Department of Veterans Affairs	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%
Employment Security Department	50.00%	0.00%	0.00%	0.00%	50.00%	100.00%	0.00%	100.00%
Health Care Authority	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Industrial Insurance Appeals	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
пиизити пізигапсе Арреаіз	0.0070	0.0070	0.0070	0.0070	0.0070	0.0078	100.0076	1

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non- MWBE	Total
Liquor and Cannabis Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Military Department	3.70%	0.00%	0.00%	0.00%	18.52%	22.22%	77.78%	100.00%
Office of Financial Management	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Board of Community and Technical Colleges	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Investment Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Parks and Recreation	0.00%	0.00%	0.00%	0.00%	12.50%	12.50%	87.50%	100.00%
Traffic Safety Commission	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
University of Washington (UW)	0.45%	1.35%	2.25%	1.12%	12.13%	17.30%	82.70%	100.00%
Utilities and Transportation Commission	0.00%	0.00%	50.00%	0.00%	0.00%	50.00%	50.00%	100.00%
Washington State Patrol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.61%	0.94%	1.08%	1.50%	8.89%	13.02%	86.98%	100.00%

Table F-3 presents data on the distribution of contracts received by various demographic groups across the different contracting authority. It should be read from top to bottom with the final row always equaling 100% (i.e. all of the contracts that were issued).

Table F-3: Demographic Group Distribution of Contracts by Contracting Authority Group (Share)

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Central Washington University (CWU)	0.00%	0.00%	4.35%	15.63%	1.06%	4.23%	2.81%	2.82%
Consolidated Technology Services	0.00%	0.00%	4.35%	0.00%	0.00%	0.00%	0.05%	0.09%
Criminal Justice Training Commission	0.00%	0.00%	0.00%	0.00%	0.53%	0.53%	0.05%	0.09%
Department of Agriculture	0.00%	0.00%	0.00%	0.00%	0.53%	0.53%	0.00%	0.05%
Department of Commerce	0.00%	0.00%	0.00%	0.00%	1.06%	1.06%	0.11%	0.19%
Department of Corrections	0.00%	0.00%	0.00%	3.13%	2.12%	2.12%	2.38%	2.30%
Department of Early Learning	0.00%	0.00%	0.00%	0.00%	2.65%	2.65%	0.16%	0.38%
Department of Ecology	7.69%	5.00%	4.35%	3.13%	2.65%	2.65%	1.03%	1.32%
Department of Enterprise Services	46.15%	55.00%	26.09%	56.25%	38.62%	38.62%	61.57%	58.91%
Department of Fish and Wildlife	0.00%	5.00%	0.00%	6.25%	3.17%	3.17%	1.89%	2.07%
Department of Health	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Labor and Industries	0.00%	0.00%	0.00%	0.00%	0.53%	0.53%	0.05%	0.09%
Department of Licensing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
Department of Retirement Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
Department of Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
Department of Social and Health Services	15.38%	0.00%	13.04%	0.00%	12.17%	12.17%	6.27%	6.77%
Department of Transportation	0.00%	0.00%	0.00%	0.00%	2.65%	2.65%	1.08%	1.18%
Department of Veterans Affairs	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.09%
Employment Security Department	7.69%	0.00%	0.00%	0.00%	0.53%	0.53%	0.00%	0.09%
Health Care Authority	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
Industrial Insurance Appeals	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
Liquor and Cannabis Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
Military Department	7.69%	0.00%	0.00%	0.00%	2.65%	2.65%	1.14%	1.27%

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Office of Financial Management	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
State Board of Community and Technical Colleges	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
State Investment Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
State Parks and Recreation	0.00%	0.00%	0.00%	0.00%	0.53%	0.53%	0.38%	0.38%
Traffic Safety Commission	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
University of Washington (UW)	15.38%	30.00%	43.48%	15.63%	28.57%	28.57%	19.89%	20.92%
Utilities and Transportation Commission	0.00%	0.00%	4.35%	0.00%	0.00%	0.00%	0.05%	0.09%
Washington State Patrol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.09%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

State of Washington Disparity Study 2019

Source: CHA analysis of State of Washington data

2. Part Two: Contracting Authority Distribution of Contract Dollars

Table F-4: Contracting Authority Distribution of Contract Dollars by Demographic Group

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total				
Central Washington University (CWU)	\$0.00	\$0.00	\$74,959.00	\$16,231,998.25	\$246,389.00	\$16,553,346.25	\$71,413,897.11	\$87,967,243.36				
Consolidated Technology Services	\$0.00	\$0.00	\$2,960,044.50	\$0.00	\$0.00	\$2,960,044.50	\$20,481,900.00	\$23,441,944.50				
Criminal Justice Training Commission	\$0.00	\$0.00	\$0.00	\$0.00	\$158,666.20	\$158,666.20	\$180,000.00	\$338,666.20				
Department of Agriculture	\$0.00	\$0.00	\$0.00	\$0.00	\$23,000.00	\$23,000.00	\$0.00	\$23,000.00				
Department of Commerce	\$0.00	\$0.00	\$0.00	\$0.00	\$1,943,733.19	\$1,943,733.19	\$334,522.00	\$2,278,255.19				
Department of Corrections	\$0.00	\$0.00	\$0.00	\$2,892,828.00	\$3,577,543.25	\$6,470,371.25	\$75,538,651.77	\$82,009,023.02				
Department of Early Learning	\$0.00	\$0.00	\$0.00	\$0.00	\$257,515.00	\$257,515.00	\$5,074,748.25	\$5,332,263.25				
Department of Ecology	\$10,525.50	\$2,026.78	\$18,736.19	\$3,740.79	\$4,837,626.89	\$4,872,656.15	\$18,300,701.00	\$23,173,357.15				
Department of Enterprise Services	\$996,811.12	\$13,527,687.22	\$2,338,338.25	\$19,957,423.43	\$22,492,795.02	\$59,313,055.04	\$1,159,447,440.13	\$1,218,760,495.17				
Department of Fish and Wildlife	\$0.00	\$14,745.66	\$0.00	\$51,478.71	\$617,806.05	\$684,030.42	\$30,563,307.20	\$31,247,337.62				
Department of Health	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,773,275.25	\$8,773,275.25				
Department of Labor and Industries	\$0.00	\$0.00	\$0.00	\$0.00	\$1,763,064.88	\$1,763,064.88	\$980,759.81	\$2,743,824.69				
Department of Licensing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,319,271.00	\$1,319,271.00				

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Retirement Services	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$483,500.00	\$483,500.00
Department of Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$373,626.14	\$373,626.14
Department of Social and Health Services	\$33,901,694.75	\$0.00	\$9,183,855.88	\$0.00	\$171,321,117.31	\$214,406,667.94	\$581,462,684.73	\$795,869,352.67
Department of Transportation	\$0.00	\$0.00	\$0.00	\$0.00	\$2,927,893.30	\$2,927,893.30	\$219,438.92	\$3,147,332.22
Department of Veterans Affairs	\$0.00	\$183,989.00	\$0.00	\$0.00	\$0.00	\$183,989.00	\$602,200.00	\$786,189.00
Employment Security Department	\$66,950.00	\$0.00	\$0.00	\$0.00	\$28,790.42	\$95,740.42	\$0.00	\$95,740.42
Health Care Authority	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,945,333.00	\$4,945,333.00
Industrial Insurance Appeals	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,250,975.88	\$1,250,975.88
Liquor and Cannabis Board	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29,673.80	\$29,673.80
Military Department	\$87,211.00	\$0.00	\$0.00	\$0.00	\$4,425,874.47	\$4,513,085.47	\$11,068,768.06	\$15,581,853.53
Office of Financial Management	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,521,446.62	\$3,521,446.62
State Board of Community and Technical Colleges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44,720.76	\$44,720.76
State Investment Board	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$116,500.00	\$116,500.00
State Parks and Recreation	\$0.00	\$0.00	\$0.00	\$0.00	\$5,980.90	\$5,980.90	\$2,877,775.04	\$2,883,755.94
Traffic Safety Commission	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,474,647.00	\$2,474,647.00

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
University of Washington (UW)	\$21,579.08	\$2,744,562.70	\$6,586,321.70	\$10,588,926.97	\$106,752,824.18	\$126,694,214.63	\$408,548,182.59	\$535,242,397.22
Utilities and Transportation Commission	\$0.00	\$0.00	\$223,190.00	\$0.00	\$0.00	\$223,190.00	\$607,549.75	\$830,739.75
Washington State Patrol	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,033,950.81	\$2,033,950.81
TOTAL	\$35,084,771.45	\$16,473,011.36	\$21,385,445.52	\$49,726,396.15	\$321,380,620.06	\$444,050,244.54	\$2,413,069,446.62	\$2,857,119,691.16

Table F-5 presents data on the distribution of contract dollars across various demographic groups for each contracting authority. It should be read from left to right with the final column always equaling 100% (i.e. all of the contracts that were issued). The MWBE column represents the total share of contract dollars issued to non-white firms and white women firms combined. The Non-MWBE column represents the share of contract dollars issued to firms that are not owned by non-whites or white women. Therefore, the MWBE and Non-MWBE columns sum to 100%.

Table F-5: Contracting Authority Distribution of Contract Dollars by Demographic Group (Share)

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total			
Central Washington University (CWU)	0.00%	0.00%	0.09%	18.45%	0.28%	18.82%	81.18%	100.00%			
Consolidated Technology Services	0.00%	0.00%	12.63%	0.00%	0.00%	12.63%	87.37%	100.00%			
Criminal Justice Training Commission	0.00%	0.00%	0.00%	0.00%	46.85%	46.85%	53.15%	100.00%			

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Agriculture	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
Department of Commerce	0.00%	0.00%	0.00%	0.00%	85.32%	85.32%	14.68%	100.00%
Department of Corrections	0.00%	0.00%	0.00%	3.53%	4.36%	7.89%	92.11%	100.00%
Department of Early Learning	0.00%	0.00%	0.00%	0.00%	4.83%	4.83%	95.17%	100.00%
Department of Ecology	0.05%	0.01%	0.08%	0.02%	20.88%	21.03%	78.97%	100.00%
Department of Enterprise Services	0.08%	1.11%	0.19%	1.64%	1.85%	4.87%	95.13%	100.00%
Department of Fish and Wildlife	0.00%	0.05%	0.00%	0.16%	1.98%	2.19%	97.81%	100.00%
Department of Health	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Labor and Industries	0.00%	0.00%	0.00%	0.00%	64.26%	64.26%	35.74%	100.00%
Department of Licensing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Retirement Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Department of Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

State of Washington Disparity Study 2019

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Social and Health Services	4.26%	0.00%	1.15%	0.00%	21.53%	26.94%	73.06%	100.00%
Department of Transportation	0.00%	0.00%	0.00%	0.00%	93.03%	93.03%	6.97%	100.00%
Department of Veterans Affairs	0.00%	23.40%	0.00%	0.00%	0.00%	23.40%	76.60%	100.00%
Employment Security Department	69.93%	0.00%	0.00%	0.00%	30.07%	100.00%	0.00%	100.00%
Health Care Authority	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Industrial Insurance Appeals	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Liquor and Cannabis Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Military Department	0.56%	0.00%	0.00%	0.00%	28.40%	28.96%	71.04%	100.00%
Office of Financial Management	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Board of Community and Technical Colleges	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Investment Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
State Parks and Recreation	0.00%	0.00%	0.00%	0.00%	0.21%	0.21%	99.79%	100.00%

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Traffic Safety Commission	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
University of Washington (UW)	0.00%	0.51%	1.23%	1.98%	19.94%	23.67%	76.33%	100.00%
Utilities and Transportation Commission	0.00%	0.00%	26.87%	0.00%	0.00%	26.87%	73.13%	100.00%
Washington State Patrol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	1.23%	0.58%	0.75%	1.74%	11.25%	15.54%	84.46%	100.00%

Tabble F-6 presents data on the distribution of contract dollars received by various demographic groups across the different contracting authority. It should be read from top to bottom with the final row always equaling 100% (i.e. all of the contracts dollars that were received by that demographic group).

State of Washington Disparity Study 2019

Table F-6: Demographic Group Distribution of Contract Dollars by Contracting Authority Group (Share)

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Central Washington University (CWU)	0.00%	0.00%	0.35%	32.64%	0.08%	3.73%	2.96%	3.08%
Consolidated Technology Services	0.00%	0.00%	13.84%	0.00%	0.00%	0.67%	0.85%	0.82%
Criminal Justice Training Commission	0.00%	0.00%	0.00%	0.00%	0.05%	0.04%	0.01%	0.01%

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Agriculture	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%
Department of Commerce	0.00%	0.00%	0.00%	0.00%	0.60%	0.44%	0.01%	0.08%
Department of Corrections	0.00%	0.00%	0.00%	5.82%	1.11%	1.46%	3.13%	2.87%
Department of Early Learning	0.00%	0.00%	0.00%	0.00%	0.08%	0.06%	0.21%	0.19%
Department of Ecology	0.03%	0.01%	0.09%	0.01%	1.51%	1.10%	0.76%	0.81%
Department of Enterprise Services	2.84%	82.12%	10.93%	40.13%	7.00%	13.36%	48.05%	42.66%
Department of Fish and Wildlife	0.00%	0.09%	0.00%	0.10%	0.19%	0.15%	1.27%	1.09%
Department of Health	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.36%	0.31%
Department of Labor and Industries	0.00%	0.00%	0.00%	0.00%	0.55%	0.40%	0.04%	0.10%
Department of Licensing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%
Department of Retirement Services	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.02%
Department of Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%

Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Department of Social and Health Services	96.63%	0.00%	42.94%	0.00%	53.31%	48.28%	24.10%	27.86%
Department of Transportation	0.00%	0.00%	0.00%	0.00%	0.91%	0.66%	0.01%	0.11%
Department of Veterans Affairs	0.00%	1.12%	0.00%	0.00%	0.00%	0.04%	0.02%	0.03%
Employment Security Department	0.19%	0.00%	0.00%	0.00%	0.01%	0.02%	0.00%	0.00%
Health Care Authority	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.17%
Industrial Insurance Appeals	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.04%
Liquor and Cannabis Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Military Department	0.25%	0.00%	0.00%	0.00%	1.38%	1.02%	0.46%	0.55%
Office of Financial Management	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.12%
State Board of Community and Technical Colleges	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
State Investment Board	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
State Parks and Recreation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%	0.10%

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Contracting Authority	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	Total
Traffic Safety Commission	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	0.09%
University of Washington (UW)	0.06%	16.66%	30.80%	21.29%	33.22%	28.53%	16.93%	18.73%
Utilities and Transportation Commission	0.00%	0.00%	1.04%	0.00%	0.00%	0.05%	0.03%	0.03%
Washington State Patrol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%	0.07%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table F-7 presents data on the distribution of contract dollars across various demographic groups and NAICS code for each contracting authority. It should be read from left to right with the final column always equaling all of the contract dollars. The MWBE column represents the total contract dollars issued to non-white firms and white women firms combined. The Non-MWBE column represents the contract dollars issued to firms that are not owned by non-whites or white women. Therefore, the MWBE and Non-MWBE columns sum to the total

Table F-7: Contracting Authority Group Distribution of Contract Dollars by Demographic Group and NAICS codes

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL	
Central Washington University (CWU)									
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$29,558,688	\$29,558,688	
237310	\$0	\$0	\$74,959	\$0	\$0	\$74,959	\$1,153,539	\$1,228,498	
238120	\$0	\$0	\$0	\$402,000	\$0	\$402,000	\$1,269,149	\$1,671,149	

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238140	\$0	\$0	\$0	\$0	\$0	\$0	\$755,058	\$755,058
238160	\$0	\$0	\$0	\$0	\$0	\$0	\$3,178,893	\$3,178,893
238210	\$0	\$0	\$0	\$0	\$0	\$0	\$16,945,216	\$16,945,216
238220	\$0	\$0	\$0	\$12,981,950	\$0	\$12,981,950	\$5,435,924	\$18,417,874
238290	\$0	\$0	\$0	\$1,387,246	\$0	\$1,387,246	\$429,129	\$1,816,375
238310	\$0	\$0	\$0	\$0	\$0	\$0	\$4,238,399	\$4,238,399
238320	\$0	\$0	\$0	\$0	\$0	\$0	\$574,307	\$574,307
238330	\$0	\$0	\$0	\$0	\$0	\$0	\$1,179,094	\$1,179,094
238350	\$0	\$0	\$0	\$1,460,802	\$39,389	\$1,500,191	\$264,667	\$1,764,858
238910	\$0	\$0	\$0	\$0	\$0	\$0	\$1,707,652	\$1,707,652
238990	\$0	\$0	\$0	\$0	\$0	\$0	\$551,641	\$551,641
541310	\$0	\$0	\$0	\$0	\$0	\$0	\$4,172,542	\$4,172,542
541330	\$0	\$0	\$0	\$0	\$207,000	\$207,000	\$0	\$207,000
TOTAL	\$0	\$0	\$74,959	\$16,231,998	\$246,389	\$16,553,346	\$71,413,897	\$87,967,243
Consolidat	ed Technology S	ervices						
238210	\$0	\$0	\$0	\$0	\$0	\$0	\$20,481,900	\$20,481,900
423430	\$0	\$0	\$2,960,045	\$0	\$0	\$2,960,045	\$0	\$2,960,045
TOTAL	\$0	\$0	\$2,960,045	\$0	\$0	\$2,960,045	\$20,481,900	\$23,441,945
Consolidat	ed Technology S	ervices						
611430	\$0	\$0	\$0	\$0	\$158,666	\$158,666	\$180,000	\$338,666
TOTAL	\$0	\$0	\$0	\$0	\$158,666	\$158,666	\$180,000	\$338,666

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL		
Department of Agriculture										
238990	\$0	\$0	\$0	\$0	\$23,000	\$23,000	\$0	\$23,000		
TOTAL	\$0	\$0	\$0	\$0	\$23,000	\$23,000	\$0	\$23,000		
Departmer	nt of Commerce									
624310	\$0	\$0	\$0	\$0	\$1,943,733	\$1,943,733	\$334,522	\$2,278,255		
TOTAL	\$0	\$0	\$0	\$0	\$1,943,733	\$1,943,733	\$334,522	\$2,278,255		
Departmer	nt of Corrections									
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$8,558,718	\$8,558,718		
237310	\$0	\$0	\$0	\$0	\$5,697	\$5,697	\$4,778,027	\$4,783,724		
238120	\$0	\$0	\$0	\$0	\$0	\$0	\$738,242	\$738,242		
238130	\$0	\$0	\$0	\$0	\$0	\$0	\$457,728	\$457,728		
238140	\$0	\$0	\$0	\$0	\$0	\$0	\$687,527	\$687,527		
238160	\$0	\$0	\$0	\$0	\$0	\$0	\$619,042	\$619,042		
238210	\$0	\$0	\$0	\$0	\$2,506,482	\$2,506,482	\$5,776,185	\$8,282,667		
238220	\$0	\$0	\$0	\$2,892,828	\$0	\$2,892,828	\$3,591,193	\$6,484,021		
238290	\$0	\$0	\$0	\$0	\$0	\$0	\$117,000	\$117,000		
238310	\$0	\$0	\$0	\$0	\$0	\$0	\$1,163,906	\$1,163,906		
238320	\$0	\$0	\$0	\$0	\$0	\$0	\$230,129	\$230,129		
238330	\$0	\$0	\$0	\$0	\$0	\$0	\$6,035	\$6,035		
238350	\$0	\$0	\$0	\$0	\$0	\$0	\$13,720	\$13,720		
238910	\$0	\$0	\$0	\$0	\$1,065,364	\$1,065,364	\$1,883,696	\$2,949,060		
238990	\$0	\$0	\$0	\$0	\$0	\$0	\$174,760	\$174,760		

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
541310	\$0	\$0	\$0	\$0	\$0	\$0	\$3,792,234	\$3,792,234
621420	\$0	\$0	\$0	\$0	\$0	\$0	\$42,950,510	\$42,950,510
TOTAL	\$0	\$0	\$0	\$2,892,828	\$3,577,543	\$6,470,371	\$75,538,652	\$82,009,023
Departme	nt of Early Learr	ning						
541611	\$0	\$0	\$0	\$0	\$257,515	\$257,515	\$5,074,748	\$5,332,263
TOTAL	\$0	\$0	\$0	\$0	\$257,515	\$257,515	\$5,074,748	\$5,332,263
Departme	nt of Ecology							
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$51,321	\$51,321
237310	\$0	\$0	\$0	\$0	\$0	\$0	\$35,217	\$35,217
238220	\$0	\$0	\$0	\$0	\$0	\$0	\$8,444,779	\$8,444,779
238910	\$0	\$2,027	\$0	\$3,741	\$7,145	\$12,913	\$1,861,145	\$1,874,058
238990	\$0	\$0	\$18,736	\$0	\$0	\$18,736	\$42,819	\$61,555
541330	\$10,526	\$0	\$0	\$0	\$0	\$10,526	\$1,342,616	\$1,353,141
562910	\$0	\$0	\$0	\$0	\$4,830,482	\$4,830,482	\$6,522,805	\$11,353,287
TOTAL	\$10,526	\$2,027	\$18,736	\$3,741	\$4,837,627	\$4,872,656	\$18,300,701	\$23,173,357
Departme	nt of Enterprise S	Services						
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$108,403,412	\$108,403,412
237310	\$0	\$0	\$0	\$0	\$355,672	\$355,672	\$7,408,124	\$7,763,796
238120	\$672,508	\$144,669	\$0	\$1,086,892	\$1,368,640	\$3,272,709	\$10,239,740	\$13,512,449
238130	\$0	\$0	\$53,569	\$0	\$31,040	\$84,609	\$4,623,322	\$4,707,931
238140	\$0	\$0	\$0	\$0	\$112,635	\$112,635	\$7,904,711	\$8,017,346
238150	\$0	\$0	\$1,103,441	\$0	\$312,979	\$1,416,420	\$12,187,901	\$13,604,322
238160	\$0	\$0	\$0	\$1,763	\$2,103,771	\$2,105,534	\$13,257,371	\$15,362,905

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238210	\$0	\$4,706,188	\$0	\$1,615,474	\$9,444,601	\$15,766,263	\$116,960,372	\$132,726,635
238220	\$25,585	\$0	\$0	\$15,152,217	\$5,883,591	\$21,061,393	\$132,884,834	\$153,946,226
238290	\$0	\$0	\$0	\$0	\$103,132	\$103,132	\$3,714,697	\$3,817,829
238310	\$153,107	\$0	\$0	\$202,253	\$576,397	\$931,757	\$14,592,385	\$15,524,142
238320	\$0	\$5,299		\$270,015	\$341,992	\$617,306	\$5,751,305	\$6,368,611
238330	\$145,026	\$15,210	\$0	\$0	\$267,407	\$427,643	\$4,745,640	\$5,173,283
238350	\$0	\$32,375	\$0	\$832,394	\$0	\$864,769	\$11,071,607	\$11,936,376
238910	\$585	\$1,884,167	\$1,099,205	\$630,000	\$5,090	\$3,619,048	\$18,492,722	\$22,111,770
238990	\$0	\$4,770	\$0	\$166,416	\$208,185	\$379,370	\$2,481,028	\$2,860,398
332322	\$0	\$0	\$0	\$0	\$1,053,034	\$1,053,034	\$12,771,816	\$13,824,850
423430	\$0	\$0	\$0	\$0	\$0	\$0	\$9,346	\$9,346
441110	\$0	\$0	\$0	\$0	\$0	\$0	\$157,749,012	\$157,749,012
522110	\$0	\$0	\$0	\$0	\$0	\$0	\$439,610,080	\$439,610,080
541310	\$0	\$6,726,470	\$57,155	\$0	\$0	\$6,783,624	\$35,825,167	\$42,608,791
541330	\$0	\$0	\$24,968	\$0	\$0	\$24,968	\$27,578,271	\$27,603,239
541611	\$0	\$0	\$0	\$0	\$289,650	\$289,650	\$6,510,290	\$6,799,940
562910	\$0	\$8,540	\$0	\$0	\$34,979	\$43,519	\$4,674,287	\$4,717,805
TOTAL	\$996,811	\$13,527,687	\$2,338,338	\$19,957,423	\$22,492,795	\$59,313,055	\$1,159,447,440	\$1,218,760,495
Departme	nt of Fish and Wi	ldlife						
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$10,161,713	\$10,161,713
237310	\$0	\$0	\$0	\$3,600	\$0	\$3,600	\$1,144,744	\$1,148,344
238120	\$0	\$14,746	\$0	\$47,879	\$0	\$62,624	\$335,552	\$398,177

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238130	\$0	\$0	\$0	\$0	\$0	\$0	\$49,664	\$49,664
238210	\$0	\$0	\$0	\$0	\$546,132	\$546,132	\$311,689	\$857,821
238220	\$0	\$0	\$0	\$0	\$0	\$0	\$131,926	\$131,926
238910	\$0	\$0	\$0	\$0	\$47,410	\$47,410	\$13,812,618	\$13,860,027
238990	\$0	\$0	\$0	\$0	\$20,865	\$20,865	\$72,552	\$93,417
541330	\$0	\$0	\$0		\$0	\$0	\$4,540,148	\$4,540,148
562910	\$0	\$0	\$0	\$0	\$3,400	\$3,400	\$2,700	\$6,100
TOTAL	\$0	\$14,746	\$0	\$51,479	\$617,806	\$684,030	\$30,563,307	\$31,247,338
Departmen	nt of Health							
541511	\$0	\$0	\$0	\$0	\$0	\$0	\$1,423,324	\$1,423,324
541840	\$0	\$0	\$0	\$0	\$0	\$0	\$7,349,952	\$7,349,952
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$8,773,275	\$8,773,275
Departmen	nt of Labor and Ir	ndustries						
541830	\$0	\$0	\$0	\$0	\$1,763,065	\$1,763,065	\$0	\$1,763,065
621340	\$0	\$0	\$0	\$0	\$0	\$0	\$980,760	\$980,760
TOTAL	\$0	\$0	\$0	\$0	\$1,763,065	\$1,763,065	\$980,760	\$2,743,825
Departmer	nt of Licensing							
541690	\$0	\$0	\$0	\$0	\$0	\$0	\$1,319,271	\$1,319,271
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$1,319,271	\$1,319,271

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Departmen	nt of Licensing							
541219	\$0	\$0	\$0	\$0	\$0	\$0	\$178,500	\$178,500
541612	\$0	\$0	\$0	\$0	\$0	\$0	\$305,000	\$305,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$483,500	\$483,500
Departmen	nt of Revenue							
518210	\$0	\$0	\$0	\$0	\$0	\$0	\$176,014	\$176,014
561613	\$0	\$0	\$0	\$0	\$0	\$0	\$197,612	\$197,612
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$373,626	\$373,626
Departmen	nt of Social and H	Health Services						
531110	\$0	\$0	\$0	\$0	\$0	\$0	\$11,832,743	\$11,832,743
541611	\$0	\$0	\$0	\$0	\$0	\$0	\$1,927,763	\$1,927,763
541618	\$0	\$0	\$0	\$0	\$0	\$0	\$13,993,494	\$13,993,494
621420	\$0	\$0	\$0	\$0	\$0	\$0	\$1,321,378	\$1,321,378
621610	\$33,901,695	\$0	\$0	\$0	\$63,117,348	\$97,019,043	\$48,902,382	\$145,921,425
623210	\$0	\$0	\$9,183,856	\$0	\$29,751,260	\$38,935,116	\$321,728,673	\$360,663,790
624120	\$0	\$0	\$0	\$0	\$50,188,491	\$50,188,491	\$159,099,105	\$209,287,597
624210	\$0	\$0	\$0	\$0	\$28,264,018	\$28,264,018	\$22,657,146	\$50,921,164
TOTAL	\$33,901,695	\$0	\$9,183,856	\$0	\$171,321,117	\$214,406,668	\$581,462,685	\$795,869,353
Departmen	nt of Transportat	tion						
237310	\$0	\$0	\$0	\$0	\$10,080	\$10,080	\$96,379	\$106,459
238210	\$0	\$0	\$0	\$0	\$0	\$0	\$75,780	\$75,780
238220	\$0	\$0	\$0	\$0	\$0	\$0	\$320	\$320

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238910	\$0	\$0	\$0	\$0	\$2,908,789	\$2,908,789	\$12,069	\$2,920,858
238990	\$0	\$0	\$0	\$0	\$4,024	\$4,024	\$18,040	\$22,063
541330	\$0	\$0	\$0	\$0	\$2,733	\$2,733	\$14,527	\$17,260
562910	\$0	\$0	\$0	\$0	\$2,268	\$2,268	\$2,325	\$4,593
TOTAL	\$0	\$0	\$0	\$0	\$2,927,893	\$2,927,893	\$219,439	\$3,147,332
Departmen	nt of Veterans Af	fairs						
621330	\$0	\$183,989	\$0	\$0	\$0	\$183,989	\$0	\$183,989
621511	\$0	\$0	\$0	\$0	\$0	\$0	\$602,200	\$602,200
TOTAL	\$0	\$183,989	\$0	\$0	\$0	\$183,989	\$602,200	\$786,189
Employme	nt Security Depa	rtment						
561612	\$0	\$0	\$0	\$0	\$28,790	\$28,790	\$0	\$28,790
561622	\$66,950	\$0	\$0	\$0	\$0	\$66,950	\$0	\$66,950
TOTAL	\$66,950	\$0	\$0	\$0	\$28,790	\$95,740	\$0	\$95,740
Health Car	e Authority							
541611	\$0	\$0	\$0	\$0	\$0	\$0	\$4,945,333	\$4,945,333
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$4,945,333	\$4,945,333
Industrial I	nsurance Appea	ls						
561492	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,976	\$1,250,976
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,976	\$1,250,976
Liquor and	Cannabis Board							
423430	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29,673.80	\$29,673.80
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29,673.80	\$29,673.80

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Liquor and	Cannabis Board							
237310	\$0	\$0	\$0	\$0	\$832,934	\$832,934	\$210,506	\$1,043,440
238120	\$0	\$0	\$0	\$0	\$0	\$0	\$898,608	\$898,608
238140	\$0	\$0	\$0	\$0	\$0	\$0	\$938,288	\$938,288
238160	\$0	\$0	\$0	\$0	\$336,008	\$336,008	\$0	\$336,008
238210	\$0	\$0	\$0	\$0	\$3,067,455	\$3,067,455	\$0	\$3,067,455
238220	\$0	\$0	\$0	\$0	\$0	\$0	\$5,627,632	\$5,627,632
238290	\$0	\$0	\$0	\$0	\$0	\$0	\$265,271	\$265,271
238310	\$0	\$0	\$0	\$0	\$0	\$0	\$343,329	\$343,329
238320	\$0	\$0	\$0	\$0	\$170,138	\$170,138	\$0	\$170,138
238330	\$0	\$0	\$0	\$0	\$0	\$0	\$322,474	\$322,474
238350	\$87,211	\$0	\$0	\$0	\$0	\$87,211	\$1,103,348	\$1,190,559
238990	\$0	\$0	\$0	\$0	\$19,340	\$19,340	\$0	\$19,340
541310	\$0	\$0	\$0	\$0	\$0	\$0	\$1,356,770	\$1,356,770
541330	\$0	\$0	\$0	\$0	\$0	\$0	\$2,543	\$2,543
TOTAL	\$87,211	\$0	\$0	\$0	\$4,425,874	\$4,513,085	\$11,068,768	\$15,581,854
Office of Fi	nancial Manager	ment						
517311	\$0	\$0	\$0	\$0	\$0	\$0	\$3,521,447	\$3,521,447
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$3,521,447	\$3,521,447
State Board	d of Community	and Technical Co	olleges					
238220	\$0	\$0	\$0	\$0	\$0	\$0	\$44,721	\$44,721
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$44,721	\$44,721

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
State Inves	stment Board							
541211	\$0	\$0	\$0	\$0	\$0	\$0	\$116,500	\$116,500
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$116,500	\$116,500
State Parks	and Recreation							
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$97,827	\$97,827
237310	\$0	\$0	\$0	\$0	\$5,981	\$5,981	\$2,779,948	\$2,785,929
TOTAL	\$0	\$0	\$0	\$0	\$5,981	\$5,981	\$2,877,775	\$2,883,756
Traffic Safe	ety Commission							
541830	\$0	\$0	\$0	\$0	\$0	\$0	\$2,474,647	\$2,474,647
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$2,474,647	\$2,474,647
University	of Washington (UW)						
236220	\$0	\$0	\$0	\$0	\$101,882	\$101,882	\$208,558,262	\$208,660,144
237310	\$585	\$0	\$1,285,526	\$0	\$856	\$1,286,967	\$2,559,464	\$3,846,431
238120	\$0	\$2,612,930	\$2,597,028	\$0	\$0	\$5,209,958	\$482,920	\$5,692,878
238130	\$0	\$0	\$0	\$0	\$0	\$0	\$2,985,956	\$2,985,956
238140	\$0	\$0	\$0	\$0	\$0	\$0	\$5,720,885	\$5,720,885
238150	\$0	\$0	\$0	\$0	\$32,150	\$32,150	\$7,928,796	\$7,960,946
238160	\$0	\$13,315	\$0	\$0	\$1,695,472	\$1,708,787	\$2,280,841	\$3,989,628
238210	\$0	\$0	\$0	\$0	\$49,796,346	\$49,796,346	\$5,977,732	\$55,774,078
238220	\$0	\$0	\$0	\$186,925	\$43,390,560	\$43,577,485	\$21,672,393	\$65,249,877
238290	\$0	\$0	\$0	\$0	\$0	\$0	\$10,467,442	\$10,467,442
238310	\$0	\$0	\$0	\$0	\$155,865	\$155,865	\$11,271,595	\$11,427,460

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238320	\$20,994	\$0	\$742,662	\$0	\$333,895	\$1,097,551	\$2,292,658	\$3,390,209
238330	\$0	\$0	\$0	\$0	\$24,842	\$24,842	\$5,598,669	\$5,623,511
238350	\$0	\$49,000	\$1,102	\$10,328,295	\$37,070	\$10,415,467	\$8,237,705	\$18,653,172
238910	\$0	\$57,668	\$0	\$1,036	\$8,140,253	\$8,198,956	\$8,982,971	\$17,181,928
238990	\$0	\$0	\$941	\$0	\$1,876,339	\$1,877,279	\$5,221,005	\$7,098,284
332322	\$0	\$0	\$1,743,037	\$0	\$0	\$1,743,037	\$8,812,001	\$10,555,038
423430	\$0	\$0	\$0	\$0	\$0	\$0	\$34,501,804	\$34,501,804
541310	\$0	\$0	\$14,526	\$0	\$0	\$14,526	\$42,026,958	\$42,041,484
541330	\$0	\$11,650	\$201,500	\$0	\$954,424	\$1,167,573	\$9,752,470	\$10,920,044
541611	\$0	\$0	\$0	\$0	\$0	\$0	\$4,023	\$4,023
562910	\$0	\$0	\$0	\$72,671	\$212,872	\$285,543	\$3,211,634	\$3,497,177
TOTAL	\$21,579	\$2,744,563	\$6,586,322	\$10,588,927	\$106,752,824	\$126,694,215	\$408,548,183	\$535,242,397
Utilities an	d Transportation	Commission						
541830	\$0	\$0	\$223,190	\$0	\$0	\$223,190	\$607,550	\$830,740
TOTAL	\$0	\$0	\$223,190	\$0	\$0	\$223,190	\$607,550	\$830,740
Washingto	n State Patrol							
517312	\$0	\$0	\$0	\$0	\$0	\$0	\$2,033,951	\$2,033,951
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$2,033,951	\$2,033,951

Source: CHA analysis of State of Washington data

Table F-8 presents data on the distribution of contract dollars across various demographic groups and NAICS code for each contracting authority. It should be read from left to right with the final column always equaling 100% (i.e. all of the contracts that were issued). The MWBE column represents the total share of contract dollars issued to non-white firms and white women

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firms combined. The Non-MWBE column represents the share of contract dollars issued to firms that are not owned by non-whites or white women. Therefore, the MWBE and Non-MWBE columns sum to 100%.

Table F-8: Contracting Authority Group Distribution of Contract Dollars by Demographic Group and NAICS codes (Share)

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Central W	ashington Un	iversity (CWU)					
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
237310	0.00%	0.00%	6.10%	0.00%	0.00%	6.10%	93.90%	100.00%
238120	0.00%	0.00%	0.00%	24.06%	0.00%	24.06%	75.94%	100.00%
238140	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238160	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238220	0.00%	0.00%	0.00%	70.49%	0.00%	70.49%	29.51%	100.00%
238290	0.00%	0.00%	0.00%	76.37%	0.00%	76.37%	23.63%	100.00%
238310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238320	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238330	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238350	0.00%	0.00%	0.00%	82.77%	2.23%	85.00%	15.00%	100.00%
238910	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238990	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541330	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
TOTAL	0.00%	0.00%	0.09%	18.45%	0.28%	18.82%	81.18%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Consolidat	ed Technolog	gy Services						
238210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
423430	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%
TOTAL	0.00%	0.00%	12.63%	0.00%	0.00%	12.63%	87.37%	100.00%
Consolidat	ed Technolog	gy Services						
611430	0.00%	0.00%	0.00%	0.00%	46.85%	46.85%	53.15%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	46.85%	46.85%	53.15%	100.00%
Departmer	nt of Agricult	ure						
238990	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
Departmen	nt of Comme	ce						
624310	0.00%	0.00%	0.00%	0.00%	85.32%	85.32%	14.68%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	85.32%	85.32%	14.68%	100.00%
Departmen	nt of Correcti	ons						
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
237310	0.00%	0.00%	0.00%	0.00%	0.12%	0.12%	99.88%	100.00%
238120	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238130	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238140	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238160	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238210	0.00%	0.00%	0.00%	0.00%	30.26%	30.26%	69.74%	100.00%
238220	0.00%	0.00%	0.00%	44.61%	0.00%	44.61%	55.39%	100.00%
238290	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238320	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238330	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238910	0.00%	0.00%	0.00%	0.00%	36.13%	36.13%	63.87%	100.00%
238990	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621420	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	3.53%	4.36%	7.89%	92.11%	100.00%
Departmen	nt of Early Lea	arning						
541611	0.00%	0.00%	0.00%	0.00%	4.83%	4.83%	95.17%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	4.83%	4.83%	95.17%	100.00%
Departmen	nt of Ecology							
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
237310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238910	0.00%	0.11%	0.00%	0.20%	0.38%	0.69%	99.31%	100.00%
238990	0.00%	0.00%	30.44%	0.00%	0.00%	30.44%	69.56%	100.00%
541330	0.78%	0.00%	0.00%	0.00%	0.00%	0.78%	99.22%	100.00%
562910	0.00%	0.00%	0.00%	0.00%	42.55%	42.55%	57.45%	100.00%
TOTAL	0.05%	0.01%	0.08%	0.02%	20.88%	21.03%	78.97%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Departme	nt of Enterpri	se Services						
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
237310	0.00%	0.00%	0.00%	0.00%	4.58%	4.58%	95.42%	100.00%
238120	4.98%	1.07%	0.00%	8.04%	10.13%	24.22%	75.78%	100.00%
238130	0.00%	0.00%	1.14%	0.00%	0.66%	1.80%	98.20%	100.00%
238140	0.00%	0.00%	0.00%	0.00%	1.40%	1.40%	98.60%	100.00%
238150	0.00%	0.00%	8.11%	0.00%	2.30%	10.41%	89.59%	100.00%
238160	0.00%	0.00%	0.00%	0.01%	13.69%	13.71%	86.29%	100.00%
238210	0.00%	3.55%	0.00%	1.22%	7.12%	11.88%	88.12%	100.00%
238220	0.02%	0.00%	0.00%	9.84%	3.82%	13.68%	86.32%	100.00%
238290	0.00%	0.00%	0.00%	0.00%	2.70%	2.70%	97.30%	100.00%
238310	0.99%	0.00%	0.00%	1.30%	3.71%	6.00%	94.00%	100.00%
238320	0.00%	0.08%	0.00%	4.24%	5.37%	9.69%	90.31%	100.00%
238330	2.80%	0.29%	0.00%	0.00%	5.17%	8.27%	91.73%	100.00%
238350	0.00%	0.27%	0.00%	6.97%	0.00%	7.24%	92.76%	100.00%
238910	0.00%	8.52%	4.97%	2.85%	0.02%	16.37%	83.63%	100.00%
238990	0.00%	0.17%	0.00%	5.82%	7.28%	13.26%	86.74%	100.00%
332322	0.00%	0.00%	0.00%	0.00%	7.62%	7.62%	92.38%	100.00%
423430	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
441110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
522110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	15.79%	0.13%	0.00%	0.00%	15.92%	84.08%	100.00%
541330	0.00%	0.00%	0.09%	0.00%	0.00%	0.09%	99.91%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
541611	0.00%	0.00%	0.00%	0.00%	4.26%	4.26%	95.74%	100.00%
562910	0.00%	0.18%	0.00%	0.00%	0.74%	0.92%	99.08%	100.00%
TOTAL	0.08%	1.11%	0.19%	1.64%	1.85%	4.87%	95.13%	100.00%
Departmen	nt of Fish and	Wildlife						
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
237310	0.00%	0.00%	0.00%	0.31%	0.00%	0.31%	99.69%	100.00%
238120	0.00%	3.70%	0.00%	12.02%	0.00%	15.73%	84.27%	100.00%
238130	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238210	0.00%	0.00%	0.00%	0.00%	63.66%	63.66%	36.34%	100.00%
238220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238910	0.00%	0.00%	0.00%	0.00%	0.34%	0.34%	99.66%	100.00%
238990	0.00%	0.00%	0.00%	0.00%	22.34%	22.34%	77.66%	100.00%
541330	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
562910	0.00%	0.00%	0.00%	0.00%	55.74%	55.74%	44.26%	100.00%
TOTAL	0.00%	0.05%	0.00%	0.16%	1.98%	2.19%	97.81%	100.00%
Departmen	nt of Health							
541511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541840	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Departmen	nt of Labor ar	nd Industries						
541830	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
621340	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	64.26%	64.26%	35.74%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Departmer	nt of Licensin	g						
541690	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Departmer	nt of Licensin	g						
541219	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541612	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Departmen	nt of Revenue	•						
518210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
561613	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Departmen	nt of Social ar	nd Health Ser	vices					
531110	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541611	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541618	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621420	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
621610	23.23%	0.00%	0.00%	0.00%	43.25%	66.49%	33.51%	100.00%
623210	0.00%	0.00%	2.55%	0.00%	8.25%	10.80%	89.20%	100.00%
624120	0.00%	0.00%	0.00%	0.00%	23.98%	23.98%	76.02%	100.00%
624210	0.00%	0.00%	0.00%	0.00%	55.51%	55.51%	44.49%	100.00%
TOTAL	4.26%	0.00%	1.15%	0.00%	21.53%	26.94%	73.06%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
Departme	nt of Transpo	rtation						
237310	0.00%	0.00%	0.00%	0.00%	9.47%	9.47%	90.53%	100.00%
238210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238910	0.00%	0.00%	0.00%	0.00%	99.59%	99.59%	0.41%	100.00%
238990	0.00%	0.00%	0.00%	0.00%	18.24%	18.24%	81.76%	100.00%
541330	0.00%	0.00%	0.00%	0.00%	15.83%	15.83%	84.17%	100.00%
562910	0.00%	0.00%	0.00%	0.00%	49.38%	49.38%	50.62%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	93.03%	93.03%	6.97%	100.00%
Departme	nt of Veteran	s Affairs						
621330	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
621511	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	23.40%	0.00%	0.00%	0.00%	23.40%	76.60%	100.00%
Employme	ent Security D	epartment						
561612	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%
561622	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
TOTAL	69.93%	0.00%	0.00%	0.00%	30.07%	100.00%	0.00%	100.00%
Health Ca	re Authority							
541611	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Industrial	Insurance Ap	peals						
561492	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL	
Liquor and Cannabis Board									
423430	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
Military De	Military Department								
237310	0.00%	0.00%	0.00%	0.00%	79.83%	79.83%	20.17%	100.00%	
238120	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238140	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238160	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	
238210	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	
238220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238290	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238320	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	
238330	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238350	7.33%	0.00%	0.00%	0.00%	0.00%	7.33%	92.67%	100.00%	
238990	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	
541310	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
541330	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.56%	0.00%	0.00%	0.00%	28.40%	28.96%	71.04%	100.00%	
Office of Financial Management									
517311	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL	
State Board of Community and Technical Colleges									
238220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
State Inves	State Investment Board								
541211	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
State Parks	State Parks and Recreation								
236220	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
237310	0.00%	0.00%	0.00%	0.00%	0.21%	0.21%	99.79%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.21%	0.21%	99.79%	100.00%	
Traffic Safety Commission									
541830	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
University of Washington (UW)									
236220	0.00%	0.00%	0.00%	0.00%	0.05%	0.05%	99.95%	100.00%	
237310	0.02%	0.00%	33.42%	0.00%	0.02%	33.46%	66.54%	100.00%	
238120	0.00%	45.90%	45.62%	0.00%	0.00%	91.52%	8.48%	100.00%	
238130	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238140	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	
238150	0.00%	0.00%	0.00%	0.00%	0.40%	0.40%	99.60%	100.00%	
238160	0.00%	0.33%	0.00%	0.00%	42.50%	42.83%	57.17%	100.00%	
238210	0.00%	0.00%	0.00%	0.00%	89.28%	89.28%	10.72%	100.00%	
238220	0.00%	0.00%	0.00%	0.29%	66.50%	66.79%	33.21%	100.00%	

NAICS	Black	Hispanic	Asian	Native American	White Women	MWBE	Non-MWBE	TOTAL
238290	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
238310	0.00%	0.00%	0.00%	0.00%	1.36%	1.36%	98.64%	100.00%
238320	0.62%	0.00%	21.91%	0.00%	9.85%	32.37%	67.63%	100.00%
238330	0.00%	0.00%	0.00%	0.00%	0.44%	0.44%	99.56%	100.00%
238350	0.00%	0.26%	0.01%	55.37%	0.20%	55.84%	44.16%	100.00%
238910	0.00%	0.34%	0.00%	0.01%	47.38%	47.72%	52.28%	100.00%
238990	0.00%	0.00%	0.01%	0.00%	26.43%	26.45%	73.55%	100.00%
332322	0.00%	0.00%	16.51%	0.00%	0.00%	16.51%	83.49%	100.00%
423430	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
541310	0.00%	0.00%	0.03%	0.00%	0.00%	0.03%	99.97%	100.00%
541330	0.00%	0.11%	1.85%	0.00%	8.74%	10.69%	89.31%	100.00%
541611	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
562910	0.00%	0.00%	0.00%	2.08%	6.09%	8.16%	91.84%	100.00%
TOTAL	0.00%	0.51%	1.23%	1.98%	19.94%	23.67%	76.33%	100.00%
Utilities and Transportation Commission								
541830	0.00%	0.00%	26.87%	0.00%	0.00%	26.87%	73.13%	100.00%
TOTAL	0.00%	0.00%	26.87%	0.00%	0.00%	26.87%	73.13%	100.00%
Washington State Patrol								
517312	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

Source: CHA analysis of State of Washington data

State of Washington Disparity Study 2019	