

Contract Compliance Division

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The Oklahoma Department of Transportation appreciates all of our contracting and consulting partners for candidly participating in interviews and completing surveys for the 2021 ODOT Disparity Study.

The Study listed various suggestions to better the program. Some are:

- Conduct targeted outreach to underrepresented DBEs which is especially needed for Black and Hispanic firms which are not participating in the DBE program currently.
- Expand technical assistance and supportive service options
- Adopt a pilot Mentor-Protégé Program

ODOT strives to ensure equal opportunities and to level the playing field for Disadvantaged Business Enterprises by providing full and meaningful participation opportunities on our federally funded projects. We are thankful for this study and look forward to collaborating with our partners to develop innovative solutions like those suggested to strengthen our program.

Oklahoma Department of Transportation Disparity Study 2021







OKLAHOMA DEPARTMENT OF TRANSPORTATION DISPARITY STUDY

2021

Colette Holt & Associates

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About the Study Team

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

Resolute PR, LLC is an ODOT certified Disadvantaged Business Enterprise specializing in public relations and marketing for a wide range of industries, including transportation. With over 15 years of experience, President Nicole Morgan has in depth experience with community outreach and public involvement. She understands that the voice of the community is essential. Resolute, rooted in Oklahoma, assisted with community outreach and anecdotal data collection for the disparity study.

Acknowledgments

We wish to express special appreciation to Jenny Allen, Kellye Johnson and the staff at the Oklahoma DOT for their assistance in conducting this study.

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I. EXECUTIVE SUMMARY

Colette Holt & Associates ("CHA") was retained by the Oklahoma Department of Transportation ("Department" or "ODOT") to perform a disparity study of its contracts funded by the Federal Highway Administration in conformance with strict constitutional scrutiny and the Disadvantaged Business Enterprise ("DBE") program regulations at 49 C.F.R. Part 26 ("Part 26"). We determined ODOT's utilization of Disadvantaged Business Enterprises (collectively "DBEs") during fiscal years 2015 through 2019; the availability of these firms as a percentage of all firms in ODOT's geographic and industry market areas; and any disparities between ODOT's utilization of DBEs and DBE availability. We further analyzed disparities in the wider Oklahoma construction economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We also gathered qualitative data about the experiences of minority- and woman-owned firms in obtaining ODOT's contracts and the associated contracts. Based on these findings, we evaluated ODOT's programs for conformance with constitutional standards, national best practices, and DBE program regulations. Based on the results of these extensive analyses, we provide recommendations for the DBE program.

The methodology for this study embodies the constitutional principles of strict constitutional scrutiny, the requirements of the DBE regulations, United States Department of Transportation ("USDOT") Guidance and best practices for DBE programs. The CHA approach has been specifically upheld by the federal courts. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies.

A. Summary of Strict Constitutional Standards Applicable to ODOT's Disadvantaged Business Enterprise Program

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

Strict scrutiny analysis has two prongs:

1. The government must establish its "compelling interest" in remediating race discrimination by current "strong evidence" of the persistence of

- discrimination. Such evidence may consist of the entity's "passive participation" in a system of racial exclusion.
- 2. Any remedies adopted must be "narrowly tailored" to that discrimination; the program must be directed at the types and depth of discrimination identified. ¹

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

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

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

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

In *Adarand v. Peña*,² the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the USDOT DBE program.³ Just as in the state and local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence.⁴

Most federal courts have subjected preferences for Woman-Owned Business Enterprises to "intermediate scrutiny". ⁵ Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related to

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

^{2.} Adarand v. Peña, 515 U.S. 200 ("Adarand I") (1995).

^{3. 49} C.F.R. Part 26.

^{4.} See, for example, Croson, 488 U.S. at 492-493; Adarand I, 515 U.S. 200, 227; see generally Fisher v. University of Texas, 133 S. Ct. 2411 (2013).

^{5.} See, for example, Builders Ass'n of Greater Chicago v. County of Cook, Chicago, 256 F.3d 642 (7th Cir. 2001). iii

the objective".⁶ The quantum of evidence necessary to satisfy immediate scrutiny is less than that required to satisfy strict scrutiny. However, some appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program⁷ or held that the results would be the same under strict scrutiny.⁸

To comply with *Adarand*, Congress reviewed and revised the DBE program statute⁹ and regulations¹⁰ for federal-aid contracts in the transportation industry. The program governs ODOT's receipt of federal funds from the Federal Highway Administration ("FHWA"). To date, every court that has considered the issue has found the regulations to be constitutional on their face.¹¹ These cases provide important guidance to ODOT about how to narrowly tailor its DBE program.

All courts have held that Congress had strong evidence of widespread racial discrimination in the construction industry. Relevant evidence before Congress included:

- Disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms;
- Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
- The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
- Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers, and sureties against minority contractors.¹²

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

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

^{8.} Western States Paving Co., Inc. v. Washington State Department of Transportation, 2013 W.L.1607239 at *13 fn.6 (9th Cir. 2005).

See the Transportation Equity Act for the 21st Century ("TEA-21"), Pub. L. No. 105-178 (b)(1), June 22, 1998, 112 Stat. 107, 113.

^{10. 49} C.F.R. Part 26.

^{11.} See, for example, Midwest Fence Corporation v. Illinois DOT, 840 F.3d 932 (7th Cir. 2016); Northern Contracting, Inc. v. Illinois, 473 F.3d 715 (7th Cir. 2007); Associated General Contractors of America, San Diego Chapter, Inc., v. California Department of Transportation, 713 F. 3d 1187, 1198 (9th Cir. 2013); Western States Paving Co., Inc. v. Washington Department of Transportation, 407 F.3d 983, 994 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006); Adarand Constructors, Inc. v. Slater, 228 F.3d 1147 (10th Cir. 2000) ("Adarand VII"), cert. granted then dismissed as improvidently granted, 532 U.S. 941, 534 U.S. 103 (2001); M.K. Weeden Construction v. State of Montana, 2013 WL 4774517 (D. Mont.) (September 4, 2013).

^{12.} Western States, 407 F.3d at 992-93.

Next, the regulations were facially narrowly tailored. Unlike the prior program, ¹³ the new Part 26 provides 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.
- The goal may be adjusted to reflect the availability of DBEs "but for" the effects of the DBE program and of discrimination.
- 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.
- The use of quotas and setasides is limited to only those situations where there is no other remedy.
- The goals are to be adjusted during the year to remain narrowly tailored.
- Absent bad faith administration of the program, a recipient cannot be penalized for not meeting its goal.
- Exemptions or waivers from program requirements are available.
- The presumption of social disadvantage for racial and ethnic minorities and women is rebuttable, "wealthy minority owners and wealthy minority firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage."¹⁴

These elements have led the courts to conclude that the program is narrowly tailored on its face. First, the regulations place strong emphasis on the use of raceneutral measures that assist all small firms to achieve minority and women participation. A recipient must also estimate the portion of the goal it predicts will be met through race-neutral and race-conscious means (contract goals). This requirement has been central to the holdings that the DBE regulations meet narrow tailoring. Further, a recipient may terminate race-conscious contract goals if it meets its annual overall goal through race-neutral means for two consecutive years. Finally, the authorizing legislation is subject to Congressional reauthorization that will ensure periodic public debate.

^{13.} The DBE program regulation in effect prior to March of 1999 was set forth in 49 C.F.R. Part 23.

^{14.} Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d. 964, 973 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

^{15. 49} CFR §26.45(f)(3).

^{16.} See, e.g., Sherbrooke, 345 F.3d. at 973.

In 2015, Congress reauthorized the DBE program and again concluded that the evidence before it "provided a strong basis" to continue the program. ¹⁷

B. ODOT's Disadvantaged Business Enterprise Program

1. Overview of ODOT's Disadvantaged Business Enterprise Program

The Oklahoma Department of Transportation receives financial assistance from the United States Department of Transportation through the FHWA. As a condition of receipt, ODOT must administer a DBE program in good faith pursuant to 49 C.F.R. Part 26.

ODOT serves as the sole certifying member of the State of Oklahoma's Unified Certification Program ("OUCP"). Among other criteria, to qualify for DBE certification an applicant firm must demonstrate that it is a for-profit small business concern and at least 51 percent owned and controlled by socially and economically disadvantaged individuals. The work performed by certified DBEs must meet the North American Industry Classification System ("NAICS") codes for the types of services to be performed. Certified firms are listed in the OUCP Directory of Certified Firms available online.

ODOT sets a triennial DBE goal using the Part 26 two-step goal-setting process. ¹⁸ Under Step One, ODOT must calculate DBE availability for its federally assisted contracts based upon demonstrable evidence. Under Step Two, ODOT must examine all relevant evidence for consideration of a possible adjustment to the base figure to reflect the effects of the DBE program and the level of participation that would be expected but for discrimination. ODOT must also project what portions of the overall goal will be met through race-neutral and race-conscious means. For Federal Fiscal Years 2020 to 2022, ODOT established an overall goal for FHWA funded contracts of 9.33 percent, of which, 5.78 percent is to be achieved through "race-neutral" measures and 3.55 percent is to be achieved through race-conscious contract goals.

ODOT's Civil Rights Division ("CRD" or the "Division") administers its DBE program. The CRD Manager serves as ODOT's DBE Liaison Officer ("DBELO"). The DBELO works with CRD staff to administer and implement the DBE program.

ODOT's program contains the required elements to comply with the DBE regulations, including setting DBE contract goals on appropriate contracts; requir-

^{17.} Fixing America's Surface Transportation Act (Fast Act), Pub. L. No. 114-94, Section 1101 (b), 129 Stat. 1323-1325 (23 U.S.C. 101 *et. seq.*) (2015).

^{18.} The overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on USDOT contracts. The goal must reflect ODOT's determination of the level of DBE participation it would expect absent the effects of discrimination. 49 C.F.R. §26.45(b).

ing documentation of program compliance from bidders/proposers such as demonstrating how they will meet contract goals or documenting their good faith efforts to do so; evaluating compliance efforts; administering the program through policies and procedures; ensuring prompt payment and release of retainage obligations are met; conducting field audits to ensure certified firms are performing a commercially useful function; utilizing a software program for contract compliance and monitoring; and implementing a small business element.

ODOT provides outreach and training opportunities that include topics such as tax preparation, financial planning, work zone and flagging, and job skills. ODOT conducts free training and events for DBEs and the general public, which are posted on the ODOT website and on websites of participating ODOT partners. ODOT also offers a number of training and assistance programs to assist DBEs.

ODOT provides its DBE program staff with substantive training about updates or changes to the DBE program, DBE forms, processes and procedures. Where appropriate, FHWA personnel participate in these sessions.

CRD also has created a DBE Advisory Board ("Board"), which is scheduled to meet four times each year, to work with ODOT and FHWA. The Board is intended to facilitate communication and relationships between DBE firms, ODOT, prime contractors and FHWA; identifies areas of training to enhance DBEs' capabilities; facilitates opportunities for DBE firms; initiates improvements designed to make the program stronger; and advises ODOT on suggested changes to the DBE program, policies, specifications, and special provisions.

2. Experiences with ODOT's Disadvantaged Business Enterprise Program

To explore the experiences of businesses seeking opportunities on ODOT contracts, we solicited input from 98 individuals about their experiences and solicited their suggestions for changes. We also collected written comments from 120 businesses about their experiences with the DBE program through an electronic survey. The following are summaries of the issues discussed during the interviews and raised in the written survey comments.

a. Business Owner Interviews

Developing industry networks: The highway construction business was described as driven in significant ways by relationships. The DBE program has facilitated these connections. Familiarity and trust are essential to doing business.

DBE Program outreach: Many DBEs reported that ODOT's program works well and has provided opportunities for subcontracting. Outreach events and networking sessions were helpful to establishing relationships with large prime contractors.

ODOT's Business Support Services: Many interviewees found the Department's technical assistance and supportive services efforts helpful. However, some thought additional training and support in certain areas, such as safety and administrative services, were needed. Many large prime firms also urged more training for DBEs.

Mentor-Protégé Relationships: Several DBEs suggested a formal mentor-protégé program as one method to increase their capacities. Some major prime firms had participated in such programs and also recommended ODOT develop an initiative. One participant cautioned that ODOT's pricing pressure on bidders militated against adding any unreimbursed costs that might be associated with the program.

ODOT's DBE Policy and Procedures: Several DBEs complimented the Department on the program, although a few others reported less than positive experiences. Several DBEs had experienced a lack of communication and coordination between the CRD and other ODOT departments.

Obtaining ODOT Work: Most woman and minority owners found contract goals essential to obtaining work and growing their businesses. Some DBE design firm owners found the program to be less useful than those in the construction part of the industry. DBEs that had received awards as prime contractors reported good experiences with the Department.

Obtaining Private Work: A few DBEs had been solicited for contracts without DBE goals.

Supporting DBE Prime Contract Awards: Additional focus on reducing barriers to DBEs as prime contractors was urged by several owners. "Unbundling" contracts to make them smaller and/or less complex is one method to facilitate prime awards that was suggested by participants. Several large non-DBEs agreed that more emphasis on helping DBEs to obtain small prime awards— which would be race-neutral participation— would be welcome. Some urged the Department to consider adding a small business setaside to its program. One representative raised the caveat of the size of such a contracting pool.

Meeting DBE Contract Goals: Most prime firms were able to meet DBE contract goals. However, some bidders found meeting goals to be a challenge. Changes to DBE utilization plans required by changes in the scope of the project were reported to have been approved by ODOT. Some interviewees

questioned how the Department sets DBE contract goals. Prime bidders agreed with DBEs that they tend to repeatedly use the same firms. The DBE Directory was reported to contain firms that do not regularly bid. Decisions by the Department about its specifications can also undercut prime bidders' efforts to utilize DBEs. Design firms in particular faced special challenges with the small pool of available DBEs.

b. Business Owner Survey Comments

Written statements about experiences with the DBE Program from the 120 businesses that responded to the anecdotal survey were consistent with those obtained in the interviews. Many expressed support for the program. However, comments also indicated that some improvements could be made to facilitate relationships between DBEs and large firms, such as providing more training and supportive services, reducing contract size and complexity and facilitating subcontractors to take on more work as primes.

Experiences with ODOT's DBE Policy and Procedures:

- DBEs strongly supported the program. Minority and woman respondents viewed the program and goals as necessary to level the playing field.
- "Unbundling" contracts to make them smaller in order to increase access to contracting opportunities was one method suggested to increase opportunities for smaller firms.
- Some non-certified woman-owned firms owners indicated that more program compliance is needed. The perception is that some companies are "fronts" that do not qualify for participation in the program.
- Some respondents reported difficulty in keeping up with certification paperwork.
- Respondents offered suggestions to enhance the program.
 Professional services firms thought more could be done to include them and specific minority groups in the program. Others suggested that more could be done to ensure DBE participation.

ODOT's Business Support Services:

- Many DBE respondents reported good experiences with ODOT's business support services.
- Mentor-protégé programs and partnerships were seen as important approaches to help DBEs compete for larger contracts. Some prime firms reported favorable experiences with mentoring DBE firms.

Several DBE and non-DBE firms reported experiences with mentorprotégé programs that were less positive.

- Many DBE respondents requested that ODOT provide additional support to facilitate relationship building between subcontractors/ subconsultants and prime contractors/consultants.
- DBE respondents suggested that more assistance with bonding, financing and insurance was needed to create access to opportunities.

C. Utilization, Availability and Disparity Analyses of ODOT's Contracts

This Study examined ODOT's contract and procurement data dollars for the fiscal years 2015 through 2019. The Initial Contract Data File contained 2,102 contracts. Because of the large number of contracts, CHA constructed a random sample of 450 contracts. Because these contract files did not have a complete set of variables needed to perform the quantitative analyses, CHA reconstructed the missing data.

After contacting prime vendors and taking other steps to obtain a complete set of variables, the Final Contract Data File ("FCDF") contained 349 prime contracts and 1,706 subcontracts. The total net dollar value of prime contracts was \$1,221,522,596; the total net dollar value of subcontracts was \$475,477,246. The Final Contract Data File was used to determine the geographic and product markets for the analyses, and to estimate the utilization of DBEs on the Department's construction and design contracts. We then used the FCDF, in combination with other databases to calculate DBE unweighted and weighted availability in the Department's marketplace. Weighting availability results in a more accurate picture of which firms are available to participate in the agency's opportunities. For example, high availability in a NAICS code in which minimal dollars are spent would give the impression that there are more DBEs that can perform work on agency contracts than are actually ready, willing and able. Conversely, a low availability in a high dollar scope would understate the potential dollars that could be spent with DBEs. ¹⁹

The following tables present key results of the data analysis.

^{19.} This is why the USDOT "Tips for Goal Setting" urges recipients to weight their headcount of firms by dollars spent. See Tips for Goal-Setting in the Disadvantaged Business Enterprise Program, https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

1. Utilization and Availability Analysis for ODOT Contracts

Table 1-1 presents data on the 41 NAICS codes contained in the Department's Final Contract Data File. The third column represents the share of all contracts to firms performing work in a particular NAICS code. The fourth column presents the cumulative share of ODOT spending from the NAICS code with the largest share to the NAICS code with the smallest share.

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

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237310	Highway, Street, and Bridge Construction	80.0%	80.0%
238910	Site Preparation Contractors	4.9%	84.9%
541330	Engineering Services	4.4%	89.2%
561990	All Other Support Services	1.9%	91.2%
237110	Water and Sewer Line and Related Structures Construction	1.2%	92.4%
561730	Landscaping Services	1.2%	93.5%
541370	Surveying and Mapping (except Geophysical) Services	0.9%	94.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.9%	95.4%
238120	Structural Steel and Precast Concrete Contractors	0.8%	96.2%
541380	Testing Laboratories	0.8%	97.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.5%	97.5%
238990	All Other Specialty Trade Contractors	0.5%	98.0%
484110	General Freight Trucking, Local	0.4%	98.4%
541620	Environmental Consulting Services	0.3%	98.7%
237990	Other Heavy and Civil Engineering Construction	0.2%	98.9%
238320	Painting and Wall Covering Contractors	0.2%	99.1%
541690	Other Scientific and Technical Consulting Services	0.2%	99.3%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%	99.4%
238110	Poured Concrete Foundation and Structure Contractors	0.1%	99.5%
444190	Other Building Material Dealers	0.1%	99.6%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
327992	Ground or Treated Mineral and Earth Manufacturing	0.1%	99.7%
333120	Construction Machinery Manufacturing	0.1%	99.8%
541990	All Other Professional, Scientific, and Technical Services	0.1%	99.8%
238390	Other Building Finishing Contractors	0.1%	99.9%
237130	Power and Communication Line and Related Structures Construction	0.03%	99.9%
541320	Landscape Architectural Services	0.02%	99.93%
238140	Masonry Contractors	0.02%	99.95%
926120	Regulation and Administration of Transportation Programs	0.01%	99.96%
541720	Research and Development in the Social Sciences and Humanities	0.01%	99.97%
561320	Temporary Help Services	0.01%	99.97%
238130	Framing Contractors	0.01%	99.98%
541921	Nonscheduled Chartered Passenger Air Transportation	0.01%	99.99%
238350	Finish Carpentry Contractors	0.003%	99.989%
238290	Other Building Equipment Contractors	0.003%	99.992%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.003%	99.995%
327320	Ready-Mix Concrete Manufacturing	0.002%	99.997%
236220	Commercial and Institutional Building Construction	0.001%	99.998%
541611	Administrative Management and General Management Consulting Services	0.001%	99.999%
541350	Building Inspection Services	0.001%	99.999%
541420	Industrial Design Services	0.0005%	99.9999%
524126	Direct Property and Casualty Insurance Carriers	0.0001%	100.0000%
TOTAL			100.0%

Source: CHA analysis of Oklahoma Department of Transportation data

To determine the relevant geographic market area, we applied the standard of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.²⁰ Location was

determined by ZIP code and aggregated into counties as the geographic unit. The contracts ODOT issued to firms located in the State of Oklahoma accounted for 87.6 percent of all dollars spent by ODOT during the study period. Therefore, the state was determined to be the geographic market for ODOT, and we limited our analysis to firms in Oklahoma. ²¹

Having limited the FCDF to those firms within the Department's geographic market, the next step was to determine the dollar value of ODOT's utilization of DBEs²² as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

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

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

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
236220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237110	0.0%	2.3%	0.0%	4.1%	1.5%	6.4%	92.1%	100.0%
237130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237310	0.0%	0.4%	0.3%	1.2%	11.3%	1.9%	86.9%	100.0%
237990	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238120	0.0%	52.5%	0.0%	0.0%	0.0%	52.5%	47.5%	100.0%
238140	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238210	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	99.6%	100.0%
238220	0.0%	0.0%	0.0%	0.0%	31.5%	0.0%	68.5%	100.0%
238290	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238350	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
238390	0.0%	0.0%	0.0%	97.9%	0.0%	97.9%	2.1%	100.0%

^{20.} National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, p. 49. Washington, DC: The National Academies Press. https://doi.org/10.17226/14346. ("National Disparity Study Guidelines").

^{21.} Constraining the study to firms located in Oklahoma had the unintended consequence of eliminating from the study the one Black-owned firm that received contracts from ODOT.

^{22.} We use the term "DBEs" to include firms owned by racial or ethnic minorities and White females that are not certified as DBEs by ODOT. This casts the "broad net" upheld by the courts and recommended in the USDOT Guidance.

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
238910	0.0%	0.0%	0.0%	9.6%	10.3%	9.6%	80.1%	100.0%
238990	0.0%	0.0%	0.0%	4.4%	3.9%	4.4%	91.7%	100.0%
327320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327992	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332999	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
333120	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
444190	0.0%	0.0%	0.0%	96.7%	0.0%	96.7%	3.3%	100.0%
484110	0.0%	17.9%	0.0%	72.3%	5.8%	90.2%	4.0%	100.0%
484220	0.0%	47.1%	0.0%	47.8%	0.0%	94.9%	5.0%	100.0%
524126	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541330	0.0%	1.5%	2.1%	5.6%	15.4%	9.2%	75.4%	100.0%
541350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541370	0.0%	0.0%	0.0%	9.0%	46.3%	9.0%	44.7%	100.0%
541380	0.0%	0.9%	0.0%	0.0%	17.9%	0.9%	81.2%	100.0%
541420	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541611	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541620	0.0%	3.6%	3.1%	0.0%	19.5%	6.7%	73.8%	100.0%
541690	0.0%	0.0%	0.0%	0.0%	14.1%	0.0%	85.9%	100.0%
541720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541921	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
541990	0.0%	0.0%	0.0%	3.1%	18.3%	3.1%	78.6%	100.0%
561320	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
561730	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	48.3%	100.0%
561990	0.0%	0.0%	46.4%	9.8%	0.3%	56.2%	43.5%	100.0%
926120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.9%	1.4%	2.6%	11.7%	4.9%	83.4%	100.0%

Source: CHA analysis of Oklahoma Department of Transportation data

Using the modified "custom census" approach to estimating availability and the further assignment of race and gender using the FCDF, the Master DBE

Directory and other sources, we determined the unweighted availability of DBEs in ODOT's market area. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.

Table 1-3: Unweighted DBE Availability for ODOT Contracts

Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
0.4%	0.2%	1.4%	1.3%	3.4%	5.4%	94.6%	100.0%

Source: CHA analysis of Oklahoma Department of Transportation data; Hoovers; CHA Master Directory

We next determined the aggregated availability of DBEs, weighted by the Department's spending in its geographic and industry markets. Table 1-4 presents these results for all product sectors combined for the racial and gender categories. The overall, weighted DBE availability results can be used by ODOT as its Step One base figure in calculating its triennial DBE goal under 49 C.F.R. §26.459(c). This approach has been accepted by USDOT.

Table 1-4: Aggregated Weighted Availability

Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
0.8%	1.8%	0.4%	7.0%	8.6%	18.5%	81.5%	100.0%

Source: CHA analysis of Oklahoma Department of Transportation data; Hoovers; CHA Master Directory

2. Disparity Analysis of DBEs for ODOT Contracts

At the Department's request, ²³ we next calculated disparity ratios for total DBE utilization compared to the total weighted availability of DBEs, measured in dollars paid.

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

$$DR = U/WA$$

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

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to mea-

^{23.} We note that neither Tenth Circuit Court of Appeals case law nor USDOT has required recipients outside the Ninth Circuit Court of Appeals to undertake disparity testing, since Congress has already determined there is discrimination in the market for federally assisted transportation contracts. https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/western-states-paving-company-case-q-and-a.

sure 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, 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

- ‡ Connotes these values are substantively significant. Courts have ruled the disparity ratio less or equal to 80 percent represent disparities that are substantively significant. (See Footnote 24 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 1-4 presents the calculated disparity ratios for construction contracts for each demographic group.

Table 1-5: Disparity Ratios by Demographic Group

	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE
Disparity Ratio	0.0% [‡]	52.6% [‡]	356.5%	37.3% ^{*‡}	136.7%*	90.0%	102.3%

Source: CHA analysis of Oklahoma Department of Transportation data

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

^{*} Indicates statistical significance at the 0.05 level ‡ Indicates substantive significance

^{24.} 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.").

^{25.} 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.

We found substantively significant disparities for Black, Hispanic, and Native American firms. While there were not substantively significant disparities for Asian and White woman firms, a deeper analysis presented evidence that the high utilization for these two groups relative to their weighted availability might be caused by the unusual level of concentration of contract success among a few firms in a small number of industries. This suggests that while the Department's program has succeeded in breaking down barriers to Asian and White woman participation on ODOT contracts, opportunities are highly concentrated amongst a small group of firms.

D. Analysis of Economy-Wide Race and Gender Disparities in ODOT's Market

Evidence of the experiences of minority- and woman-owned firms outside the DBE program is relevant and probative of the likely results of ODOT adopting a race-neutral program, because contracting diversity programs are rarely imposed outside of specific government agencies. To examine the outcomes throughout the Oklahoma construction industry, we explored two Census Bureau datasets and the government and academic literature relevant to how discrimination in ODOT's industry market and throughout the wider Oklahoma construction economy affects the ability of minorities and women to fairly and fully engage in ODOT's prime contract and subcontract opportunities.

We analyzed the following data and literature:

- Construction Data from the Census Bureau's American Community Survey from 2015 through 2019. This rich data set establishes with greater certainty any causal links between race, gender and economic outcomes. We employed a multiple regression statistical technique to examine the rates at which minorities and women form firms. In general, we found that even after considering potential mitigating factors, differentials exist between the business formation rates by non-Whites and White women compared to White males. Further, the data indicate differentials in wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect non-Whites and White women entrepreneurs.
- Construction Sector Data from the Census Bureau's 2017
- Annual Business Survey from 2017. This dataset indicated large disparities between DBE firms and non-DBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), and the payroll of employer firms.

- Surveys and literature on barriers to access to commercial credit and the
 development of human capital further reports that minorities continue to
 face constraints on their entrepreneurial success based on race. These
 constraints negatively impact the ability of firms to form, to grow, and to
 succeed.
- These results support the conclusions drawn from the anecdotal interviews and analysis of ODOT's contract data that DBEs face obstacles to achieving success on construction contracts.

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

E. Anecdotal Evidence

In addition to quantitative data, anecdotal evidence of firms' marketplace experiences is relevant to evaluating whether the effects of current or past discrimination continue to impede opportunities for DBE firms such that race-conscious contract goals are needed to ensure equal opportunities to compete for ODOT contracts. To explore this type of anecdotal evidence, we received input from 98 participants in small group business owner interviews. We also received 120 responses to an electronic anecdotal survey and written comments during the study period.

1. Business Owner Interviews

The following are brief summaries of the views expressed by numerous participants.

- Several minority and woman owners reported that they experience negative assumptions about their competency and capabilities.
- Some felt there is a stigma to being a certified firm.
- Several female owners reported they still suffer poor treatment, sexist attitudes, hostile work environments and outright harassment.
- Several had experienced stereotypical assumptions about their role and authority. It was not uncommon for woman owners to be dismissed or ignored. A number had passed up work because of the hostile environment. Sending in a White male to deal with a prime contractor was one strategy to address sexist situations; other women refused to use

such a strategy to overcome resistance and assumptions. However, some woman-owners had not experienced gender-based barriers and a few other women stated that younger representatives from large non-DBE firms were less likely to harbor biased assumptions.

 Several DBEs stated that once they were able to get work, concerns about their abilities were assuaged.

2. Anecdotal Survey

Results from the anecdotal survey were similar to those observed in the interviews. Responses among minority- and woman-owned firms to the closed-ended questions indicate that almost a third (31.7 percent) still experience barriers to equal contracting opportunities. More than a quarter (28.3) have their competency questioned because of their race or gender. Almost 17 percent experience job-related sexual or racial harassment.

Responses to the survey's open-ended questions expressed these experiences in further detail. The following is a summary of the written responses received.

- Minority and woman firms related that they continue to experience discriminatory attitudes and behaviors, stereotyping and negative perceptions of their skills and qualifications based on race and gender. These racial and gender biases negatively affected their ability to obtain contracts.
- The experiences of several Black respondents were especially negative.
- Many White women had also suffered gender bias. Several woman business owners related instances of overt sexism and harassment that impact their business opportunities. Several woman-owned firms, however, noted that barriers were broken down over time.
- Many minority and women business owners felt excluded from the networks necessary for success. Entrenched relationships, and "good ole boy" networks and lack of access to information often limited opportunities for DBEs. These barriers extended to agency staff.
 Respondents reported they were unable to gain access to information and communicate with key Department decision makers.
- Lack of access to capital and financial support services, particularly credit and bonding, was cited as a major impediment in taking on more work and the ability of minority and woman-owned firms to successfully compete in the highway industry.

F. Recommendations

1. Enhance Race- and Gender-Neutral Measures

The courts and the DBE program regulations require that agencies use race-neutral approaches to the maximum feasible extent to meet the triennial DBE goal. This is a critical element of narrowly tailoring the programs, so that the burden on non-DBEs is no more than necessary to achieve the Department's remedial purposes. Increased participation through race-neutral measures by DBEs will also reduce the need to set contract goals.

a. Conduct Targeted Outreach to Underrepresented DBEs

The study results indicate that Black- and Hispanic-owned DBEs are being utilized well below their availability. The dearth of Black and Hispanic participation may partly result from the lack of "feeder" DBE-type programs in smaller Oklahoma agencies, such as cities and counties, where firms would usually gain experience that would allow them to then move to the more complex projects undertaken by the state highway department.

ODOT should undertake direct, focused action to reach out to these groups. The Department should identify Black- and Hispanic-owned certified DBEs that are not working on ODOT projects. ODOT could use interviews and/or a survey to determine any barriers that may be discouraging them from participating and develop a solution.

ODOT should also identify possible construction and design businesses that are not DBE certified and encourage them to become certified.

The Department should set targets for increases in the number of DBE certified Black and Hispanic firms; increases in the dollars awarded to these firms; the number of prime and subcontracts awarded to these firms; and expansion in the variety of subindustries in which they receive awards and dollars.

An additional possible support to increase inclusion would be to encourage Black and Hispanic owners to network with groups such as the Associated General Contractors and the American Council of Engineering Companies. Both groups have active chapters in Oklahoma and can serve as resources for these firms.

b. Develop a "Quick Pay" Small Business Element

Many DBEs reported that access to working capital is a hurdle to working on Department jobs. Smoothing out cash flow can help to support their

participation. We suggest that ODOT consider a "quick pay" program for small contractors, where small contractors could invoice every two weeks.

c. Expand Technical Assistance and Supportive Services Offerings

Many DBEs and non-DBEs requested additional training for DBEs on the intricacies of doing business with ODOT. The Department provides extensive training options, but business owners mentioned they would greatly benefit from additional support in business development and technical training.

Expanding the DBE Reimbursement/Assistance Program was specifically mentioned by business owners as a useful support to increase their business development needs. The current limit of \$1000 per firm, with a limit of five firms (for a total ODOT expenditure of \$5000 per fiscal year), is clearly insufficient to meet the needs of the DBE community. The Program could be expanded to provide larger grants and grants to more firms. A significant infusion of funds would help small firms to compete for ODOT jobs.

Many large prime contractors and DBEs requested additional training for DBEs on estimating jobs, safety compliance and other skills needed to be successful on ODOT jobs. One option is to provide classes that could be taught in conjunction with local organizations such as community colleges.

d. Review DBE Program Policies and Procedures

The DBE program operates well, as a general matter. We suggest some revisions, however, based on the feedback of business owners and staff and national best practices.

- Refine good faith efforts documentation.
- Develop interdepartmental learning tools, so that each Department unit is fully conversant with the duties and processes of everyone involved with the DBE program.
- Ensure consistent program enforcement.

e. Enhance Contract Data Collection

A critical element of this study and a major challenge was data collection of full and complete prime contract and associated subcontractor records. ODOT is a large and complex organization and as is very common, it did not have all of the information needed for the analysis. ODOT has recently transitioned into AASHTOWare Project's Civil Rights and Labor modules since we began our research for this report. Based on our experiences collecting

contract records for this report, we suggest the new system include the following:

- Collect full information for all firms, both prime contractors and subcontractors. This should include email addresses, NAICS codes, race and gender ownership, and DBE certification status.
- Collect all prime and subcontracting activities in one system.
- Adopt a uniform system to code contracts by funding source.
- Track all subcontracting activities, including the participation of noncertified firms during contract performance and at contract closeout.
- Conduct ongoing and follow-up training on how to use the AASHTOWare system for ODOT personnel, prime contractors and subcontractors.

2. Continue to Implement a Narrowly Tailored DBE Program

a. Use the Study to Set the Triennial DBE Goal

We recommend ODOT use the Study to set its triennial DBE goal. 49 C.F.R. §26.45 requires ODOT to engage in a two-step process to set a triennial goal for DBE participation for DBE participation. To determine the Step One base figure for the relative availability of DBEs required by §26.45(c), we suggest the Department use the DBE aggregated weighted availability findings in Chapter IV. These results are the estimates of total DBE availability that reflect the importance of each subindustry to ODOT's overall FHWA funded contracting activity.

ODOT must consider whether to adjust the Step One figure to reflect the effects of the DBE program and the level of DBE availability that would be expected in the absence of discrimination. ODOT can use past DBE utilization and the statistical disparities in the rates at which DBEs form businesses, provided in Chapter V, for a Step Two adjustment, if necessary.

b. Use the Study to Set DBE Contract Goals

The highly detailed unweighted availability estimates in Chapter IV can serve as the starting point for setting narrowly tailored contract goals that reflect the percentage of available DBEs as a percentage of the total pool of available firms. This ensures that goals are set in line with the study's availability results, which serve as the basis for race-conscious measures. ODOT should weigh the estimated scopes of the contract by the availability of DBEs in those scopes, and then adjust the result based on geography, current market conditions (for example, the volume of work currently under-

way in the market, the entrance of newly certified firms, specialized nature of the project, etc.), and progress towards the triennial DBE goal. The DBE availability could be augmented with updated DBE Directory information. These detailed, 6-digit NAICS codes can be the availability figures entered into the goal setting formula, that then adjusts those figures to the dollar weights of the specific contract scopes. While ODOT has recently transitioned to a modified contract goal setting method, we recommend that the study data- which cast the wide net affirmed by the courts and promulgated by USDOT— serve as the starting point for goal setting.

We further recommend that contract goals be reviewed when there is a change order greater than some minimum amount (e.g., ten percent). This could result in an increase, a decrease or no change in the contract goal, but it will ensure the constitutionally required flexibility that is the hallmark of a narrowly tailored goal setting and implementation methodology.

c. Adopt a Pilot DBE Mentor-Protégé Program

ODOT should consider adopting a pilot Mentor-Protégé Program for DBEs. There was a general consensus among both DBEs and non-DBEs that supporting the growth and development of DBEs is an objective that would benefit the contracting community. The DBE program regulations at 49 C.F.R. §26.35 and the Guidelines of Appendix D to Part 26 should provide the framework for the program. In addition, the General Counsel's Office at the USDOT has provided some additional guidance, and the USDOT's Office of Small Disadvantaged Business Utilization has adopted a pilot program and provided sample documents. We recognize that this level of direction and oversight will require additional resources from CRD and relevant user departments. Close monitoring of the program will be critical, but other entities have reported success with such an approach.

d. Consider a Bonding, Financing and Technical Assistance Program for DBEs

Access to bonding and working capital are major barriers to the development and success of DBEs and small firms because traditional underwriting standards have often excluded them. One approach to increase access that has proven to be effective for some agencies is to develop an agency-sponsored bonding and financing assistance program for certified firms. This goes beyond ODOT's current provision of information about outside bonding 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 company to provide a bond for firms that have successfully completed the program. Other agencies have

reported significant increases in DBEs' bonding capacities and ability to take on larger projects using this type of program.

e. Develop Performance Measures for Program Success

ODOT should develop quantitative performance measures for the overall success of the DBE program. In addition to meeting the triennial goal on an annual basis, possible benchmarks might be, increased participation by Black and Hispanic firms as prime contractors and subcontractors; increased bidding by certified firms; increased prime contract awards to certified firms; and increased "capacity" of certified firms as measured by bonding limits, size of jobs, profitability, etc.

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II. LEGAL STANDARDS FOR THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

A. Summary of Constitutional Equal Protection Standards

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

- 1. The government must establish its "compelling interest" in remediating race discrimination by current "strong evidence" of the persistence of discrimination. Such evidence may consist of the entity's "passive participation" in a system of racial exclusion.
- 2. Any remedies adopted must be "narrowly tailored" to that discrimination; the program must be directed at the types and depth of discrimination identified. ²⁶

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

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

^{26.} City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

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

- 1. The necessity of relief;²⁷
- 2. The efficacy of race-neutral remedies at overcoming identified discrimination;²⁸
- 3. The flexibility and duration of the relief, including the availability of waiver provisions;²⁹
- 4. The relationship of numerical goals to the relevant market;³⁰ and
- 5. The impact of the relief on the rights of third parties.³¹

In *Adarand v. Peña*, ³² the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the United States Department of Transportation ("USDOT") Disadvantaged Business Enterprise ("DBE") program for federally assisted transportation contracts (which applies to the Oklahoma Department of Transportation's ("ODOT" or "Department") Federal Highway Administration ("FHWA") assisted prime contracts. ³³ Just as in the state and local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence. ³⁴

Most federal courts, including the Tenth Circuit, ³⁵ have subjected preferences for Woman-Owned Business Enterprises ("WBEs") to "intermediate scrutiny". ³⁶ Gender-based classifications must be supported by an "exceedingly persuasive justification" and be "substantially related to the objective". ³⁷ The quantum of evidence necessary to satisfy immediate scrutiny is less than that required to satisfy strict scrutiny. However, some appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of

^{27.} Croson, 488 U.S. at 507.

^{28.} United States v. Paradise, 480 U.S. 149, 171 (1987).

^{29.} Id.

^{30.} Id.

^{31.} Croson, 488 U.S. at 506.

^{32.} Adarand v. Peña, 515 U.S. 200 ("Adarand I") (1995).

^{33. 49} C.F.R. Part 26 and Part 23. Contracts funded by the Federal Transit Administration were not included in this study.

^{34.} See, for example, Croson, 488 U.S. at 492-493; Adarand I, 515 U.S. 200, 227; see generally Fisher v. University of Texas, 133 S. Ct. 2411 (2013).

^{35.} *Concrete Works of Colo. Inc. v. City and County of Denver*, 36 F.3d 1513 (10th Cir. 1994).

^{36.} See, for example, Builders Ass'n of Greater Chicago v. County of Cook, Chicago, 256 F.3d 642 (7th Cir. 2001).

^{37.} *Cf. United States v. Virginia*, 518 U.S. 515, 532 n.6 (1996).

the DBE program 38 or held that the results would be the same under strict scrutiny. 39

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. ⁴⁰ The courts have held there are no equal protection implications under the Fourteenth Amendment of the United States Constitution for groups not subject to systemic discrimination. ⁴¹ In contrast to strict scrutiny and to intermediate scrutiny, rational basis means the governmental action must be "rationally related" to a "legitimate" government interest. ⁴² Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than that required for race- or gender-based measures to combat historic discrimination.

Unlike most legal challenges, the defendant bears the initial burden of producing "strong evidence" in support of its race-conscious program. ⁴³ As held by the Fifth Circuit, the plaintiff must then proffer evidence to rebut the government's case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional. ⁴⁴ "[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail."

A plaintiff "cannot meet its burden of proof through conjecture and unsupported criticism of [the government's] evidence." To successfully rebut the government's evidence, a plaintiff must introduce "credible, particularized evidence" that rebuts the government's showing of a strong basis in evidence. To example, in

^{38.} Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715, 720 (7th Cir. 2007) ("Northern Contracting III").

^{39.} Western States Paving Co., Inc. v. Washington State Department of Transportation, 2013 W.L.1607239 at *13 fn.6 (9th Cir. 2005).

^{40.} See, generally, Coral Construction Co v. King County, 941 F. 2d 910 (9th Cir. 1991); Equal. Found. v. City of Cincinnati, 128 F. 3d 289 (6th Cir. 1997).

^{41.} United States v. Carolene Products Co., 304 U.S. 144 (1938).

^{42.} Heller v. Doe, 509 U.S. 312, 320 (1993).

^{43.} Aiken v. City of Memphis, 37 F.3d 1155, 1162 (6th Cir. 1994).

^{44.} W.H. Scott Construction Co., Inc. v. City of Jackson, Mississippi, 199 F.3d 206, 219 (5th Cir. 1999). Scott, 199 F.3d at 219; Adarand Constructors, Inc. v. Slater, 228 F.3d 1147, 1166 (10th Cir. 2000), cert. granted then dismissed as improvidently granted, 532 U.S. 941 (2001) ("Adarand VII").

^{45.} Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895, 916 (11th Cir. 1997).

^{46.} Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 950, 989, cert. denied, 540 U.S. 1027 (2003) (10th Cir. 2003) ("Concrete Works III").

^{47.} *H.B. Rowe v. North Carolina Department of Transportation*, 615 F.3d 233, 241-242 (4th Cir. 2010); *Midwest Fence*, 84 F. Supp. 3d 705, 2015 W.L. 1396376*7, *affirmed*, 840 F.3d 932, 2016 WL 6543514 (7th Cir. 2016).

the challenge to the Minnesota and Nebraska DBE programs, "plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in federally assisted highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground." When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed. A plaintiff cannot rest upon general criticisms of studies or other related evidence; it must meet its burden that the government's proof is inadequate to meet strict scrutiny, rendering the legislation or government program illegal.

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

B. Elements of Strict Scrutiny

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

^{48.} Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d. 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

^{49.} Coral Construction Co. v. King County, 941 F.2d. 910, 921 (9th Cir. 1991); Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895 (11th Cir. 1997) ("Engineering Contractors II").

^{50.} Adarand VII, 228 F.3d at 1166; Engineering Contractors II, 122 F.3d at 916; Concrete Works II, 36 F.3d at 1513, 1522-1523; Webster v. Fulton County, Georgia, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999); see also Wygant v. Jackson Board of Education, 476 U.S. 267, 277-278 (1986).

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

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

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

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment...[I]f the City could show that it had essentially become a "passive participant" in a system of racial exclusion ...[it] could take affirmative steps to dismantle such a system.⁵¹

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by notions of racial inferiority or blatant racial politics. This highest level of judicial review "smokes out" illegitimate uses of race by ensuring that the legislative body is pursuing an important enough goal to warrant use of a highly suspect tool. ⁵² It also ensures that the means chosen "fit" this compelling goal so closely that there is little or no likelihood that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear

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^{51. 488} U.S. at 491-92.

^{52.} See also Grutter v. Bollinger, 539 U.S. 306, 327 (2003) ("Not every decision influenced by race is equally objectionable, and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decisionmaker for the use of race in that particular context.").

that strict scrutiny is designed to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.

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

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

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated "a strong basis in evidence for its conclusion that remedial action was necessary."⁵³

This analysis was applied only to Blacks. The Court emphasized that there was "absolutely no evidence" of discrimination against other minorities. "The random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."⁵⁴

Having found that Richmond had not presented evidence in support of its compelling interest in remediating discrimination—the first prong of strict scrutiny—the Court made two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to

^{53.} *Croson*, 488 U.S. at 510.

^{54.} *Id*.

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. The Court noted that the City "does not even know how many MBEs in the relevant market are qualified to undertake prime or subcontracting work in public construction projects." 56

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

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that 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. 57

While much has been written about *Croson*, it is worth stressing what evidence was and was not before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontractors and *no* evidence of the utilization of minority-owned subcontractors on City contracts. Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court's rejection of Richmond's reliance on only the percentage of Blacks

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^{55.} See Grutter, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

^{56.} Croson, 488 U.S. at 502.

^{57.} *Id.* at 509 (citations omitted).

^{58.} *Id.* at 502.

in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.⁵⁹

This argument has been rejected explicitly by some courts. In denying the plain-tiff's summary judgment motion to enjoin the City of New York's M/WBE construction ordinance, the court stated:

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (0.67%). There were no statistics presented regarding the number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.⁶⁰

Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In contrast, the USDOT DBE program avoids these pitfalls. 49 C.F.R. Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*."

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

^{59.} See, for example, Northern Contracting III, 473 F.3d at 723.

^{60.} North Shore Concrete and Associates, Inc. v. City of New York, 1998 U.S. Dist. Lexis 6785, *28-29 (E.D. N.Y. 1998); see also Harrison & Burrowes Bridge Constructors, Inc. v. Cuomo, 981 F.2d 50, 61-62 (2nd Cir. 1992) ("Croson made only broad pronouncements concerning the findings necessary to support a state's affirmative action plan"); cf. Concrete Works II, 36 F.3d at 1528 (City may rely on "data reflecting the number of MBEs and WBEs in the marketplace to defeat the challenger's summary judgment motion").

C. Strict Scrutiny as Applied to ODOT's DBE Program

1. Elements of the DBE Program for USDOT Assisted Contracts

In *Adarand v. Peña*, ⁶¹ the Supreme Court again overruled long settled law and extended the analysis of strict scrutiny under the Equal Protection Clause of the Fourteenth Amendment to federal enactments. To comply with *Adarand*, Congress reviewed and revised the DBE program statute⁶² and implementing regulations⁶³ for federal-aid contracts in the transportation industry.⁶⁴ The program governs ODOT's receipt of federal funds from the Federal Highway Administration.

To date, every court that has considered the issue has found the regulations to be constitutional on their face. ⁶⁵ The courts held the program to be narrowly tailored to further compelling governmental interests. The federal government's exhaustive summary of the legislative history and executive rulemaking demonstrate that the DBE regulations were adopted under the broad grant of rights authorized by Congressional statutes. ^{66,67}

All courts have held that Congress had strong evidence of widespread racial discrimination in the construction industry. The Ninth Circuit held that "[i]n light of the substantial body of statistical and anecdotal material considered at the time of TEA-21's enactment, Congress had a strong basis in evidence for concluding that, in at least some parts of the country, discrimination within the transportation contracting industry hinders minorities' ability to compete for federally funded contracts." Relevant evidence before Congress included:

^{61.} Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) ("Adarand III").

^{62.} See the Transportation Equity Act for the 21st Century ("TEA-21"), Pub. L. No. 105-178 (b)(1), June 22, 1998, 112 Stat. 107, 113.

^{63. 49} C.F.R. Part 26.

^{64.} The new DBE regulation set forth in 49 C.F.R. Part 26 ("Part 26") took effect on March 4, 1999.

^{65.} See, for example, Midwest Fence Corporation v. Illinois DOT, 840 F.3d 932 (7th Cir. 2016) ("Midwest Fence II"); Northern Contracting, Inc. v. Illinois, 473 F.3d 715 (7th Cir. 2007) ("Northern Contracting III"); Associated General Contractors of America, San Diego Chapter, Inc., v. California Department of Transportation, et. al., 713 F. 3d 1187, 1198 (9th Cir. 2013); Western States Paving Co., Inc. v. Washington Department of Transportation, 407 F.3d 983, 994 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006); Adarand VII, 228 F.3d at 1147; M.K. Weeden Construction v. State of Montana, 2013 WL 4774517 (D. Mont.) (September 4, 2013).

^{66.} Under 49 U.S.C. §322 (a), the Secretary of Transportation is authorized to prescribe regulations to execute and carry out the duties and powers of the Secretary. An officer of the Department of Transportation may prescribe regulations to carry out the duties and powers of the officer.

^{67.} The 1999 preamble states that Congress passed the statutory provision following the most thorough debate and reexamination since the inception of the program. Congress determined that real, pervasive, and injurious discrimination continued to exist and backed upon that determination with reference to a wide range of factual material.

- Disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms;
- Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
- The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
- Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers, and sureties against minority contractors.⁶⁸

Next, the regulations were facially narrowly tailored. Unlike the prior program, ⁶⁹ the new Part 26 provides 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.
- The goal may be adjusted to reflect the availability of DBEs "but for" the effects of the DBE program and of discrimination.
- 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.
- The use of quotas and set-asides is limited to only those situations where there is no other remedy.
- The goals are to be adjusted during the year to remain narrowly tailored.
- Absent bad faith administration of the program, a recipient cannot be penalized for not meeting its goal.
- Exemptions or waivers from program requirements are available.
- The presumption of social disadvantage for racial and ethnic minorities and women is rebuttable, "wealthy minority owners and wealthy minority firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage."⁷⁰

^{68.} Western States, 407 F.3d at 992-93.

^{69.} The DBE program regulation in effect prior to March of 1999 was set forth in 49 C.F.R. Part 23.

^{70.} Sherbrooke, 345 F.3d. at 973.

These elements have led the courts to conclude that the program is narrowly tailored on its face. First, the regulations place strong emphasis on the use of race-neutral means that assist all small firms to achieve minority and woman participation, and courts require that a state or local government consider race- and gender-neutral means and measures to remedy identified discrimination. ODOT must also estimate the portion of the goal it predicts will be met through race-neutral and race-conscious measures (contract goals). This requirement has been central to the holdings that the DBE regulations meet narrow tailoring. Further, a recipient may terminate race-conscious contract goals if it meets its annual overall goal through race-neutral means for two consecutive years. Finally, the authorizing legislation is subject to Congressional reauthorization that will ensure periodic public debate.

In 2015, Congress reauthorized the DBE program and again concluded that the evidence before it "provided a strong basis" to continue the program.⁷⁴

2. Narrowly Tailoring ODOT's DBE Program

Agencies that receive FHWA grants for planning or development and award prime contracts for projects that equal or exceed an accumulative amount of \$250,000.00 in a federal fiscal year must have a DBE program and must meet related requirements as an expressed condition of receiving these funds. Therefore, ODOT must establish a DBE program plan in conformance with 49 C.F.R. Part 26.

ODOT must use a two-step goal-setting process to establish its overall triennial DBE goal for FHWA funded contracts. ODOT's overall triennial goal must be based upon the relative availability of DBEs and reflect the level of DBE participation that would be expected absent the effects of discrimination.⁷⁵

Under Step 1, ODOT must determine the base figure for the relative availability of DBEs, and one approved method is to use data from a disparity study. The Under Step 2, ODOT must examine all evidence available in its jurisdiction to determine whether to adjust the base figure. ODOT must consider the current capacity of DBEs as measured by the volume of work DBEs have performed in recent years.

^{71.} See, for example, Midwest Fence II, 840 F. 3d at 937-938, 953-954; Western States Paving, 407 F.3d at 993; Sherbrooke, 345 F.3d at 972; Adarand VII, 228 F.3d at 1179.

^{72. 49} CFR §26.45(f)(3).

^{73.} See, e.g., Sherbrooke, 345 F.3d. at 973.

^{74.} Fixing America's Surface Transportation Act (Fast Act), Pub. L. No. 114-94, Section 1101 (b), 129 Stat. 1323-1325 (23 U.S.C. 101 *et. seq.*) (2015).

^{75. 49} C.F.R. §26.45(b).

^{76. 49} C.F.R. §26.45(c)(3).

To achieve the overall goal for FHWA funded contracts, ODOT must set narrowly tailored contract goals where warranted. Contract goals are based upon the availability of DBEs to perform anticipated work scopes — including the work estimated to be performed by the prime contractor — of the individual contract.⁷⁸

Programs based upon studies similar to the "custom census" methodology employed for this Report have been deemed a rich and relevant source of data, have been viewed as probative evidence of discrimination, and have been upheld repeatedly. This includes the availability analysis and the examination of disparities in the business formation rates and business earnings of minorities and women compared to similarly situated non-minority males. The Illinois Department of Transportation's ("IDOT's") DBE program was upheld based on this approach combined with other economy-wide and anecdotal evidence. The USDOT's institutional guidance for Part 26 refers approvingly to this case. IDOT's plan was based upon sufficient proof of discrimination such that race-neutral measures alone would be inadequate to assure that DBEs operate on a "level playing field" for government contracts.

The stark disparity in DBE participation rates on goals and nongoals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT's 2005 DBE goal represents a "plausible lower-bound estimate" of DBE participation in the absence of discrimination... Plaintiff presented no persuasive evidence contravening the conclusions of IDOT's studies, or explaining the disparate usage of DBEs on goals and non-goals contracts... IDOT's proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program... Having established the existence of such discrimination, a governmental entity has a compelling interest in assuring that public dollars, drawn from

^{77. 49} C.F.R. §26.45(d)(1)(i).

^{78. 49} C.F.R. §26.51 (e)(2).

the tax contributions of all citizens, do not serve to finance the evil of private prejudice.⁷⁹

In upholding the Minnesota Department of Transportation's ("Mn/DOT's") DBE program using the same approach, the Eighth Circuit opined that while plaintiff attacked the study's data and methods, it

failed to establish that better data was [sic] available or that Mn/DOT was otherwise unreasonable in undertaking this thorough analysis and in relying on its results. The precipitous drop in DBE participation in 1999, when no race-conscious methods were employed, supports Mn/DOT's conclusion that a substantial portion of its 2001 overall goal could not be met with race-neutral measures, and there is no evidence that Mn/DOT failed to adjust its use of race-conscious and race-neutral methods as the year progressed, as the DOT regulations require. ⁸⁰

More recently, the Seventh Circuit affirmed the district court and upheld the Illinois Tollway's DBE program for non-federal-aid contracts based upon a Colette Holt & Associates disparity study utilizing this methodology. Plaintiff's main objection to the defendant's evidence was that it failed to account for "capacity" when measuring DBE availability and underutilization. As is well established, "Midwest would have to come forward with "credible, particularized evidence" of its own, such as a neutral explanation for the disparity between DBE utilization and availability showing that the government's data is flawed, demonstrating that the observed disparities are statistically insignificant or presenting contrasting statistical data. [citation omitted]. Plaintiff "fail[ed] to provide any independent statistical analysis or make this showing here." Midwest offered only mere conjecture about how the defendants' studies' supposed failure to account for capacity may or may not have impacted other evidence demonstrating actual bias.

As recently as 2017, another district court found the DBE program and its implementing regulations to be constitutional.⁸² This criminal case originated from alleged fraud on the program. The court rejected defendant's challenge to USDOT's authority to promulgate the federal regulations and determined that the regulatory legislative history and executive rulemaking were made under the broad grant of rights authorized by Congressional statutes.

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^{79.} Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868 (Sept. 8, 2005), at *82 (internal citations omitted) ("Northern Contracting II"); see Croson, 488 U.S. at 492.

^{80.} Sherbrooke, 3345 F.3d at 973.

^{81.} See Midwest Fence Corp. v. U.S. Department of Transportation, 84 F. Supp. 3d 705 (N.D. III. 2015).

^{82.} *United States v. Taylor*, 232 F. Supp. 3d 741 (W.D. Penn. 2017).

In conformance with the Part 26 mandate requiring the use of race-neutral means, ODOT will need to structure its program by including an array of raceand gender-neutral measures. The requirement that the agency meet the maximum feasible portion of its goal with these measures has been central to the holdings that the DBE program satisfies narrow tailoring. These measures include, but are not limited to, the use of outreach programs, networking and training; mentor protégé programs, business development, and mentoring; providing technical, managerial and financial assistance; efforts to address prompt payment and return of retainage; assisting with bonding and insurance; simplifying bidding procedures and revising onerous or restrictive bid specifications; implementing a supportive services program; ensuring distribution of the DBE directory, through print and electronic means; introducing small contract solicitations to make contracts more accessible to smaller businesses; and assisting DBEs to develop their capacity to utilize emerging technology and conduct business through electronic media. 83 Further, administrators of DBE programs are expected to ferret out and sanction discrimination against DBEs and other small businesses by their contractors, staff, lenders, and insurance and bonding companies.

In addition to providing for significant race-neutral measures, ODOT must ensure program integrity and evince serious narrow tailoring efforts by refining its good faith efforts procedures, contract compliance, commercially useful function reviews, and reporting. These components are essential to ensure that the DBE program is narrowly tailored, flexible, and administered in good faith.

On balance, strict scrutiny does not require that every raceneutral approach be implemented and proven ineffective before race-conscious remedies may be used.⁸⁴ While ODOT must give good faith consideration to race-neutral alternatives, some degree of practicality is subsumed in the exhaustion requirement.

^{83. 49} C.F.R., §26.51(b).

^{84.} See Grutter v. Bollinger, 539 U.S. 306, 339. (2003).

III. OKLAHOMA DEPARTMENT OF TRANSPORTATION'S DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

A. Overview of the Oklahoma Department of Transportation's Disadvantaged Business Enterprise Program

The Oklahoma Department of Transportation ("ODOT") receives financial assistance from the United States Department of Transportation ("USDOT") through the Federal Highway Administration ("FHWA"). As a condition of receipt, ODOT must administer a Disadvantaged Business Enterprise ("DBE") program in good faith pursuant to 49 C.F.R. Part 26 ("Part 26").

ODOT ensures non-discrimination in the award and administration of USDOT-assisted contracts and is legally accountable for expenditures of USDOT financial assistance in conformance with Part 26 and other federal mandates. ODOT ensures that DBEs, as defined by Part 26, have an equal opportunity to receive and participate in these contracts. Implementation of the DBE program is accorded the same priority as compliance with all other legal obligations binding ODOT in its financial agreements with USDOT. ODOT distributes copies of its *DBE Program Policy*⁸⁵ throughout the agency and disseminates it to DBE and non-DBE contractors that perform work for ODOT on its USDOT-assisted contracts.

ODOT serves as the sole certifying member of the State of Oklahoma's Unified Certification Program ("OUCP"). ODOT and its OUCP partners have executed a memorandum of agreement to authorize ODOT to provide "one stop shopping" for DBE certifications recognized by all USDOT recipients in the state. ⁸⁶ Applicants seek OUCP certification to perform work financed by USDOT related to construction

^{85.} At the time of the study, ODOT's November 2019 DBE Program Plan was undergoing review by the FHWA. Updates are made periodically to comply with new Part 26 mandates and FHWA directives.

^{86.} The OUCP is comprised of non-certifying partners across the state and includes cities, towns, transit entities, airport authorities, and the University of Oklahoma.

projects, transit services, airport concessions, and professional and consultant services.

To qualify for DBE certification, an applicant firm must demonstrate that it is a for-profit small business concern that is at least 51 percent owned and controlled by one or more socially and economically disadvantaged individuals who are American citizens or lawfully-admitted permanent residents. ⁸⁷ Certification decisions are based upon the eligibility standards and procedures set forth in Part 26. The work performed by certified DBEs must meet the North American Industry Classification System ("NAICS") codes for the types of services to be performed. Certified firms are listed in the OUCP *Directory of Certified Firms* available online.

ODOT is required to set a triennial DBE goal using the Part 26 two-step goal-setting process. ⁸⁸ Under Step One, ODOT must calculate DBE availability for its federally-assisted contracts based upon demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate in its federally-assisted contracts (base figure). Under Step Two, ODOT must examine all relevant evidence for consideration of a possible adjustment to the base figure to reflect the effects of the DBE program and the level of participation that would be expected but for discrimination. ODOT must also project what portion of the overall goal will be met through race-neutral means and through race-conscious means; Part 26 requires that ODOT meet the maximum feasible portion of its overall goal using race-neutral means or measures. ⁸⁹ Before establishing its goal, ODOT must solicit public input and comments from minority organizations and industry associations concerning opportunities for DBEs and the effectiveness of ODOT's efforts to establish a level playing field for DBEs.

For Federal Fiscal Years ("FFYs") 2020 to 2022, ODOT established an overall goal⁹⁰ for FHWA funded contracts of 9.33 percent, of which 5.78 percent is to be achieved through "race-neutral"⁹¹ measures and 3.55 percent is to be achieved through race-conscious contract goals.⁹² The data used to establish the FHWA goal was derived from ODOT's bidders list for the previous three FFYs (October 1,

^{87.} Under Part 26, §26.5, a socially and economically disadvantaged individual means any individual who is a citizen or law-fully admitted permanent resident who is a member of the following groups: Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian-Americans, Women, and any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration ("SBA"), at such time as the SBA designation becomes effective.

^{88.} The overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on USDOT contracts. The goal must reflect ODOT's determination of the level of DBE participation it would expect absent the effects of discrimination. 49 C.F.R. §26.45(b).

^{89.} See Part 26, §26.51. Under §26.5, race-neutral measures are those designed to assist all small businesses, not just DBEs. This includes gender neutrality.

https://www.ok.gov/odot/documents/Approved%20DBE%20Goal%20Methodology%20%28FFY2020%2C2021%2C2022%29.pdf.

^{91.} Under Part 26, §26.5, race-neutral measures are those used to assist all small businesses, not just DBEs.

^{92.} Under Part 26, §26.5, race-conscious measures are those focused specifically on DBEs.

2015, through September 30, 2018). The bidder's list contains the number of prime contractors, subcontractors, and professional services contractors that bid or quoted successfully or unsuccessfully on USDOT-assisted prime contracts or subcontracts for these years. ⁹³

ODOT's Civil Rights Division ("CRD" or the "Division") administers its DBE program. CRD's mission is to ensure equal employment opportunity within ODOT and to level the playing field for DBEs by providing full and meaningful participation opportunities in ODOT's USDOT-assisted projects. The Division also provides guidance and information to airports and transit agencies to prevent discrimination in federal aid programs and activities.

The CRD Manager serves as ODOT's DBE Liaison Officer ("DBELO"). The DBELO works with CRD staff to administer and implement the DBE program. Division staff are responsible for:

- Implementation and oversight of the DBE program.
- Recommending and establishing policy and procedures in administration of the DBE program.
- Tracking and monitoring the agency's DBE goal.
- Setting DBE project goals on federal-aid projects, when applicable.
- Annual reporting requirements to FHWA and to the FTA.
- Providing training on DBE program requirements, processes and procedures.
- Providing support and guidance to all field divisions and airport and transit entities that are recipients of Federal funds.
- Ensuring prompt payment and return of retainage for all sub-consultants/ contractors and subrecipients.
- Contractor compliance.
- Oversight and administration of the OUCP.
- Providing guidance and information to airports and transit agencies.

In conformance with Part 26, prompt payment obligations and release of retainage obligations ⁹⁴ are set forth in USDOT-assisted contracts. ⁹⁵ ODOT's *Special Provisions for Subcontracts* require prime contractors to pay all subcontractors, material suppliers, and truckers within 15 days of the date when the prime con-

^{93.} Part 26 §26.45(c)(2) provides examples of data sources used to establish Step-1 of the goal (the base figure). A bidders list is included

^{94.} Oklahoma state law prohibits holding of retainage. OKLA STATE, tit. 61. Section 113.1.

^{95.} These clauses are both a §26.29 requirement and a contractual requirement.

tractor receives payment from ODOT. In the event that the contractor/consultant fails to comply with prompt payment requirements and all remedies have been exhausted, ODOT invokes administrative actions including, but not limited to, the withholding of solicitations and bid proposals.

ODOT recently adopted a revised goal setting process for all construction projects that use federal funds. Criteria include ODOT's current progress toward the annual DBE Goal, as well as DBE availability with respect to work types involved in the scope of the project.

If the DBELO determines a goal is appropriate, a proposal-system generated "DBE Interest Report" is consulted to determine the DBE opportunities based on work type and location. This report pulls data from ODOT's DBE directory, which are further refined to assign Heavy Construction "Specialty Codes" developed by ODOT to each DBE. In the Department's view, these more specific designations more closely describe the available DBE work than generic NAICS Codes.

The DBE Interest Report includes the following calculations to be considered by the DBELO:

 a. SC Availability = DBE by Specialty Code/Total Contractors by Specialty Code.

The DBE percentage, rounded up or down to the nearest0.5%, serves as the proposed DBE goal.

In some cases, ODOT will evaluate the calculated DBE Goal on a project-by-project basis and determine if extenuating circumstances (i.e., project type, scope, location, etc.) warrant an adjustment. If warranted, ODOT will adjust the calculated DBE goal and document any adjustments.

For projects estimated to be \$50M or greater, a representative of the local FHWA Division participates in the review and setting of the final DBE participation goal.

Once all the goals are determined for the federal projects on the bid opening, typically 60 days prior to the bid opening, the DBE Goal Committee verifies the proposed goals. The Civil Rights Division gives the final approval of each DBE goal.

The DBE goals are verified once more by the Civil Rights Division at the Pre-Advertisement meetingheld five weeks prior to the upcoming bid opening.

All bids on projects with a DBE goal greater than zero must be accompanied by the required DBE documentation at the time the bid is submitted as a matter of responsiveness. ⁹⁶ The bidder must submit a *DBE Confirmation of Intent to Subcon-*

tract Federal-Aid Projects Form in ODOT's Bidexpress. The bidder must provide the signatures of the parties' authorized representatives; the written commitment by the prime contractor to subcontract with the DBE firm; and a written commitment by the DBE firm to subcontract for work as described in its quotes; a full description of the work that each DBE intends to perform; and the dollar amount of each DBE's participation. Each item description, quantity, price, amount, and total must be mathematically reflected and equal to the total participation amount.

ODOT evaluates each DBE goal submission for accuracy. In the event that errors or discrepancies are identified in the documents, ODOT will notify the respective bidder of the issue within 24 hours following the bid opening. ⁹⁷ The bidder may be given the opportunity to resolve them. ⁹⁸

ODOT Special Provisions require the prime contractor/consultant to submit the executed subcontracts (including purchase orders, hauling agreements, or for material suppliers) for all subcontractors (DBEs and non-DBEs). Contractors are required to also use ODOT's *Construction Subcontract Assurances Agreement* template.

ODOT awards a contract only to a bidder/consultant who meets the DBE contract goal or documents its good faith efforts ("GFE") to do so. GFEs are those efforts bidders are reasonably expected to make to produce a level of participation sufficient to meet or exceed the goal. ODOT follows the GFE guidance set forth in Appendix A of Part 26 in evaluating all GFEs. ⁹⁹ GFEs must be documented through the life of the project.

If the goal cannot be met in whole or in part, the prime contractor must complete *Good Faith Efforts DBE Form 5* and include supporting documentation. If ODOT's DBELO, and or designee, determines that the bidder/consultant did not demonstrate adequate GFEs, she will notify the bidder/consultant via electronic mail. The notice provides that the bidder/consultant is entitled to administrative reconsideration.

^{96.} A responsive bid meets all requirements of the bidding documents and solicitation.

^{97.} Examples of administrative error impacting DBE program submissions include: (1) where a DBE form, DBE quote or other supporting documentation is missing signatures, or a form is not certified when submitted electronically; (2) where a DBE quote does not include a mathematical breakdown (if applicable); and (3) incorrect project information is listed on the DBE quote or supporting documentation.

^{98.} ODOT's DBE Form 6 addresses the bidding evaluation process. It indicates that the apparent first and second lowest bidders' DBE liaison listed on the ODOT form will be contacted by phone within 24 hours following the bid opening in an effort to ensure an email was received from the construction division if administrative errors were identified.

^{99.} Appendix A contains a list of types of proactive actions considered part of a GFE evaluation. However, the list is not intended to be exclusive or exhaustive. Examples include soliciting through all reasonable and available means, the interest of all certified DBEs who have the capability to perform the contract work; selecting portions of the work to be performed by a DBE in order to increase the likelihood that the goals will be achieved; providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner; negotiating with interested DBEs in good faith; not rejecting any DBE as being unqualified without sound reasons based on a thorough investigation of their capabilities; and making efforts to assist any interested DBEs in obtaining bonding, lines of credit or insurance as required by the recipient or contractor.

ODOT's independent reconsideration official is the Director of Capital Programs or designee, provided that the designee did not participate in the review of documentation that gave rise to the original determination. The consultant/bidder has three business days from the date of the notice from the DBELO to submit a request for administrative reconsideration, including a request for a hearing. The request shall include the consultant's/bidder's basis for the appeal and any supporting documentation submitted at the time of bid. Only the documentation that was presented with the bid will be considered in the paper review or the hearing. The Director will review the documentation to determine whether or not the consultant/bidder demonstrated Good Faith Efforts. If the consultant/bidder requests a hearing, then the consultant/bidder will be allowed to meet with the Director in-person, by telephone, or by virtual platform. Notice of the hearing at least two business days in advance of the hearing. If schedules permit, the parties may waive the two-day requirement. Reconsideration hearings are not open to the public. The administrative reconsideration official shall issue the final determination within five days. The determination is final.

Prime contractors must make GFEs to replace a DBE that is terminated or that has otherwise failed to complete its work on a contract with another certified DBE, to the extent required to meet the DBE contract goal. The prime contractor must obtain CRD's prior written consent demonstrating good cause ¹⁰⁰ to terminate or substitute the DBE and provide copies of new or amended subcontracts or document GFEs to obtain a DBE replacement contractor. Before the request to terminate and/or substitute a DBE, the prime contractor/consultant must give the DBE five days to respond to the notice and reason for the request. The DBELO must also be copied on the correspondence. The CRD requires that a completed *Notification Change of DBE Participant* Form as well as relevant documentation be submitted for review and approval. The prime contractor/consultant will not be entitled to any payment for work or material without ODOT's consent to the substitution.

ODOT uses AASHTOWare for contract compliance and monitoring.¹⁰¹ The system monitors construction work sites, projects and relevant documentation to ensure that work committed to DBEs at, or after, contract award (*e.g.*, as the result of modification of the contract) is actually performed by the DBEs to which the work was committed. In addition to the CRD, ODOT's Resident Engineers and field personnel, Consultant Engineers and Procurement Division monitor DBE participation.

^{100.} Good cause does not exist if the prime contractor or consultant seeks to terminate a DBE it relied upon to obtain the contract so that the prime contractor/consultant can self-perform the work. Good cause also does not exist if the prime contractor/consultant substitutes another DBE or non-DBE after contract award.

^{101.} ODOT offers system training with a live trainer.

ODOT personnel and field inspectors determine whether a certified firm is performing a commercially useful function ("CUF"). A firm performs a CUF when it is responsible for a discrete task or sequence of tasks using its own forces or by proactively supervising on-site execution of tasks. ¹⁰² The firm must be certified in the applicable NAICS code in order for the prime contractor/consultant to receive credit towards the applicable goal. ODOT uses the *Commercially Useful Function Project Site Review* Form to review DBE compliance with CUF requirements. ¹⁰³ The review is performed when the DBE starts work.

ODOT requires DBE monitoring and tracking forms. The prime contractor/consultant submits the monthly payment log by the fifteenth of the following month. CRD reviews the forms and contracts and compares the information to ODOT's internal software verification. The *Final Payment Report* is submitted at the end of a project to ensure that the DBE goal and individual DBE commitment/amounts were met. If the DBE goal and/or individual DBE commitments were not met, the CRD will contact the prime contractor/consultant to determine the cause. ¹⁰⁴

Contractors must maintain records and documents for the applicable retention period in ODOT's financial assistance agreement or at least three years after project acceptance by FHWA, whichever is longer. These records must be made available for inspection upon request by any authorized representative of ODOT or USDOT.

To meet the requirements in §26.39 that it must have small business elements in its DBE program¹⁰⁵, ODOT waives the requirement that a bidder must be "prequalified" to bid on construction contracts to the extent practicable.¹⁰⁶ This allows small businesses to bid directly as prime contractors. Waivers are permitted only on non-construction or highway maintenance contracts, or when ODOT determines it is in the best interest of the State to increase competition on individual projects of a special nature. Waivers may also be issued for right of way clearance; landscaping; wetland creation; environmental mitigation; and transportation enhancement projects.

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^{102.} To perform a CUF, the DBE must be responsible, with respect to materials and supplies used on the project/contract for, negotiating price, determining quantity and quality, ordering the material, and installing (where applicable) and for paying for the material itself. See 49 C.F.R. §26.55 (c) (1).

^{103.} The bidder must be careful not to compromise the independence or potential CUF of the DBE. Bidders may not arrange supply purchases, negotiate on behalf of a DBE, or lend equipment to DBEs.

^{104.} If the contract goal is not met before close-out, ODOT will go back-to-back to the prime for GFE documentation. Internal documents are kept on file.

^{105.} Under Part 26 §26.39, a USDOT recipient's DBE program must include an element to structure contracting opportunities to facilitate competition by small business concerns, taking all reasonable steps to eliminate obstacles to their participation.

^{106.} Prequalification is a preliminary step in the bidding process where an applicant firm is reviewed for purposes of determining whether it has the requisite resources and experience to complete the project work. There is no prequalification process for consultants.

ODOT provides extensive outreach and training opportunities that include topics such as tax preparation, financial planning, work zone and flagging, and job skills. ¹⁰⁷ ODOT conducts free training and events for DBEs and the general public, which are posted on the ODOT website and on websites of participating ODOT partners. ¹⁰⁸ The CRD issues a quarterly newsletter, *The Transporter*, which is mailed to DBEs and posted on its website. ¹⁰⁹ ODOT partners with the Oklahoma chapter of the American General Contractors Association to provide a free six month membership to new DBE firms to support DBEs' attendance at monthly luncheons to network with prime contractors. All DBEs receive news and alert blasts. ODOT also sends information blasts to the Black Caucus of the Oklahoma state legislature and to chamber of commerce offices.

ODOT also offers the Small Enterprise Training ("SET") Program conducted by its supportive services contractor in conjunction with partners such as technical schools. ¹¹⁰ The Program offers free training to Oklahoma-based companies that meet the U.S. Small Business Administration size guidelines and actively pursue ODOT contracts. SET assists DBEs and other small businesses to expand their operations in the highway construction industry and their participation in ODOT contracts. The curriculum includes technical subjects such as bidding and estimating, as well as networking and strategies for using social media.

ODOT administers the *Transportation Assistance Program*, an outreach program designed to eliminate barriers in the transportation industry and encourage partnerships with educational institutions and transportation-related entities across Oklahoma. Individuals from under-represented groups, educational institutions, and the department are the intended beneficiaries of the program. The program seeks to create awareness of transportation careers to provide opportunities to assist those individuals pursuing those careers. The Contract Compliance Officer is responsible for developing and implementing the program. It works with Career Technology and Workforce Centers throughout Oklahoma and partners with minority and female organizations to locate participants for the program.

ODOT also administers a DBE Reimbursement/Assistance Program. Funds are available in the amount of \$1000.00 per firm per federal fiscal year for up to five DBEs that have business developmental needs in the areas of accounting methods, project management, managerial assistance, personnel skills, and the like. Separate funds are available in the maximum of \$450.00 per fiscal year for four DBEs that desire to increase marketing through technology, such as developing a web-

^{107.} See Appendix E for the full list of ODOT's FY 2015-FY 2019 outreach and training events designed to assist DBEs.

^{108.} ODOT partners with the state labor department which has hosted events relevant to DBEs. It has also partnered with other airports.

^{109.} https://www.ok.gov/odot/Doing Business/Civil Rights/Civil Rights - Publications, Posters and Brochures.html.

^{110.} Under §26.35, USDOT recipients may establish a DBE business development program to assist firms in gaining the ability to compete successful in the marketplace outside the DBE program.

site or other social media forums. DBEs that provide professional services to ODOT may receive up to \$5,000.00 per firm per fiscal year to procure ODOT's required financial audit from a qualified certified public accountant. 111

ODOT's DBE Supportive Services' On-Boarding Program is designed primarily for newly certified DBEs. The program offers an orientation about the program areas within the CRD. It also includes a tour of ODOT's buildings to orient DBEs with office locations that interact with their businesses. New DBE participants are contacted by the ODOT DBE Supportive Services Coordinator.

ODOT provides its DBE program staff with substantive training. It convenes DBE conferences that include breakout sessions with information on updates or changes to the DBE program. ODOT also offers training on an as-needed basis related to the use of DBE forms, processes, procedures, and program updates. Where appropriate, FHWA personnel participate in these sessions.

CRD also has created a DBE Advisory Board ("Board"), which is scheduled to meet four times each year, to work with ODOT and FHWA. The Board is intended to facilitate communication and relationships between DBE firms, ODOT, prime contractors and FHWA; identifies areas of training to enhance DBEs' capabilities; facilitates opportunities for DBE firms; initiates improvements designed to make the program stronger; and advises ODOT on suggested changes to the DBE program, policies, specifications, and special provisions. The Board must consist of not less than 7 and no more than 13 voting agency and industry representatives originating from entities within and without ODOT. 112

B. Experiences with the Oklahoma Department of Transportation's Disadvantaged Business Enterprise Program

To explore the impacts of race- and gender-neutral contracting policies and procedures and the implementation of the ODOT's DBE program, we interviewed 98 individuals about their experiences and solicited their suggestions for changes. We

^{111.} There are three different types of reimbursement: (1) training (\$1,000); (2) website (\$450.00); and (3) financial audits (\$5,000). Reimbursement of \$6,450 per annum is available.

^{112.} The voting representatives must originate from the following areas: (a) a minimum of one certified DBE representing the construction side; (b) a minimum of one certified DBE representing the preconstruction side; (c) ODOT's DBE FHWA Supportive Services Coordinator; (d) one member of the Association of General Contractors; and (e) one member of the American Council of Engineering Companies. The Board must also include supportive role members originating from: (a) ODOT's Director; (b) ODOT's Deputy Director; (c) ODOT's Engineer Division Manager; (d) ODOT's Civil Rights Division Manager; (e) ODOT's Civil Rights Assistant Division Manager; (f) the FHWA Division Administrator; (g) the FHWA Program Support and Technical Services Team Leader; and (h) the FHWA Civil Rights Specialist. Moving forward, the Board intends to vote on new members. Current members were chosen from among those who showed up for the opening meeting.

also collected written comments from 120 businesses about their experiences with the DBE program through an electronic survey.

1. Business Owner Interviews

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

a. Developing Industry Networks

The highway construction business was described as driven in significant ways by relationships.

It is about who you know.

It depends on your relationships; it depends on who they've always used. The comfort level is the persons or the organizations they've used for many years because they have that history. Sometimes it's pretty difficult for lack of a better term, crack that nut to get inside because they're so used to it. So, it's a matter of building that relationship and sometimes it takes a long time. It took me 12 to 13 years for one company just to get to the table.

[Networking] opportunities with prime contractors would be beneficial. Just to get to know who those prime contractors are, meet face to face, put a face with a name. Help get your information out there.

The DBE program has facilitated these connections.

We're treated well as a DBE. I think some of that is our responsibility as a DBE. If we're going to ask for work as a DBE to a prime, we've got to provide value and not just be asking for work because we're a DBE. So, if you're going to build that relationship with a prime contractor, you're working with, that's our responsibility to make sure that we're bringing true value to the program. And so, for us, it's been very successful and very good for us. It just a few little tweaks I think would make it better.

Some non-DBEs agreed that familiarity and trust are essential to doing business.

You're more comfortable with a firm that you have confidence in, that you have a working relationship with. I

think it becomes more difficult for them to go out and solicit work from a potential DBE or another unfamiliar small business even. If you don't have a level of confidence that they can do the specialized work that's required and deliver it in a compressed timeframe.

b. DBE Program Outreach

Many DBEs reported that ODOT's program works well and has provided opportunities for subcontracting. Outreach events and networking sessions were helpful to establishing relationships with large prime contractors.

[ODOT's outreach has] been really positive, actually you're bringing so many primes to table, you open the door for DBEs, MBEs. To come to the outreach and get to know who the primes are, get a one-on-one. You may have those round tables and so forth. Without that, I believe that we have a long road to go because there we don't have people like yourself. That is getting that door open for us to actually meet those individuals that are in control of those different projects.

The program itself has multiple networking opportunities to get out and meet people. Also, just with the connections, you may try new contractors. They will find a DBE goal.... There's been opportunities there that we'll pick up a DBE goal but when they find out that we do what we say we're going to do, perform well, they use us for other projects. But on a pricing cost. Every now and then, they can throw a bone your way if it's not for DBE but it's basically having a working relationship with the contractor.

We'd be more than open to [more opportunities to meet prime contractors].

It's very useful for the estimators of those different companies to talk to the DBEs. Then, we can find out exactly what's on their plate and move on from there.

They have programs and events and things like that that usually aren't super well attended, but they are there and available. So, I think they do a pretty good job on that side of things.

We can do a showcase of different capabilities through the Zoom, right? You could have like a virtual mall kind of thing of DBEs.

c. ODOT's Business Support Services

Many interviewees found the Department's technical assistance and supportive services efforts helpful.

[The] free information is useful. We've actually used ODOT for a couple of training classes.... There's several different classes that are all business that we've gone through, that we've used, we've resourced.

Additional training and support in certain areas was needed.

Maybe some help developing good safety procedures.

A lot of times we may have only OSHA 10, there needs to be an OSHA 30. As a small company, that's very expensive if you've got even five to 10 people that you're trying to get through an OSHA 30 class. So that may be something else that ODOT could provide.

I can't afford to buy the Gantt chart software [for updating project schedules]. And then I figured out how to do it with Excel, but it's a very time intensive procedure that they expect to be updated, like on a monthly basis. Well, for a non-DBE prime contractor that's big, that's a matter of two buttons in, and it's all adjusted, but for me that's four hours' worth of sitting here and running the risk of making mistake to adjust it on an Excel spreadsheet to put it in. And so, because they require it, if they were to have some kind of access to that type of software, that'd be very helpful too.

Many large prime firms urged more training for DBEs.

We give them the opportunity, but then you find out they can't meet the safety standards. They haven't looked at the spec book.

Find out what is the ODOT way.

How to work the website to find the plans and the bidders and reach out to the bidders on the job sites.

What ODOT can provide, what we continually see with the newbie DBEs is just a lack of education in the industry or in the service they provide.

The subs that you tend to help though, as far do, they're ones that you work with that maybe they're branching off into doing something or they'd venture something, and you

look at their number and you go, "They missed this." Because even though we may be going to sub it, a lot of times we will work up our number in-house. So, we know what to expect.

The perfect example we had last month is we had a job that we were bidding that had 7,000 foot of fence on it. Well, there was a note buried in the plans that you had to use steel posts. Out of the four fencing quotes we got, only one of them was right. Only one of them had the steel posts included. They just assumed, ODOT bids wood post. So that's what they did. So out of the four prices, only one of them was correct. We could be a jerk and go ahead and give the subcontract to the low bidder and just expect them to perform, knowing that it's going to break them. But you don't. I mean, you make that phone call and go, "Hey, you need to look at this. You didn't catch this."

There's a lot of focus on a business plan and getting qualified for the ODOT DBE program, but a very little understanding of what service they provide, how to quote a job. I mean, I get people calling us, asking us to send them a contract on a job they never looked at. Never looking at the website and never understanding how our business even works. I think there's a huge disconnect in the DBE program and them understanding the first part of this is providing a service and knowing your business.

I'd much prefer obviously to have a DBE who has some experience and can show me directly that experience.... It's very difficult to take a chance on somebody. Because you assume that they have priced it correctly. And then they realize, they haven't priced it correctly. They didn't realize they had all these requirements that they were responsible for and that the prime doesn't provide those things for those items for them.

ODOT should provide, or hopefully could provide that type of training, that estimating training.... If we're asking DBEs to bid on our work outside of their regular region. If we're asking them to bid from North, 100 for a project, that's hundreds of miles away, they need to take into account. Okay, aside from performing the service, the material, what about housing my workforce? I have found that they don't take those things into account. And then things happen on a

project. There's either delays, weather delays, and they didn't take those things into account. So now they've moved, their people have gone on to work somewhere else. So now they don't know what to do. They need to bring in more people. There's those variables, those unknown variables that I think some of our DBEs do not know how to account for

Several DBEs suggested a formal mentor-protégé program as one method to increase their capacities.

It would be nice to put in a program like that because I think that that's how we could really facilitate the growth of DBE programs if we got into mentor protégés.

To be able to have established DBEs that have gone through some of those processes and be able to reach out to those people and ask questions or be able to be connected with those people and ask those questions is hugely beneficial.

Some major prime firms had participated in such programs and also recommended ODOT develop an initiative.

I had the chance to participate in that program as a mentor to a DBE firm. I thought it was... I mean obviously those kinds of programs are all about what the two partners, the mentor and the protégé put into it.

The way they had that program structured, where you had the quarterly reporting for some accountability, I thought it worked really well. When I participated in it, we were partnered with a firm that really took it very seriously and had some specific things they wanted to learn from our firm leadership. We put together a plan, and had to submit that for approval, and all that. Did the quarterly reporting on it. It looked like it helped them to be successful, and it also helped us to feel more comfortable partnering with them on things that we might not have considered partnering with their firm before. I kind of always use the preferred provider kind of program for sub-consultants. I won't team with just anybody, because it can destroy your project if you pick the wrong firm or whatever. You don't have a good experience. It gave us a chance to really get to know each other, and figure out what each other's strengths and weaknesses were, so that we could put together a really good team for pursuits. That kind of relationship lasts much longer than the six months or a yearlong mentor program lasts.

There's definitely DBEs that I've helped kind of navigate the website, get information on specs, point out specifics on a job that they need to pay attention to or safety requirements, just so we have a common understanding that their estimate includes what it should.

However, one participant cautioned that ODOT's pricing pressure on bidders militated against adding any unreimbursed costs.

These ODOT jobs, they don't give us fees that allow for anything extra. I mean you barely get enough fee to do the job you need to do, much less do anything extra. I mean just to be honest.

d. ODOT's DBE Policy and Procedures

Several DBEs complimented the Department on the program.

Oklahoma DBE does a great job.

My experience has solely been positive with ODOT. Of course, I'm on the pre-construction side, not construction, so I don't know if that has something to do with it. I've heard that it is a little bit different depending on what side of ODOT you're on because they are very separate sides of the house, if you will. But for pre-construction side, from top management down, they're all very supportive. They support the DBE program. And I feel that they run the DBE program very well. There's percentages provided on each solicitation based on the number of DBE consultants that are out there, depending on the services. So, ODOT has a good handle on that.... I've been awarded several DBE prime contracts through on-demand services with ODOT.

Others' experiences had not been so positive.

That's the problem with our DBE program. It's not based on the rules and the regulations here in Oklahoma. It is based on who you know, because you can fight them with the rule. This is what the regs say, you can't do this. But Oklahoma will do whatever they want.

Several DBEs had experienced a lack of communication and coordination between the Civil Right Division and other ODOT departments.

[Contract Administrators] and Civil Rights, and this might be another note for you, they don't communicate well.

None of them talk to each other.

They don't communicate well and they have different answers for the same question and they both know they have the different answers for the same question. But they won't resolve it internally.

One of my biggest issues is civil rights division and contract administration not being on the same page and both being aware of it.

e. Obtaining ODOT Work

Most woman and minority owners found contract goals essential to obtaining work and growing their businesses.

If those goals were not there, the opportunities will be very limited.

The DBE program for me on the pre-construction side has been awesome.

It does definitely help for them to go out of their way to look at something other than bottom line, especially when that's something we pride ourselves on. We do generally cost a little more, but our quality is so much higher than the next guy.

We do get work in and out of the DBE program. When our company was younger, it was highly, highly important to us, our DBE status, and that helped us to grow and it really did make a difference in the projects that we got. At this point in time, we are a larger company now. I wouldn't say it would be detrimental, but ... we would feel it still, even as a larger company.

Some DBE design firm owners found the program to be less useful than those in the construction part of the industry.

The ODOT DBE percentages, when they're included, are usually fairly small on design contracts. And so, they tend to sub out small pieces of work just enough to meet that goal. And so, there are many types of work that never get included to a DBE firm. So, as we're trying to grow our firm, we've for years done hydrology and hydraulics, years and

years and years. And so often that's held against us because that's the only type of work that the folks at ODOT think about us for. We've worked with many, many different firms, in different capacities, and some treat you better than others, but I've heard in other states, they, they at times will put in larger DBE requirements to try to help get a more meaningful piece of the work instead of just carving out minor pieces to let you do.

We don't get primes reaching out like we do with other states.

One DBE counseled others not to overly rely on the program goals.

None of the preference programs have been hugely significant in our success or progress or growth. Don't get me wrong, they've all been very helpful, but I would say only helpful, if the programs went away, our business may be impacted slightly, but we would continue to operate and do business. One of the things I believe that has helped our success has been the fact that we haven't relied on any preference program, whether it's the DBE program in Oklahoma, or Arkansas, Kansas, or any other preference program.

Another stated that whether a subcontractor is utilized was driven by price.

Price is the ultimate factor; they're not going to lose money. The contractor is not going to give money just because somebody's a DBE. There's a handful in my industry that do subcontracting just as like everybody else. There's tons of people out there and price matters and gain. Price and service.

Some DBEs had been solicited for contracts without DBE goals.

We did some work with some prime contractors with no DBE goal. They called us, "Hey, we need some help to do four diaphragms and this and that." It's been really well to work with them and because of that, they called us out to bid on the Gilcrease Expressway on a project there. Everything has been great so far, so I can't complain about it.

The last several solicitations we've been on, oh 20 to 30 teams, both with the goal and without.

They'll use me if they don't have a DBE goal simply because they don't have someone hired within that does this now.

I am getting work both as a DBE and on other projects that don't have DBE requirements from the firms that use me.

DBEs that had received awards as prime contractors reported good experiences with the Department.

No complaints and the one project we've had with ODOT as a prime contractor being DBE-certified, it's very well. They pay a lot better than prime contractors because it's direct instead of waiting 15 to 30 days later to get payments sometimes. ODOT's been great to work with.

[ODOT staff have] been real respectful [to me as a woman] when I've been in the interviews.

Additional focus on reducing barriers to DBEs as prime contractors was urged by several owners. "Unbundling" contracts to make them smaller and/or less complex is one method to facilitate prime awards suggested by interview participants.

It certainly would address the issue of trying to find a larger chunk of work, a greater responsibility, helping you grow as a DBE and your capabilities. And sometimes it's not growing in your capabilities. It's being able to perform and show for ODOT that you can, we're capable. I can show them several other clients where we're doing exactly that kind of work, but because you haven't done it for them before, they won't let you, and you're not going to win a contract as a prime. And if you can't get the experience as a sub, you can never make that step.

You're subject to the Prime kind of controlling your schedule and everything else and the money. We could get the jobs broken down to smaller, like used to be way back in the day, like Earthwork only, and then maybe asphalt or surfacing only. If they're smaller, then the subs will have more control. I mean the smaller DBEs would have more control because they wouldn't be a sub. They could be a prime, but they liked to let these big, a hundred-million-dollar projects that a lot of typical DBEs can't reach. So, we're subject to whoever the general is there. So, that's one suggestion, if ODOT could break down just the phases or

something that they could let contracts out, smaller contracts, the DBEs that have more opportunity.

Several large non-DBEs agreed that more emphasis on helping DBEs to obtain small prime awards— which would be race-neutral participation ¹¹³— would be welcome.

If some of [the DBE program] were balanced with small business, instead of with DBE [contract goals], then I think that there are a lot of companies that could benefit from that. Especially with the climate that we're going into now, small businesses are probably going to start increasing. I know that I wouldn't mind doing some of those things that I know how to do for civil type construction projects, if they were unbundled, as you said. I hadn't heard that term before, but I think there's a lot of smaller companies that would do that, that might not be DBEs.

I would encourage [DBEs to] go to those smaller projects, those maintenance type projects, and get that experience with the client before you come to us, asking us to give you that first time chance of working on one of our larger jobs.

What I've seen that's worked pretty well, in the Tulsa area anyway, is that some of the smaller firms have gone ahead and gone for some of those smaller projects on the ODOT solicitation, and reached out to more experienced firms, like ourselves and some others, to be a part of their team. Which takes a little convincing, to get us to agree to be a sub for a firm like that. But we've done that in some cases, and just sort of helped guide their people through the design process, the plan development, etc. They've been able to, I think, expand their company to some degree, through that process. It's nothing really formalized, it's just kind of something we've done with some of the firms, like John and some others up here that we work with pretty regular anyways.

Some urged the Department to consider adding a small business setaside to its program.

^{113. &}quot;Race-neutral measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality." 49 C.F.R. §26.5.

The small business setaside would be beneficial for the smaller firms, obviously. Whether it's legal or not, I think is questionable in the state of Oklahoma.

Another representative raised the caveat of the size of such a contracting pool.

ODOT's program just isn't big enough [for small business setasides.]

f. Meeting DBE Contract Goals

Most prime firms were able to meet DBE contract goals.

As a prime contractor you definitely use DBEs if there's a DBE goal and you probably would not have looked at that. You would have just looked at the lowest price had there not been a DBE goal. So, I think DBE goals are very important. And I think they help give DBEs an advantage to getting certain jobs that are funded with goals. I think goals are a good thing.

We usually do not have a problem meeting it, it's tight sometimes, but we can usually get it accomplished.

However, meeting goals was sometimes a challenge.

We get pretty creative at helping people that helps us be low bid even if they're DBE, and it's quite the game on our side to work with DBEs and do it the right way.

It's tough for us to get 10 percent participation. What we typically try to do is sub to DBEs for work that we don't do anyway.

It gets to be a struggle sometimes just depending on the job.

Especially in Southern Oklahoma, we have a hard time finding DBEs and we have to use mainly the traffic control as our DBE.

We've been able to make the DBE goals. But the way they're set on some of the county bridges that we bid that are in outlying counties, you are limited as far as who you can use.... There's not DBEs that provide the scopes that you need on those jobs.

Changes to DBE utilization plans required by changes in the scope of the project were reported to have been approved by ODOT.

Once we had a DBE on our team, and in the scoping process, the work the DBE was going to do was removed from the scope. We submitted documentation, and it was a very easy process to get that DBE requirement then removed from the contract.

The substitution process and the good faith effort documentation process, I haven't found that to be terribly burdensome, in ODOT anyways.

Prime bidders agreed with DBEs that they tend to repeatedly use the same firms.

Usually, the type of projects that we're bidding, we just can't risk putting a DBE that we don't trust on a A plus B high risk interchange project. So, the ones that we're working with are ones we trust and have had a relationship with in the past and know they can perform.

The DBE Directory was reported to contain firms that do not regularly bid.

I do wish they would update their DBE list that they have listed. We send out an email and fax every month with what we're bidding on those listed. We regularly get replies back that we don't even bid at. We don't bid in Oklahoma. So, take us off your list, but yet they're still listed on ODOT's website as being an active DBE participant.

Decisions by the Department about its specifications can undercut prime bidders' efforts to utilize DBEs.

One of our situations that occurs pretty frequently is when we are selected for a project, and as let's say a 7 percent DBE. But ODOT's used their in-house personnel to do the survey, do the geo tech. Not geo tech, I'm sorry. Do the environmental, do all those things that are easily subbed out. All you're left with is the transportation design piece, which is harder to break apart and sub out, especially if it's a smaller project.

Maybe you end up with only doing geo tech. Then you go down the list, and there's one geo tech firm in the whole state of Oklahoma that's DBE. It's really not conducive to having a large DBE goal, if they're going to do all of those

support services in-house.... the things they don't do in-house, they have all these on demand contracts for Right Of Way mapping, title investigation, Right Of Way acquisition, all these other services too, that could possibly be lumped into the contract. But they send those out on an on-demand contract. Basically, again, all of the support type items are contracted out separately or done in-house. Then you're left with nothing to sub out.

But the subcontracting issue, it's not just a DBE thing. It used to be that ODOT would give us a markup on our subcontractors, just like they do the construction contractors. They don't do that anymore, it's strictly pass-through costs.... They'll say, "We'll put that in your hours, in your hours." Then when you try to do that, they say, "You've got too many hours. We're not paying for that." We used to get a flat markup on our subcontractors, which helped ease the pain of subbing work out, when you don't really want to, but you kind of have to [to meet DBE goals].

Some interviewees questioned how the Department sets DBE contract goals.

[ODOT is] really not very good at writing down the percentage and analyzing the project. They're horrible at it. They also let a lot of jobs go by with no DBE that they should be getting some DBE on because they're fairly lazy, and they do not want to do any work.

Design firms faced special challenges.

There is still a limited pool of DBEs available on the consultant side.

We exceed the percentages typically that are shown, just because of the small firms that we participate with. The one time that we did not meet the goal, percentage goal, we were basically called to the carpet.

There's not a deep pool of resources in DBE for the design firms, from what we've seen. It's kind of a limited sector, especially if you look at what you have to give away, that you can grow your internal staff with. Most of what we are challenged with is trying to find a DBE for things that are not what we do in house. So, it wouldn't make it doesn't make good business sense. We have that internal dispute with

ourselves is, do I give this out? Do I sub out my survey when I've got people sitting in the back room, not doing anything? Or do I try to parcel up a one-mile project and say, "Well, roadway design, I need to sub that out."

The Department of Transportation looks for a full-service engineering firm. They don't want to go out to multiple firms to do one project. They want one single point of contact, and they'd like it to be all internal.

So, we've got that kind of, it's an internal, conflicting interests to where they want a single source. But in order to meet the goal, we have to outsource things that they require us to have as an internal component. I can't outsource a bridge. They want, whenever we say we're a full-service engineering firm, they say, "Well, that means you have roadway, bridge and survey." And so, here's a bridge project, and now we're being asked to then outsource one of those three components. So, it makes it kind of, it's competing interests. That's what makes it a challenge to comply with the DBE goal. I can't do half of a bridge and do half of it internal and half of it an external. Bridge guys don't like to do that. They're fairly protective of their designs. Same thing with roadway. It would be difficult to say, "Okay, I'm going to design a half mile. You design the other half mile."

One of the other things that we run into a little bit is just capacity of the various DBE firms. And whether or not an available DBE firm is on, I'll call it the good list, because obviously we want to provide the best value to the DOT. We don't want to propose teaming with a DBE firm that has a bad reputation and get, miss out on the opportunity to do work with the department because we can't team with the firm that is over capacity.

A non-DBE design firm owner stated that he has been injured by the program.

My firm is technical, and we compete with a lot of DBEs, and we normally lose. For a small firm, you really need to work with a lot of consultants. And most consultants on this call would tell you that they cannot hire us because we are not a DBE. And for a small firm, it really hurt us because we can't work with ODOT at all. Less than 5 percent of our revenue comes from ODOT because of that.... If firms can

hire a DBE to do a large portion of one project and be able to bank it, then on the next project, they don't have to find the small portion of their project for a DBE. And that would definitely help small firms like ours.

2. Business Owner Survey Comments

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

a. Experiences with ODOT's DBE Policy and Procedures

DBEs strongly supported the program. Minority and woman respondents viewed the program and goals as necessary to level the playing field.

Keep up the great work!

Although there is always going to be the occasional person who is opposed to women, ODOT as a whole, promotes policies which allow me to compete on equal standing. I have never felt discriminated against by ODOT because of my gender.

They [ODOT] are doing a great job.

We greatly appreciate the DBE program and the opportunity it gives our company!

My certificate has helped me get a few jobs with other contractors needing to meet disadvantaged businesses requirement.

Again, being woman owned, I feel like we fall down on the list of capabilities. A deb [sic] percentage is needed.

It [the program] has been [helpful], but once I have secured a project, our company has a great reputation. Repeat business is good, first time business is sometimes difficult to secure.

Continue to give opportunities for DBE's to bid on and acquire work.

I would just ask that you continue to offer DBE goals.

I am very pleased and appreciate the [ODOT DBE] program.

Some non-certified woman-owned firms owners indicated that more program compliance is needed. The perception is that some companies are "fronts" that do not qualify for participation in the program.

This program needs to be monitored. Simply putting the business in your wife's name, should not be allowed. Companies are put on this list for an eternity. If someone is allowed to be a DBE, there should be time limits, such as 3 to 5 years.

I don't agree with the program at all, and think the whole thing is a sham. A proper program would give a company 3-5 years on the DBE list, then they would be treated like everyone else. Most of the companies on the list that show to be female owned. They are in reality owned, and run [by] the listed female's husband.

ELIMINATE IT. But if there is one, it should be for a period of time, Not forever. And people putting the company in their wife's name should be disallowed.

One non-DBE respondent agreed.

In the past, you have denied a woman owned business that really did have a woman running the business & yet approves other woman owned businesses where they never darkened the door of the business. A lack of consistency in who you approve, and not having all federally recognized categories would help.

Some respondents reported difficulty in keeping up with program paperwork.

We have been [DBE certified] in the past. However, the paperwork is extensive to prepare and keep up with.

It was difficult to get a response from ODOT on paperwork submitted and the process is still kind of a mystery after you submit. Specifics are needed on steps and the strange calendar requirements on when 90 days start, etc.

Yes, [ODOT should] reduce the amount of redundant paperwork required [for the DBE Program].

Respondents offered suggestions to enhance the program. Professional service firms thought more could be done to include them and specific minority groups in the program.

Set up a set aside program like the federal 8a program especially for the design professionals. Design contracts are awarded based on the firm's size and experience with ODOT so it is hard [to] get a design contract if you're a firm with less than 3-5 employees. I would love to see a study ranking design firms based on the contract amounts awarded to them within the last 10-15 years.

Would really like to see incentives given to prime contractors as well as ODOT divisions to utilize DBE firms that provide specialized and professional services.

They need to be better educated about projects and what types of professionals are required to perform the work. Probably need to be more familiar with the CFR.

We are always approached as if we were a contractor. But we are consultants. I'm sure that ODOT hires consultants. They should also apply the DBE program to them.

Stop making excuses for professional service vendors not meeting goals. Make a goal for Black contractor utilization and not just DBE utilization.

Others suggested that more could be done to ensure DBE participation.

Seems the DBE goals are too low.

Changing the wording in state funded project regarding DBE participation from a "GOAL" to a "REQUIREMENT".

If ODOT and municipalities had a set aside program similar to the one on the federal level especially for small DBE businesses.

Increase or do away with the cap on a DBE. If you qualify as a DBE when you make under \$24,000,000 per year, then you should qualify if you make over. You are still a minority/female business enterprise no matter what you earn.

I would like to see things done fairly. I would like to see DBE companies use other DBE companies before they use non-DBE companies to reach goals.

Transparency in sub to sub bidding process to reduce costs and make sure that there is DBE participation at all levels.

One DBE suggested more opportunities should be made available to secure prime contracts.

More opportunities as prime instead of sub or sub to sub.

b. ODOT's Business Support Services

Many DBE respondents reported good experiences with ODOT's business support services.

Bonding support was very informative.

Had a great experience with the marketing program. The group I worked with was over a few weeks, goals were set, and progress was made. From website design to customer contacts. Great program. Helped tremendously outside the ODOT program.

I was able to receive help in setting up a website.

I watch all the webinars on relevant topics that will help me and that I can find. I take classes, as I can afford them, to make sure I know the most about what I may be lacking in experience.

[Participating in supportive services] was a good experience.

Our organization has participated in training offered to DBE's through ODOT Supportive Services. Training has included software education, OSHA courses, etc. We have also received reimbursement for training through supportive services and partial payment on the financial audit needed for qualification.

[Supportive services were] very helpful.

[Supportive services were] very informative and helpful.

Beneficial for business operations, not for obtaining work.

Mentor-protégé programs and partnerships were seen as important approaches to help DBEs compete for larger contracts.

We have been very fortunate to have partnered with some great prime contractors on projects with DBE goals, which has led to partnerships on other projects.

[Implement a] Mentor-Protégé Program.

Some prime firms reported favorable experiences with mentoring DBE firms.

We have assisted people in starting DBE company and getting certified. Have also mentored start-up/inexperienced firms/individuals.

I have helped develop/introduce a few firms to the business and to the clients (ODOT, OTA, municipalities, etc.).

We have helped several new DBE companies unofficially by helping with mistakes on quotes, paperwork, how the DBE process and reporting works, on-site instruction/help, etc.

Several DBE and non-DBE firms reported experiences with mentor-protégé programs that were less positive.

Mentor protege was not well executed by mentor, JVs have not resulted in positive financial outcomes. Seems to be in favor of the larger firm instead of DBEs.

[As a non-DBE, prime firm, mentoring] did not work well. Would not consider doing this again.

[Our experience as a non-DBE firm is that] the MP program has way too much paper trail documentation required and creates a hardship on all parties.

The DBE we were trying to help was denied status by ODOT.

[As a non-DBE firm, we found] the program is good for very small firms (2 to 5 people) that perform well. The program does not work as well for a little [sic] larger firms (20 to 50 people). The larger firms need more volume of work. ODOT needs to perform less tasks in-house allowing more tasks to be sub-consulted to DBEs by the primes.

Many DBE respondents requested that ODOT provide additional support to facilitate relationship building between subcontractors/subconsultants and prime contractors/consultants.

Having the opportunity to meet with qualified GCs in Ok [would be helpful].

[I would like to see] networking meetup with the primes who do the really large projects.

Build communication between GC and DBE.

I believe the ODOT DBE Program should emphasize industry knowledge, experience, and relationships that are the primary keys to DBE's entering the DBE program. The DBE program is a small component of any business plan and future success.

Continue building strong relationships with prime contractors [would help our business]. Continue finding opportunities on projects with DBE goals.

Continued networking events where I get to meet prime professional service providers [would be helpful].

Please include all DBEs in new solicitations from ODOT in all future lettings to include maintenance projects.

I think opportunities to network is always helpful and more jobs with DBE requirements.

More advertising, qualified staff, & financing!

To be included on [solicitations for] DBE projects in the Tulsa area.

DBE respondents suggested that more assistance with bonding, financing and insurance to create access to opportunities was needed.

Bonding capacity!

Easier access to bonding.

Financing and a good interest rate and easier bonding.

C. Conclusion

ODOT implements a program that complies with the DBE program regulations and national best practices. Overall, DBEs received work for highway work and prime contractors were generally able to comply with program requirements. Most participants supported the overall DBE program and DBEs generally reported it as important to their growth and development. However, there are concerns to address, including greater facilitation of relationships between DBEs and large firms; providing additional training and supportive services; reducing contract size and complexity; difficulty in subcontractors moving into the role of prime contractors; assisting DBE design firms; and reviewing Department policies that militate against the utilization of DBEs.

Oklahoma Department of Transportation Disparity Study 2021							

IV. UTILIZATION, AVAILABILITY AND DISPARITY ANALYSES FOR THE OKLAHOMA DEPARTMENT OF TRANSPORTATION

A. Contract Data Overview

This Study examined Oklahoma Department of Transportation (ODOT) contract and procurement data dollars for the fiscal years 2015 through 2019. The Initial Contract Data File contained 2,102 contracts. Because of the large number of contracts, CHA constructed a random sample of 450 contracts. These contract files did not have a complete set of variables needed to perform the quantitative analyses. Fields necessary for our analysis that were often missing were industry type; zip codes; North American Industry Classification System ("NAICS") codes of prime contractors and subcontractors; and non-certified subcontractor information, including payments, and race, gender. To address missing data, we contacted prime contractors to obtain consistent and accurate data on their subcontractors. We successfully collected 86 percent of the dollars in the Sample Contract Data File.

After contacting prime vendors and taking other steps to obtain a complete set of variables, the Final Contract Data File ("FCDF") contained 349 prime contracts and 1,706 subcontracts. The total net dollar value of prime contracts was \$1,221,522,596; the total net dollar value of subcontracts was \$475,477,246. The Final Contract Data File was used to determine the geographic and product markets for the analyses, and to estimate the utilization of Disadvantaged Business Enterprises ("DBEs") on the Department's construction and design contracts. We then used the FCDF, in combination with other databases (as described below), to calculate DBE unweighted and weighted availability in the Department's construction marketplace.

The balance of this Chapter presents detailed information on:

- The Sample Contract Data File
- The Final Contract Data File
- The Department's geographic market

- The utilization analysis
- The availability analysis
- The disparity analysis

B. Development of the Sample Contract Data File

The Initial Contract Data File contained 2,102 contracts. In order to develop a more manageable file for this analysis, CHA constructed a random sample. The size of a statistically reliable sample depends upon the original universe, the desired confidence interval (the margin of error), and the desired confidence level (how certain you can be of the results). With this universe of 2,102 contracts, a confidence level of 95 percent, and a confidence interval of 5 percent, the ideal sample size is 325. To increase the quality of this sample, we drew a sample of 450 contracts. Tables 4-1 and 4-2 presents the parameters of the Initial Contract Data File and the Sample Contract Data File.

Table 4-1: Comparing the Industry Distribution of Contracts across the Initial Contract Data File and the Sample Contract Data File

Industry	Frequency	Share of File							
Initial Contract Data File									
Construction	1,188	56.5%							
Construction Related Services	914	43.5%							
Total	2,102	100.0%							
Sample Co	ntract Data File								
Construction	254	56.4%							
Construction Related Services	196	43.6%							
Total	450	100.0%							

Source: CHA analysis of Oklahoma Department of Transportation data

Table 4-2: Comparing the Industry Distribution of Award Amounts across the Initial Contract Data File and the Sample Contract Data File

Industry	Award Amount	Share of File							
Initial Contract Data File									
Construction	\$186,655,418.16	5.7%							
Construction Related Services	\$3,062,509,229.98	94.3%							
Total	\$3,249,164,648.14	100.0%							
Sample Co	ntract Data File								
Construction	\$142,673,569.55	5.8%							
Construction Related Services	2,302,667,017.81	94.2%							
Total	\$2,445,340,587.36	100.0%							

The Sample Contract Data File captures 75.3 percent of the dollars awarded of these contracts.

C. The Oklahoma Department of Transportation's Final Contract Data File

As discussed in the Chapter II, the federal courts ¹¹⁴ and the DBE program regulations ¹¹⁵ require that a government agency narrowly tailor its race- and gender-conscious contracting program elements to its geographic market area. This element of the analysis must be empirically established. ¹¹⁶ The accepted approach is to analyze those detailed industries, as defined by 6-digit NAICS codes ¹¹⁷ that make up at least 75 percent of the prime contract and subcontract payments for the study period. ¹¹⁸ In this Section of the report, we identify all of the NAICS codes

^{114.} City of Richmond v. J.A. Croson Co., 488 U.S. 469, 508 (1989) (Richmond was specifically faulted for including minority contractors from across the country in its program based on the national evidence that supported the USDOT DBE program); 49 C.F.R. §26.45(c); https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-set-ting-disadvantaged-business-enterprise ("D. Explain How You Determined Your Local Market Area.... your local market area is the area in which the substantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars.").

^{115. 49} C.F.R. §26.45.

^{116.} Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513, 1520 (10th Cir. 1994) (to confine data to strict geographic boundaries would ignore "economic reality").

^{117.} www.census.gov/eos/www/naics.

^{118.} 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").

in the Department's Final Contract Data File (Table 4-3). In Section D, we identify the Department's geographic market. This step of identifying the geographic market imposes a spatial constraint on this data set. Having established the geographic market, in Section E we constrain the Final Contract Data File by this spatial parameter. Table 4-4 will present the resulting data.

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

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
237310	Highway, Street, and Bridge Construction	80.0%	80.0%
238910	Site Preparation Contractors	4.9%	84.9%
541330	Engineering Services	4.4%	89.2%
561990	All Other Support Services	1.9%	91.2%
237110	Water and Sewer Line and Related Structures Construction	1.2%	92.4%
561730	Landscaping Services	1.2%	93.5%
541370	Surveying and Mapping (except Geophysical) Services	0.9%	94.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.9%	95.4%
238120	Structural Steel and Precast Concrete Contractors	0.8%	96.2%
541380	Testing Laboratories	0.8%	97.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.5%	97.5%
238990	All Other Specialty Trade Contractors	0.5%	98.0%
484110	General Freight Trucking, Local	0.4%	98.4%
541620	Environmental Consulting Services	0.3%	98.7%
237990	Other Heavy and Civil Engineering Construction	0.2%	98.9%
238320	Painting and Wall Covering Contractors	0.2%	99.1%
541690	Other Scientific and Technical Consulting Services	0.2%	99.3%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%	99.4%
238110	Poured Concrete Foundation and Structure Contractors	0.1%	99.5%
444190	Other Building Material Dealers	0.1%	99.6%
327992	Ground or Treated Mineral and Earth Manufacturing	0.1%	99.7%
333120	Construction Machinery Manufacturing	0.1%	99.8%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541990	All Other Professional, Scientific, and Technical Services	0.1%	99.8%
238390	Other Building Finishing Contractors	0.1%	99.9%
237130	Power and Communication Line and Related Structures Construction	0.03%	99.9%
541320	Landscape Architectural Services	0.02%	99.93%
238140	Masonry Contractors	0.02%	99.95%
926120	Regulation and Administration of Transportation Programs	0.01%	99.96%
541720	Research and Development in the Social Sciences and Humanities	0.01%	99.97%
561320	Temporary Help Services	0.01%	99.97%
238130	Framing Contractors	0.01%	99.98%
541921	Nonscheduled Chartered Passenger Air Transportation	0.01%	99.99%
238350	Finish Carpentry Contractors	0.003%	99.989%
238290	Other Building Equipment Contractors	0.003%	99.992%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.003%	99.995%
327320	Ready-Mix Concrete Manufacturing	0.002%	99.997%
236220	Commercial and Institutional Building Construction	0.001%	99.998%
541611	Administrative Management and General Management Consulting Services	0.001%	99.999%
541350	Building Inspection Services	0.001%	99.999%
541420	Industrial Design Services	0.0005%	99.9999%
524126	Direct Property and Casualty Insurance Carriers	0.0001%	100.0000%
TOTAL			100.0%

D. The Oklahoma Department of Transportation's Geographic Market

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

Contracts awarded to firms located in the State of Oklahoma accounted for 87.6 percent of all dollars during the study period. Therefore, the state was determined to be the geographic market for ODOT, and we limited our analysis to firms in Oklahoma. ¹²⁰

E. The Oklahoma Department of Transportation's Utilization of DBEs in its Geographic and Product Market

Having determined the Department's geographic market area, the next step was to determine the dollar value of ODOT's utilization of DBEs¹²¹ as measured by net payments to prime firms and subcontractors and disaggregated by race and gender. As discussed in Chapter II, a defensible disparity study must determine empirically the industries that comprise the agency's product or industry market. The accepted approach is to analyze those detailed industries, as defined by 6-digit NAICS codes that make up at least 75 percent of the prime contract and subcontract payments for the study period. ¹²²

Tables 4-4 through 4-6 present data on the utilization of contract dollars. (Note the contract dollar shares in Table 4-4 are equivalent to the weight of spending in each NAICS code. These data were used to calculate weighted availability ¹²³ from unweighted availability, as discussed below).

^{119.} National Disparity Study Guidelines, p. 49.

^{120.} Constraining the study to firms located in Oklahoma had the unintended consequence of eliminating from the study the one Black-owned firm that received dollars from ODOT. This firm received one subcontract.

^{121.} For our analysis, the term "DBE" includes firms that are certified by government agencies and minority- and womanowned 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.").

^{122.} National Disparity Study Guidelines, p. 49.

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

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
237310	Highway, Street, and Bridge Construction	\$1,190,121,216.00	80.0%
541330	Engineering Services	\$66,878,504.00	4.5%
238910	Site Preparation Contractors	\$59,752,192.00	4.0%
561990	All Other Support Services	\$32,950,888.00	2.2%
237110	Water and Sewer Line and Related Structures Construction	\$18,359,244.00	1.2%
561730	Landscaping Services	\$17,970,704.00	1.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$14,211,771.00	1.0%
541370	Surveying and Mapping (except Geophysical) Services	\$13,758,728.90	0.9%
541380	Testing Laboratories	\$13,428,112.00	0.9%
238120	Structural Steel and Precast Concrete Contractors	\$11,421,486.00	0.8%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$8,667,438.00	0.6%
238990	All Other Specialty Trade Contractors	\$7,757,232.50	0.5%
484110	General Freight Trucking, Local	\$6,420,910.50	0.4%
541620	Environmental Consulting Services	\$5,023,595.50	0.3%
237990	Other Heavy and Civil Engineering Construction	\$3,931,612.00	0.3%
541690	Other Scientific and Technical Consulting Services	\$2,736,808.50	0.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$2,075,082.38	0.1%
238110	Poured Concrete Foundation and Structure Contractors	\$1,957,632.50	0.1%
444190	Other Building Material Dealers	\$1,909,977.12	0.1%

^{123.} See "Tips for Goal Setting in the Disadvantaged Business Enterprise Program" ("F. Wherever Possible, Use Weighting. Weighting can help ensure that your Step One Base Figure is as accurate as possible. While weighting is not required by the rule, it will make your goal calculation more accurate. For instance, if 90% of your contract dollars will be spent on heavy construction and 10% on trucking, you should weight your calculation of the relative availability of firms by the same percentages.") (emphasis in the original), https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
238320	Painting and Wall Covering Contractors	\$1,836,226.75	0.1%
327992	Ground or Treated Mineral and Earth Manufacturing	\$1,250,931.00	0.1%
333120	Construction Machinery Manufacturing	\$1,098,769.00	0.1%
541990	All Other Professional, Scientific, and Technical Services	\$1,030,416.50	0.1%
238390	Other Building Finishing Contractors	\$885,474.12	0.1%
237130	Power and Communication Line and Related Structures Construction	\$593,605.50	0.04%
238140	Masonry Contractors	\$336,100.00	0.02%
541320	Landscape Architectural Services	\$213,983.16	0.01%
926120	Regulation and Administration of Transportation Programs	\$114,695.00	0.01%
561320	Temporary Help Services	\$105,310.16	0.01%
541921	Nonscheduled Chartered Passenger Air Transportation	\$96,933.00	0.01%
238350	Finish Carpentry Contractors	\$56,801.15	0.004%
238290	Other Building Equipment Contractors	\$56,038.90	0.004%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	\$47,308.30	0.003%
541720	Research and Development in the Social Sciences and Humanities	\$40,446.11	0.003%
327320	Ready-Mix Concrete Manufacturing	\$30,154.56	0.002%
236220	Commercial and Institutional Building Construction	\$17,633.70	0.001%
541611	Administrative Management and General Management Consulting Services	\$14,396.39	0.001%
541350	Building Inspection Services	\$12,720.00	0.001%
541420	Industrial Design Services	\$8,197.50	0.001%
524126	Direct Property and Casualty Insurance Carriers	\$1,500.00	0.0001%
Total		\$1,487,180,775.70	100.0%

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Table 4-5: Distribution of Contract Dollars by Race and Gender¹²⁴ (total dollars)

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
236220	\$0	\$0	\$0	\$0	\$0	\$0	\$17,634	\$17,634
237110	\$0	\$426,429	\$0	\$749,538	\$274,462	\$1,450,429	\$16,908,814	\$18,359,243
237130	\$0	\$0	\$0	\$0	\$0	\$0	\$593,606	\$593,606
237310	\$0	\$4,209,967	\$3,688,766	\$14,172,420	\$134,152,610	\$156,223,763	\$1,033,897,497	\$1,190,121,261
237990	\$0	\$0	\$0	\$0	\$0	\$0	\$3,931,612	\$3,931,612
238110	\$0	\$0	\$0	\$0	\$0	\$0	\$1,957,633	\$1,957,633
238120	\$0	\$5,993,280	\$0	\$0	\$0	\$5,993,280	\$5,428,206	\$11,421,486
238140	\$0	\$0	\$0	\$0	\$0	\$0	\$336,100	\$336,100
238210	\$0	\$0	\$0	\$0	\$59,632	\$59,632	\$14,152,138	\$14,211,771
238220	\$0	\$0	\$0	\$0	\$2,733,506	\$2,733,506	\$5,933,931	\$8,667,438
238290	\$0	\$0	\$0	\$0	\$0	\$0	\$56,039	\$56,039
238320	\$0	\$0	\$0	\$0	\$0	\$0	\$1,836,227	\$1,836,227
238350	\$0	\$0	\$0	\$0	\$56,801	\$56,801	\$0	\$56,801
238390	\$0	\$0	\$0	\$867,118	\$0	\$867,118	\$18,356	\$885,474
238910	\$0	\$18,359	\$0	\$5,745,104	\$6,149,308	\$11,912,771	\$47,839,420	\$59,752,191
238990	\$0	\$0	\$0	\$343,440	\$303,398	\$646,838	\$7,110,394	\$7,757,233
327320	\$0	\$0	\$0	\$0	\$0	\$0	\$30,155	\$30,155
327992	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,931	\$1,250,931
332999	\$0	\$0	\$0	\$0	\$0	\$0	\$47,308	\$47,308

^{124.} As noted above, the absence of any contract dollars going to Black firms resulted from limiting the spatial scope of the analysis to Oklahoma. This eliminated the one Black firm that received one subcontract, which was located in Texas.

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non-DBE	Total
333120	\$0	\$0	\$0	\$1,098,769	\$0	\$1,098,769	\$0	\$1,098,769
444190	\$0	\$0	\$0	\$1,846,240	\$0	\$1,846,240	\$63,737	\$1,909,977
484110	\$0	\$1,148,415	\$0	\$4,643,914	\$372,192	\$6,164,521	\$256,389	\$6,420,910
484220	\$0	\$978,225	\$0	\$992,507	\$0	\$1,970,732	\$104,350	\$2,075,082
524126	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500	\$1,500
541320	\$0	\$0	\$0	\$0	\$0	\$0	\$213,983	\$213,983
541330	\$0	\$997,253	\$1,425,440	\$3,727,215	\$10,300,537	\$16,450,445	\$50,428,060	\$66,878,504
541350	\$0	\$0	\$0	\$0	\$0	\$0	\$12,720	\$12,720
541370	\$0	\$0	\$0	\$1,238,020	\$6,371,241	\$7,609,261	\$6,149,468	\$13,758,729
541380	\$0	\$123,444	\$0	\$0	\$2,397,656	\$2,521,100	\$10,907,011	\$13,428,112
541420	\$0	\$0	\$0	\$0	\$0	\$0	\$8,198	\$8,198
541611	\$0	\$0	\$0	\$0	\$0	\$0	\$14,396	\$14,396
541620	\$0	\$182,087	\$155,646	\$0	\$979,920	\$1,317,653	\$3,705,942	\$5,023,595
541690	\$0	\$0	\$0	\$0	\$384,803	\$384,803	\$2,352,005	\$2,736,808
541720	\$0	\$0	\$0	\$0	\$0	\$0	\$40,446	\$40,446
541921	\$0	\$0	\$0	\$0	\$96,933	\$96,933	\$0	\$96,933
541990	\$0	\$0	\$0	\$32,000	\$188,800	\$220,800	\$809,616	\$1,030,416
561320	\$0	\$0	\$0	\$0	\$105,310	\$105,310	\$0	\$105,310
561730	\$0	\$0	\$0	\$0	\$9,283,911	\$9,283,911	\$8,686,793	\$17,970,704
561990	\$0	\$0	\$15,276,262	\$3,235,831	\$89,063	\$18,601,156	\$14,349,732	\$32,950,888
926120	\$0	\$0	\$0	\$0	\$0	\$0	\$114,695	\$114,695
Total	\$0	\$14,077,460	\$20,546,113	\$38,692,116	\$174,300,086	\$247,615,775	\$1,239,565,042	\$1,487,180,817

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

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
236220	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
230220	0.0%	2.3%	0.0%	4.1%	1.5%	7.9%	92.1%	100.0%
237130	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
237310	0.0%	0.4%	0.3%	1.2%	11.3%	13.2%	86.9%	100.0%
237990	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238110	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238120	0.0%	52.5%	0.0%	0.0%	0.0%	52.5%	47.5%	100.0%
238140	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238210	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	99.6%	100.0%
238220	0.0%	0.0%	0.0%	0.0%	31.5%	31.5%	68.5%	100.0%
238290	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
238350	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
238390	0.0%	0.0%	0.0%	97.9%	0.0%	97.9%	2.1%	100.0%
238910	0.0%	0.0%	0.0%	9.6%	10.3%	19.9%	80.1%	100.0%
238990	0.0%	0.0%	0.0%	4.4%	3.9%	8.3%	91.7%	100.0%
327320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
327992	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332999	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
333120	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%
444190	0.0%	0.0%	0.0%	96.7%	0.0%	96.7%	3.3%	100.0%
484110	0.0%	17.9%	0.0%	72.3%	5.8%	96.0%	4.0%	100.0%
484220	0.0%	47.1%	0.0%	47.8%	0.0%	94.9%	5.0%	100.0%
524126	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541320	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541330	0.0%	1.5%	2.1%	5.6%	15.4%	24.6%	75.4%	100.0%
541350	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541370	0.0%	0.0%	0.0%	9.0%	46.3%	55.3%	44.7%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
541380	0.0%	0.9%	0.0%	0.0%	17.9%	18.8%	81.2%	100.0%
541420	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541611	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541620	0.0%	3.6%	3.1%	0.0%	19.5%	26.2%	73.8%	100.0%
541690	0.0%	0.0%	0.0%	0.0%	14.1%	14.1%	85.9%	100.0%
541720	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
541921	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
541990	0.0%	0.0%	0.0%	3.1%	18.3%	21.4%	78.6%	100.0%
561320	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
561730	0.0%	0.0%	0.0%	0.0%	51.7%	51.7%	48.3%	100.0%
561990	0.0%	0.0%	46.4%	9.8%	0.3%	56.5%	43.5%	100.0%
926120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.9%	1.4%	2.6%	11.7%	16.6%	83.7%	100.0%

F. Availability of DBEs in the Oklahoma Department of Transportation's Geographic and Product Market

Estimates of the availability of DBEs in ODOT's geographic market are a critical component of the analysis of possible barriers to equal opportunities to participate in the Department's construction contracting activities. As discussed in Chapter II, the courts and the DBE regulations require that the availability estimates reflect the number of "ready, willing and able" firms that can perform on specific types of work involved in the agency's prime contracts and associated subcontracts.

To examine whether DBEs are receiving full opportunities on ODOT contracts, these narrowly tailored availability estimates were compared to the utilization percentage of dollars received by DBEs. Availability estimates are also crucial for the Department to determine its triennial DBE goal and to set narrowly tailored contract goals.

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

1. The Final Contract Data File (described in Section C of this Chapter).

- 2. A Master DBE Directory compiled by CHA.
- 3. Dun & Bradstreet/Hoovers Database downloaded from the companies' website.

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

We utilized the Oklahoma Department of Transportation's DBE certification list for the Unified Certification Program. An exhaustive search determined that this is the only list in the state that provides detailed race, gender and industry information. After compiling the Master DBE Directory, we limited the firms we used in our analysis to those operating within the Department's product market.

We next developed a custom database from Hoovers, a Dun & Bradstreet company for minority- and woman-owned firms and non-DBEs. 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 Department's market area in order to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identifies a firm as being minority-owned. However, the company does keep detailed information on ethnicity (*i.e.*, is the minority firm owner Black, Hispanic, Asian, or Native American). We obtained this additional information from Hoovers by special request.

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

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

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^{125.} The variable is labeled: "Is Minority Owned" and values for the variable can be either "1" (for yes) or blank.

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

- The unweighted availability percentages by race and gender and by NAICS codes for ODOT's product market. These results should be used by the Department as the starting point to set narrowly tailored contract-specific goals;
- 2. The weights used to adjust the unweighted numbers; 126 and
- 3. The final estimates of the weighted averages of the individual 6-digit level availability estimates in ODOT's market area.

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

Second, weighting also reflects the importance of the availability of a demographic group in a particular NAICS code, that is, how important that NAICS code is to the Department's overall contracting patterns. For example, in a hypothetical NAICS code 123456, the total available firms are 100 and 60 of these firms are DBEs; hence, DBE availability would be 60 percent. However, if the Department only spends only one percent of its contract dollars in this NAICS code, then this high availability would be offset by the low level of spending in that NAICS code. In contrast, if the Department spent 25 percent of its contract dollars in NAICS code 123456, then the same availability would carry a greater weight.

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

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

^{126.} These weights are equivalent to the share of contract dollars presented in the previous section.

Table 4-7: Unweighted DBE Availability for ODOT Contracts

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
236220	1.5%	0.7%	0.4%	5.9%	8.5%	17.1%	82.9%	100.0%
237110	0.0%	0.5%	0.0%	2.5%	3.4%	6.4%	93.6%	100.0%
237130	1.2%	0.0%	0.0%	3.7%	6.2%	11.1%	88.9%	100.0%
237310	0.8%	2.1%	0.4%	7.9%	9.6%	20.8%	79.2%	100.0%
237990	0.9%	0.0%	0.0%	9.2%	2.8%	12.8%	87.2%	100.0%
238110	0.0%	0.1%	0.0%	1.6%	2.0%	3.6%	96.4%	100.0%
238120	5.1%	6.8%	0.0%	5.1%	3.4%	20.3%	79.7%	100.0%
238140	0.0%	0.0%	0.0%	0.0%	1.5%	1.5%	98.5%	100.0%
238210	0.1%	0.2%	0.1%	2.1%	3.4%	5.9%	94.1%	100.0%
238220	0.2%	0.1%	0.0%	1.9%	1.8%	4.0%	96.0%	100.0%
238290	0.0%	0.0%	0.0%	2.5%	7.5%	10.0%	90.0%	100.0%
238320	0.3%	0.2%	0.1%	0.6%	2.2%	3.4%	96.6%	100.0%
238350	0.7%	0.0%	0.0%	0.7%	2.0%	3.3%	96.7%	100.0%
238390	0.0%	0.3%	0.0%	1.0%	1.7%	3.1%	96.9%	100.0%
238910	0.0%	0.4%	0.0%	5.5%	5.8%	11.8%	88.2%	100.0%
238990	0.4%	0.4%	0.1%	1.6%	3.6%	6.1%	93.9%	100.0%
327320	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%	96.5%	100.0%
327992	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
332999	0.0%	0.0%	0.0%	8.7%	4.3%	13.0%	87.0%	100.0%
333120	0.0%	0.0%	0.0%	2.0%	4.9%	6.9%	93.1%	100.0%
444190	0.2%	0.0%	0.0%	0.5%	4.7%	5.4%	94.6%	100.0%
484110	0.3%	0.2%	0.0%	0.7%	2.2%	3.4%	96.6%	100.0%
484220	3.2%	6.5%	0.5%	8.8%	11.6%	30.6%	69.4%	100.0%
524126	0.0%	0.0%	0.0%	0.0%	2.1%	2.1%	97.9%	100.0%
541320	0.2%	0.1%	0.1%	0.6%	2.0%	3.0%	97.0%	100.0%
541330	0.6%	0.6%	1.0%	3.8%	5.2%	11.3%	88.7%	100.0%
541350	1.0%	0.0%	0.0%	0.0%	2.0%	3.0%	97.0%	100.0%
541370	0.0%	0.4%	0.0%	5.0%	9.6%	15.0%	85.0%	100.0%
541380	0.5%	0.3%	0.5%	0.5%	5.2%	7.1%	92.9%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	DBE	Non- DBE	Total
541420	0.0%	0.0%	0.0%	12.5%	37.5%	50.0%	50.0%	100.0%
541611	0.8%	0.2%	0.2%	1.3%	4.7%	7.2%	92.8%	100.0%
541620	0.8%	1.1%	0.3%	3.5%	9.0%	14.7%	85.3%	100.0%
541690	1.2%	0.4%	0.0%	2.8%	5.0%	9.3%	90.7%	100.0%
541720	0.6%	0.0%	1.2%	1.8%	6.5%	10.1%	89.9%	100.0%
541921	0.1%	0.0%	0.0%	0.2%	6.4%	6.7%	93.3%	100.0%
541990	0.4%	0.1%	0.0%	0.6%	4.5%	5.5%	94.5%	100.0%
561320	0.0%	0.0%	0.0%	2.8%	11.3%	14.1%	85.9%	100.0%
561730	0.2%	0.1%	0.0%	1.1%	2.2%	3.5%	96.5%	100.0%
561990	0.4%	0.1%	0.0%	0.4%	2.2%	3.2%	96.8%	100.0%
926120	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.4%	0.2%	0.1%	1.3%	3.4%	5.4%	94.6%	100.0%

Source: CHA analysis of Oklahoma Department of Transportation data; Hoovers; CHA Master Directory

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

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
237310	Highway, Street, and Bridge Construction	80.0%
541330	Engineering Services	4.5%
238910	Site Preparation Contractors	4.0%
561990	All Other Support Services	2.2%
237110	Water and Sewer Line and Related Structures Construction	1.2%
561730	Landscaping Services	1.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	1.0%
541370	Surveying and Mapping (except Geophysical) Services	0.9%
541380	Testing Laboratories	0.9%
238120	Structural Steel and Precast Concrete Contractors	0.8%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.6%
238990	All Other Specialty Trade Contractors	0.5%
484110	General Freight Trucking, Local	0.4%
541620	Environmental Consulting Services	0.3%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Total Sector Dollars)
237990	Other Heavy and Civil Engineering Construction	0.3%
541690	Other Scientific and Technical Consulting Services	0.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%
238110	Poured Concrete Foundation and Structure Contractors	0.1%
444190	Other Building Material Dealers	0.1%
238320	Painting and Wall Covering Contractors	0.1%
327992	Ground or Treated Mineral and Earth Manufacturing	0.1%
333120	Construction Machinery Manufacturing	0.1%
541990	All Other Professional, Scientific, and Technical Services	0.1%
238390	Other Building Finishing Contractors	0.1%
237130	Power and Communication Line and Related Structures Construction	0.04%
238140	Masonry Contractors	0.02%
541320	Landscape Architectural Services	0.01%
926120	Regulation and Administration of Transportation Programs	0.01%
561320	Temporary Help Services	0.01%
541921	Nonscheduled Chartered Passenger Air Transportation	0.01%
238350	Finish Carpentry Contractors	0.004%
238290	Other Building Equipment Contractors	0.004%
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	0.003%
541720	Research and Development in the Social Sciences and Humanities	0.003%
327320	Ready-Mix Concrete Manufacturing	0.002%
236220	Commercial and Institutional Building Construction	0.001%
541611	Administrative Management and General Management Consulting Services	0.001%
541350	Building Inspection Services	0.001%
541420	Industrial Design Services	0.001%
524126	Direct Property and Casualty Insurance Carriers	0.0001%
Total		100.0%

We next determined the aggregated availability of DBEs, weighted by the Department's spending in its geographic and industry markets, to be 18.5 percent for the Department's contracts. Table 4-9 presents the total weighted availability data for each of the racial and gender categories. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix D.

The overall, weighted DBE availability results can be used by ODOT as its Step One base figure in calculating its triennial DBE goal under 49 C.F.R. §26.459(c). This approach has been accepted by USDOT.

Native White **Black** Hispanic Asian **DBE** Non-DBE Total American Women 0.8% 1.8% 0.4% 7.0% 8.6% 18.5% 81.5% 100.0%

Table 4-9: Aggregated Weighted Availability

Source: CHA analysis of Oklahoma Department of Transportation data; Hoovers; CHA Master Directory

G. Disparity Analysis of DBEs for Oklahoma Department of Transportation Contracts

At the Department's request, ¹²⁷ we next calculated disparity ratios for total DBE utilization compared to the total weighted availability of DBEs, measured in dollars paid.

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

$$DR = U/WA$$

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

The courts have held that disparity results must be analyzed to determine whether the results are "significant". There are two distinct methods to measure a result's significance. First, a "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80 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, statistically significant disparity means that an outcome is unlikely to have

^{127.} We note that neither Tenth Circuit Court of Appeals case law nor USDOT has required recipients outside the Ninth Circuit Court of Appeals to undertake disparity testing, since Congress has already determined there is discrimination in the market for federally assisted transportation contracts. https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/western-states-paving-company-case-q-and-a.

occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. ¹²⁹ A more in-depth discussion of statistical significance is provided in Appendix C.

Substantive and Statistical Significance

- ‡ Connotes these values are substantively significant. Courts have ruled the disparity ratio less or equal to 80 percent represent disparities that are substantively significant. (See Footnote 128 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 for construction contracts for each demographic group.

Native White Hispanic **DBE Non-DBE Black** Asian American Women Disparity 37.3%^{‡*} $0.0\%^{\ddagger}$ 52.6%[‡] 356.5% 136.7%* 90.0% 102.3% Ratio

Table 4-10: Disparity Ratios by Demographic Group

Source: CHA analysis of Oklahoma Department of Transportation data
* Indicates statistical significance at the 0.05 level

‡ Indicates substantive significance

The disparity ratios for three groups – Blacks, Hispanics, and Native Americans – are substantively significant. The disparity ratios for two groups – Native American and White Women – are statistically significant at the 0.005 level.

It is the standard CHA practice to explore any DBE disparity ratio that exceeds 100 percent. This is to ensure that an abnormal pattern of DBE concentration does not account for disparity ratios greater than 100 percent, thereby leading to the unwarranted conclusion that race-conscious remedies are no longer needed to redress discrimination against a particular socially disadvantaged group. It is possi-

^{128.} 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.").

^{129.} 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.

ble that a group's disparity ratio that is larger than 100 percent might be the result of the success of a few firms and not indicative of the experiences of the broad set of firms in that group. This exploration entails further examination of any NAICS codes where:

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

Given these criteria, we examined more closely the utilization of Asian-owned and White woman-owned firms in four specific codes.

- 237310 Highway, Street, and Bridge Construction
- 238910 Site Preparation Contractors
- 541330 Engineering Services
- 561990 All Other Support Services

In Tables 4-11 through 4-15, we explore the levels of firm concentration by examining several factors:

- The NAICS code's share of all ODOT spending with Asian or White woman firms compared to the NAICS code's share of ODOT spending received by non-DBEs. This provides a sense of how important spending in the NAICS code was to a group's overall revenue compared to that same metric for non-DBEs. In a world where race and gender did not affect outcomes, the share would be similar.
- The number of Asian or White woman firms that received contracts compared to the number of non-DBE firms that received contracts, and how the monies received were distributed among these firms. These two metrics provide a sense of whether or not there were fewer DBE firms receiving contracts and the share of a group's monies received compared to non-DBE firms. If either was the case, then the high level of utilization by a DBE group resulted from the success of a few DBEs and was not distributed across the entire spectrum of DBE firms. This would be in contrast to a wider distribution of success among non-DBE firms.

Table 4-11 presents these data for Asian and non-DBE firms in NAICS code 541330 – Engineering Services. We find that this code contains a slightly larger share of all spending received by Asian firms compared to non-DBEs. Also, there is a sharp difference in the degree of concentration: only three Asian firms received contracts in this code and the share of code spending for the largest two firms was 99.6 percent; in contrast, 57 non-DBE firms received contracts and the largest two firms only received 33.3 percent of all non-DBE monies in this code.

Table 4-11: Comparing Asian and Non-DBE Outcomes
NAICS Code 541330 - Engineering Services
(NAICS Code Share of All ODOT Spending: 4.5%)

	Asian	Non-DBE
NAICS code share of all spending	6.9%	4.1%
Number of firms	3	57
Share of group spending in NAICS code by the largest firm	56.5%	18.6%
Share of group spending in NAICS code by the second largest firm	43.1	14.7
Share of group spending in NAICS code by the third largest firm	0.5	13.1
Share of group spending in NAICS code by the three largest firms	100.0%	46.5%
Share of group spending in NAICS code by the remaining firms	0.0%	53.5%

Table 4-12 presents data comparing Asian and non-DBE firms in NAICS code 561990 – All Other Support Services. This code contained a much larger share of all spending received by Asians compared to non-DBEs: 74.4 percent of all Asian monies from ODOT were in this code; in contrast, non-DBEs received just 1.2 percent of their monies from this code. This pattern is also reflected in the concentration of monies in firms. Only one Asian firm received any contracts in this code. For non-DBE firms, seven received contracts.

Table 4-12: Comparing Asian and Non-DBE Outcomes
NAICS Code 561990 - All Other Support Services
(NAICS Code Share of All ODOT Spending: 2.2%)

	Asian	Non-DBE
NAICS code share of all spending	74.4%	1.2%
Number of firms	1	7
Share of group spending in NAICS code by the largest firm	100.0%	51.4%
Share of group spending in NAICS code by the second largest firm		37
Share of group spending in NAICS code by the third largest firm		9.7
Share of group spending in NAICS code by the three largest firms	100.0%	98.0%
Share of group spending in NAICS code by the remaining firms	0.0%	1.2%

CHA analysis of Oklahoma Department of Transportation data

Table 4-13 presents data comparing White woman firms to non-DBE firms in NAICS code 237310 – Highway, Street, and Bridge Construction. This code contained a slightly smaller share of all spending received by White woman firms compared to non-DBEs but a large difference in concentration. In addition, 17 White woman firms received contracts in this code and the share of code spending for the largest firm was 64.6 percent. In contrast, 116 non-DBE firms received contracts and the largest firm only received 18.7 percent of all non-DBE monies in this code.

Table 4-13: Comparing White Woman and Non-DBE Outcomes NAICS Code 237310 - Highway, Street, and Bridge Construction (NAICS Code Share of All ODOT Spending: 80.0%)

	White Woman	Non-DBE
NAICS code share of all spending	77.0%	83.4%
Number of firms	17	116
Share of group spending in NAICS code by the largest firm	64.6%	18.7%
Share of group spending in NAICS code by the second largest firm	13.1	18.1
Share of group spending in NAICS code by the third largest firm	9.6	9.1
Share of group spending in NAICS code by the three largest firms	87.3%	45.8%
Share of group spending in NAICS code by the remaining firms	12.7%	54.2%

CHA analysis of Oklahoma Department of Transportation data

Table 4-14 presents data for White woman and non-DBE firms in NAICS code 238910 – Site Preparation Contractors. This code contained nearly identical shares of all spending received by White woman businesses and non-DBEs. But there is a sharp difference in the degree of concentration: only five White woman firms received contracts in this code and the share of code spending for the largest firm was 75.4 percent. In contrast, 40 non-DBE firms received contracts and the largest firm only received 22.5 percent of all non-DBE monies in this code.

Table 4-14: Comparing White Woman and Non-DBE Outcomes
NAICS Code 238910 - Site Preparation Contractors
(NAICS Code Share of All ODOT Spending: 4.0%)

	White Woman	Non-DBE
NAICS code share of all spending	3.5%	3.9%
Number of firms	5	40
Share of group spending in NAICS code by the largest firm	75.4%	22.5%
Share of group spending in NAICS code by the second largest firm	18.9	8.6
Share of group spending in NAICS code by the third largest firm	5.1	8.3
Share of group spending in NAICS code by the three largest firms	99.4%	39.4%
Share of group spending in NAICS code by the remaining firms	0.6%	60.6%

Table 4-15 presents data for White woman and non-DBE firms in NAICS code 541330 — Engineering Services. This code contained a slightly larger share of all spending received by White woman firms compared to non-DBEs. There is, however, a sharp difference in the degree of concentration. Twelve White woman firms received contracts in this code and the share of code spending for the largest firm was 77.1 percent. In contrast, 57 non-DBE firms received contracts and the largest firm only received 18.6 percent of all non-DBE monies in this code.

Table 4-15: Comparing White Women and Non-DBE Outcomes
NAICS Code 541330 - Engineering Services
(NAICS Code Share of All ODOT Spending: 4.5%)

	White Woman	Non-DBE
NAICS code share of all spending	5.9%	4.1%
Number of firms	12	57
Share of group spending in NAICS code by the largest firm	77.1%	18.6%
Share of group spending in NAICS code by the second largest firm	6.6	14.7
Share of group spending in NAICS code by the third largest firm	5.4	13.1
Share of group spending in NAICS code by the three largest firms	89.1%	46.5%
Share of group spending in NAICS code by the remaining firms	10.9%	53.5%

CHA analysis of Oklahoma Department of Transportation data

The analysis of the degree of spending concentration in these five NAICS codes supports the inference that the high disparity ratios for Asian and White woman firms — a level that some would interpret as evidence of success of all firms in those two groups — is partially a function of the unusual level of concentration of spending with a few firms. Success is not spread widely across a broad spectrum of Asian and White woman firms.

H. Conclusion

We determined the Oklahoma Department of Transportation's product market; geographic market; industry or product market; the availability of minority- and woman-owned firms as a percentage of all firms; and whether there are disparities in opportunities for ODOT contracts. DBEs as a group were not at parity. We found substantively significant disparities for Black, Hispanic, and Native American firms and statistically significant disparities for Native American and White woman businesses. While there were not substantively significant disparities for Asian and White woman firms, a deeper analysis revealed that the high utilization for these two groups relative to their weighted availability might be caused by the unusual level of concentration of contract success among a few firms in a small number of industries. This suggests that while the Department's program has succeeded in breaking down barriers to Asian and White woman participation on ODOT contracts, opportunities are highly concentrated amongst a small group of firms.

V. ANALYSIS OF DISPARITIES IN THE OKLAHOMA CONSTRUCTION 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. 130

This Chapter explores the data and literature relevant to how discrimination in the Oklahoma market affects the ability of minorities and women to fairly and fully engage in Oklahoma Department of Transportation ("ODOT") contract opportunities. Sections B and C focus on the Construction sector in Oklahoma because over 88 percent of ODOT's contracts were let in that industry. First, we analyzed the rates at which minorities and women in the State of Oklahoma form firms controlling for certain factors, presented in Section B. Second, we analyzed the impact of race and gender on firms' earnings, controlling for certain factors, presented in Section C. 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 these 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 the use of narrowly tailored contract goals.

A key element to determine the need for government intervention through contract goals is an analysis of the extent of disparities in various sectors independent of the agency's intervention through its contracting affirmative action program. The courts have repeatedly held that analysis of disparities in the rate of minority-and woman-owned business enterprises ("M/WBE") formation in the govern-

^{130.} Arrow, Kenneth J., "What Has Economics to say about racial discrimination?" *Journal of Economic Perspectives*, 12, 2, (1998), 91-100.

^{131.} The construction sector as defined by the ACS is equivalent to the NAICS code 2-digit level definition of Construction. This stands in contrast to CHA's use of 6-digit level NAICS codes in our contract analysis.

ment's markets as compared to similar non-M/WBEs, disparities in M/WBE earnings, and barriers to access to capital markets are highly relevant to a determination of whether market outcomes are affected by race or gender ownership status. Similar analyses supported the successful legal defense of the Illinois Tollway's Disadvantaged Business Enterprise Program from constitutional challenge. Moreover, the Tenth Circuit Court of Appeals in upholding the U.S. Department of Transportation's DBE program, stated that this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied. 134

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,

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^{132.} See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

^{133.} Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al, 840 F.3d 942 (7th Cir. 2016) ("Midwest Fence II") (rejecting challenge to the agencies' DBE programs in part based on similar evidence); 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 satisfied "compelling interest" standards using this framework).

^{134.} 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").

^{135.} Id.

the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education", "culture" and "religion".

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination. ¹³⁶ 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. ¹³⁷

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. ¹³⁸

This type of court-approved analysis is especially important for an agency such as ODOT, which has been implementing a program in conformance with 49 C.F.R. Part 26 for many years. The Department's remedial market interventions through the use of DBE contract goals may ameliorate the disparate impacts of market-place discrimination in the agency's own contracting activities. Put another way, the program's success in moving towards parity for minority and woman firms may be "masking" the effects of discrimination that otherwise would result in disparities in DBE utilization that mirrors that of the overall economy.

^{136.} Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868, at *64 (Sept. 8, 2005) ("Northern Contracting II").

^{137.} Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d. 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004); see also Adarand VII, 228 F.3d at 1175 (plaintiff has not met its burden "of introducing credible, particularized evidence to rebut the government's initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.").

^{138.} Western States Paving Co., Inc. v. Department of Transportation, 407 F.3d 983, 993 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

Evidence of the experiences of minority- and woman-owned firms outside the DBE program is relevant and probative of the likely results of ODOT adopting a race-neutral program, because contracting diversity programs are rarely imposed outside of specific government agencies. To examine the outcomes throughout the Oklahoma construction industry, we explored two Census Bureau datasets and the government and academic literature relevant to how discrimination in ODOT's industry market and throughout the wider Oklahoma construction economy affects the ability of minorities and women to fairly and fully engage in ODOT's prime contract and subcontract opportunities.

In applying these principles, we found that in general, minorities and women continue to face barriers to equal business opportunities in the marketplace for ODOT construction contracts. We found disparities for minorities and women in wages, business earnings, business formation rates and business receipts in the construction industry in the Oklahoma marketplace. We used two Census Bureau data sets to reach this conclusion: the American Community Survey ("ACS") and the Annual Business Survey ("ABS"). We also looked at findings from government reports and academic research. The results of these analyses support the conclusion that discrimination continues to impede the success of minority and female construction company owners and their firms, such that the Department might function as a passive participation in that discrimination absent the use of narrowly tailored contract goals.

B. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2015 - 2019 American Community Survey¹⁴⁰

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 without the intervention of the Department's DBE program. In this section, we use the Census Bureau's ABS data to explore 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.

^{139.} Possible disparities in wages are important to explore because of the relationship between wages and business formation. Research by Alicia Robb and others indicates non-White firms rely on their own financing to start businesses compared to White firms, who rely more heavily on financing provided by financial institutions. To the extent non-Whites face discrimination in the labor market, they would have reduced capacity to self-finance their entrepreneurial efforts and, hence, impact business formation. See, for example, Robb's "Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms" (2013).

^{140.} Data from 2015 - 2019 American Community Survey are the most recent for a five-year period.

One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital or the income level affects one's ability to borrow funds. Consequently, if particular demographic groups receive lower wages and salaries, then they would have access to a smaller pool of financial capital and thus reduce the likelihood of business formation.

The American Community Survey Public Use Microdata Sample ("PUMS") is useful in addressing these issues. The ACS is an annual survey of one percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for years 2015 through 2019. This rich data set establishes with greater certainty any causal links between race, gender and economic outcomes.

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

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

^{141.} Initially, the Census Bureau contacted approximately 3.5 million households. For the analysis reported in this Chapter, we examined over 175,000 observations. For more information about the ACS PUMS, see https://www.census.gov/programs-surveys/acs/.

race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence in the analysis.

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

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

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

Looking at construction data, we report data on the share of a demographic group that forms a business (business formation rates); the probabilities that a demographic group will form a business relative to White men (business formation

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

probabilities); the differences in wages received by a demographic group relative to White men (wage differentials); and the differences in business earnings received by a demographic group relative to White men (business earnings differentials). Where there were too few observations to make reliable estimates, the values for these groups will listed as "---".

1. Business Formation 143

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 ACS data. ¹⁴⁴ Table 5-1 presents these results. The Table indicates that White men have higher business formation rates compared to non-Whites and White women.

Table 5-1: Business Formation Rates Construction, 2015 - 2019

Demographic Group	Business Formation Rates		
Black			
Hispanic	4.6%		
Native American	7.9%		
Asian			
Other			
White Women	12.0%		
Non-White Male	6.2%		
White Male	12.8%		

Source: CHA calculations from the American Community Survey

The above business formation rates just look at the proportion of individuals in construction who form businesses. However, this propensity to be self-employed is influenced by a number of factors and thus, racial differences in business formation rates might actually be a function of other factors such as age and education. To control for these other factors, this analysis employs a probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender. Appendix B provides more information on the probit regression procedure. Table 5-2 presents the results of this analysis. Hispanics are 4.9 percent less likely to form a

^{143.} Business formation rates represents the share of the population that are self-employed.

^{144.} There were too few observations among Blacks, Asians, and Other in this sector to make reliable estimates. Therefore, the values for these groups will listed as "---".

business compared to White men after other key explanatory variables are controlled and this coefficient is statistically significant at the 0.001 level. The coefficients for Native Americans and White Women are negative (3.0 percent and 0.9 percent, respectively) but they are not statistically significant. These differences support the inference that minority- and woman-owned business enterprises suffer major barriers to equal access to entrepreneurial opportunities in the State of Oklahoma.

Table 5-2: Business Formation Probabilities Relative to White Males Construction, 2015 - 2019

Demographic Group	Probability of Forming a Business Relative to White Men
Black	
Hispanic	-4.9%***
Native American	-3.0%
Asian	
Other	
White Women	-0.9%

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

2. Differences in Wages and Salary Incomes

While the focus of this analysis is discrimination in business opportunities, it is important to understand the impact of race and gender on wage and salary incomes. This is because wage and salary income can be a determinant of business formation either via a person's credit-worthiness or their ability to self-finance. Multiple regression statistical techniques allowed us to examine the impact of race and gender on wage and salary income while controlling for other factors, such as education, age, and occupation. ¹⁴⁵

Using these techniques and ACS data, we found that non-Whites and White women received lower wages than White men. Table 5-3 presents these data. The difference ranges from 7.4 percent for Hispanics to 48.5 percent for White women.

^{145.} See Appendix A for a detailed explanation of multiple regression statistical analysis.

Table 5-3: Wage Differentials for Selected Groups Relative to White Men

Construction, 2015 - 2019

Demographic Group	Wages Relative to White Men (% Change)	
Black	-44.5%***	
Hispanic	-7.4%*	
Native American	-11.2%*	
Asian	-19.8%	
Other	-11.7%	
White Women	-48.5%***	

Source: CHA calculations from the American Community Survey

3. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by non-Whites and White women entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 5-4 presents these findings. Hispanics earned less than White men and the results were significant at the 0.01 level.

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

^{*} Indicates statistical significance at the 0.05 level

Table 5-4: Business Earnings Differentials for Selected Groups Relative to White Men

Construction, 2015 - 2019

Demographic Group	Earnings Relative to White Men (% Change)
Black	
Hispanic	-283.0% ^{*a}
Native American	-5.1%
Asian	
Other	
White Women	98.6%

a. The proper way to interpret a coefficient that is less than negative 100 percent (e.g., the value of the coefficient for Hispanic in Table 5-4), is by the percentage amount non-DBEs earn that is more than the group in question. In this case, non-DBEs earn 283 percent more than Hispanics.

Source: CHA calculations from the American Community Survey
** Indicates statistical significance at the 0.01 level

4. Conclusion

Table 5-1 shows that differentials exist between the business formation rates of non-Whites and White women compared to White males. Table 5-2 presents the results of a further analysis, which indicated that even after considering potential mitigating factors, the differential still exists. Tables 5-3 and 5-4 present data indicating differentials in wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect non-Whites and White women entrepreneurs.

C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2017 Annual Business Survey

In 2017, the Census Bureau stopped administering the Survey of Business Owner ("SBO"). It replaced the SBO (and the Annual Survey of Entrepreneurs and the Business R&D and Innovation for Microbusinesses Survey) with the Annual Business Survey ("ABS") and the Nonemployer Statistics by Demographics ("NES-

D"). ¹⁴⁶ In 2017, the ABS surveyed about 850,000 employer firms (firms with paid employees) and collected data on a variety of variables documenting ownership characteristics including race, ethnicity, and gender. It also collected data on the firms' business activity, with variables marking the firms' number of employees, payroll size, and sales. ¹⁴⁷ The most recent data available for the purposes of this analysis are from 2017.

With these data, we grouped the firms into the following ownership categories: 148,149

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

For purposes of this analysis, the first four groups were aggregated to form a non-White category. Since our interest is the treatment of non-White-owned firms and White women-owned firms, the last five groups were aggregated to form one category. To ensure this aggregated group is described accurately, we label this group "not non-White/non-White women". While this label is cumbersome, it is important to be clear that 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.

Because the bulk of the contracts we analyzed from ODOT were from the construction sector, we analyzed ABS data from this sector. However, the nature of the ABS data – a sample of all businesses, not the entire universe of all businesses – required some adjustments. In particular, we had to define the construction sec-

^{146.} While the SBO surveyed employer firms – firms with paid employees - and nonemployer firms – firms without paid employees, the ABS surveys employer firms and the NES-D surveys nonemployer firms.

^{147.} For more information on the Annual Business Survey see https://www.census.gov/programs-surveys/abs/about.html.

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

^{149.} For expository purposes, the adjective "non-Hispanic" will not be used in this Chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Hispanic.

tor at the 2-digit North American Industry Classification System ("NAICS") code level (NAICS Code 23), and therefore our sector definitions did not exactly correspond to the definitions used to analyze the ODOT's contract data in Chapter IV, where we were able to determine sectors at the 6-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells in some cases was so small that the Census Bureau did not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe. We therefore report 2-digit data.

For a baseline analysis, we examined Construction in the State of Oklahoma. Table 5-5 presents data on the percentage share that each group has of the total of each of the following four business outcomes:

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

Panel A of Table 5-5 presents data for the four basic non-White racial groups 150,151:

- Black
- Hispanic
- Native American
- Asian

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

- Non-White
- White Women
- Not non-White/Not White Women¹⁵²

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

^{150.} Unlike the American Community Survey, the American Business Survey does have an Other category. Survey respondents must identify as one of the four groups.

^{151.} As was the case with the analysis of the American Community Survey, there were too few Native American firms in the American Business Survey to make reliable estimates.

^{152.} Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

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.

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

Construction, 2017

	Share of Number of Employer Firms	Share of Sales & Receipts - Employer Firms	Number of Paid Employees	Annual payroll	
Panel A: Distribution of Non-White F	Panel A: Distribution of Non-White Firms				
Black					
Hispanic	5.7%	1.9%	3.2%	2.2%	
Asian					
Native American	7.0%	4.1%	4.5%	3.8%	
Total Non-White	13.3%	6.5%	8.3%	6.2%	
Panel B: Distribution of All Firms					
Non-White	13.3%	6.5%	8.3%	6.2%	
White Woman	8.5%	6.7%	8.6%	8.5%	
Not non-White/Not White Woman	78.3%	86.8%	83.1%	85.3%	
Total	100.0%	100.0%	100.0%	100.0%	

Source: CHA calculations from Annual Business Survey

Since the central issue is the possible disparate treatment of non-White and White woman firms, we calculated three disparity ratios to examine if a group's share of the number of firms corresponds to its share of sales, employees, and payroll. Table 5-6 presents these data as indicators of firm utilization. Below are the three ratios we calculated:

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

For example, the disparity ratio of sales and receipts share for employer firms over the share of total number of employer firms for Hispanic firms is 32.6 percent (as shown in Table 5-6). This is derived by taking the Hispanic share of sales and receipts for employer firms (1.9 percent) and dividing it by the Hispanic share of

total number of employer firms (5.7 percent) that are presented in Table 5-5. ¹⁵³ If Hispanic-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.

Table 5-6: Disparity Ratios of Firm Utilization Measures
Construction, 2017

	Ratio of Sales to Number of Employer Firms	Ratio of Employees to Number of Employer Firms	Ratio of Payroll to Number of Employer Firms		
Panel A: Distribution of Non-White Firms					
Black					
Hispanic	32.6%	56.6%	38.5%		
Asian					
Native American	58.9%	64.8%	53.8%		
Total Non-White	48.9%	62.8%	46.9%		
Panel B: Disparity Ratios for All Firms					
Non-White	48.9%	62.8%	46.9%		
White Women	79.4%	101.3%	99.6%		
Not non-White/Not White	110.9%	106.2%	109.0%		
Total	100.0%	100.0%	100.0%		

Source: CHA calculations from Annual Business Survey

The 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. ¹⁵⁴ We found that ten of the ratios for non-Whites and White women met this test. The results are in Table 5-6. ¹⁵⁵ These results support the conclusions drawn from the anecdotal interviews and analysis of ODOT's contract data that DBEs face obstacles to achieving success on construction contracts.

^{153.} As mentioned in the previous chapter, the impact of presenting in tables rounded figures causes a distinction between the actual number and a number calculated using presented rounded figures. With the example in the paragraph, 1.9 divided by 5.7 is not 32.6 percent. But 1.9 and 5.7 are the rounded presentation of the actual numbers: 1.87308711760454 and 5.73857598299681. Dividing these two numbers results in 32.6 percent.

^{154. 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.").

^{155.} Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results were not conducted.

D. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. Participants in the anecdotal data collection universally agreed to this fundamental fact. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and woman-owned firms, had difficulties obtaining needed working capital to perform on ODOT's contracts and subcontracts, as well as expand the capacities of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There are extensive federal agency reports and 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. ¹⁵⁶

1. Federal Reserve Board Small Business Credit Surveys 157

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

a. 2021 Small Business Credit Survey

The 2021 Small Business Credit Survey ¹⁵⁸ reached more than 15,000 small businesses, gathering insights about the COVID-19 pandemic's impact on small businesses, as well as business performance and credit conditions. The Survey yielded 9,693 responses from a nationwide convenience sample of small employer firms with 1-499 full- or part-time employees (hereafter "firms") across all 50 states and the District of Columbia. The survey was fielded in September and October 2020, approximately six months after the onset of the pandemic. The timing of the survey is important to the interpretation of the results. At the time of the survey, the Paycheck Protection Program authorized by the CARES Act had recently closed, and prospects for additional stimulus funding were uncertain. Additionally, many government-mandated business closures had been lifted as the number of new COVID-19 cases plateaued in advance of a significant increase in cases by the year's end.

^{156.} See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," Journal of Political Economy, Vol. 97, No. 4, 1989, pp. 808-827; David S. Evans and Linda S. Leighton, "Some empirical aspects of entrepreneurship," The American Economic Review, Vol. 79, No. 3, 1989, pp. 519-535.

^{157.} This survey offers baseline data on the financing and credit positions of small firms before the onset of the pandemic. *See fedsmallbusiness.org.*

^{158.} https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/2021-sbcs-employer-firms-report.

The 2020 survey findings highlight the magnitude of the pandemic's impact on small businesses and the challenges they anticipate as they navigate changes in the business environment. Few firms avoided the negative impacts of the pandemic. Furthermore, the findings reveal disparities in experiences and outcomes across firm and owner demographics, including race and ethnicity, industry, and firm size.

Overall, firms' financial conditions decline sharply and those owned by people of color reported grater challenges. The most important anticipated challenge differed by race and ethnicity of the owners. Among the findings for employer firms relevant to discriminatory barriers were the following:

- For Black-owned firms, credit availability was the top expected challenge, while Asian-owned firms disproportionately cited weak demand.
- The share of firms in fair or poor financial conditions varied by race: 79 percent of Asian-owned firms, 77 percent of Black-owned firms, 66 percent of Hispanic-owned firms and 54 percent of White-owned firms reported this result.
- The share of firms that received all the financing sought to address the impacts of the pandemic varied by race: 40 percent of Whiteowned firm received all the funding sought, but only 31 percent of Asian-owned firms, 20 percent of Hispanic-owned firms and 13 percent of Black-owned firms achieved this outcome.
- Demand for product or services was the top expected challenge for Asian-owned firms, while credit availability was the primary concern for Black-owned firms.

b. 2018 Small Business Credit Survey

The 2018 Small Business Credit Survey¹⁵⁹ focused on minority-owned firms. The analysis was divided into two types: employer firms and nonemployer firms.

i. Employer firms

Queries were submitted to businesses with fewer than 500 employees in the third and fourth quarters of 2018. Of the 7,656 firms in the unweighted sample, five percent were Asian, ten percent were Black, six percent were Hispanic, and 79 percent were White. Data were then weighted by number of employees, age, industry, geographic location

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^{159.} Small Business Credit Survey ("SBCS"), https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.

(census division and urban or rural location), and minority status to ensure that the data is representative of the nation's small employer firm demographics. 160

Among the findings for employer firms relevant to discriminatory barriers were the following:

- Not controlling for other firm characteristics, fewer minority-owned firms were profitable compared to non-minority-owned firms during the past two years. ¹⁶¹ On average, minority-owned firms and non-minority-owned firms were about as likely to be growing in terms of number of employees and revenues. ¹⁶²
- Black-owned firms reported more credit availability challenges or difficulties obtaining funds for expansion—even among firms with revenues of more than \$1M. For example, 62 percent of Blackowned firms reported that obtaining funds for expansion was a challenge, compared to 31 percent of White-owned firms.¹⁶³
- Black-owned firms were more likely to report relying on personal funds of owner(s) when they experience financial challenges to fund their business. At the same time, White- and Asian-owned firms reported higher debt levels than Black- and Hispanic-owned firms. 164
- Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing. 40 percent of Black-owned firms did not apply because they were discouraged, compared to 14 percent of White-owned firms.¹⁶⁵
- Low credit score and lack of collateral are the top reported reasons for denial of Black- and Hispanic-owned firms.¹⁶⁶

ii. Nonemployer firms¹⁶⁷

Queries were submitted to nonemployer firms in the third and fourth quarters of 2018. Of the 4,365 firms in the unweighted sample, five percent were Asian, 24 percent were Black, seven percent were His-

^{160.} *Id* at 22. Samples for SBCS are not selected randomly. To control for potential biases, the sample data are weighted so that the weighted distribution of firms in the SBCS matches the distribution of the small firm population in the United States by number of employees, age industry, geographic location, gender of owner, and race or ethnicity of owners.

^{161.} *Id*. at 3.

^{162.} *Id.* at 4.

^{163.} Id. at 5.

^{164.} *Id.* at 6.

^{165.} Id. at 9.

^{166.} *Id.* at 15.

^{167.} Id. at 18.

panic, and 64 percent were White. Data were then weighted by age, industry, geographic location (census division and urban or rural location), and minority status. ¹⁶⁸

Among the findings for nonemployer firms relevant to discriminatory barriers were the following:

- Black-owned firms were more likely to operate at a loss than other firms. ¹⁶⁹
- Black-owned firms reported greater financial challenges, such as obtaining funds for expansion, accessing credit and making operating expenses than other businesses.¹⁷⁰
- Black- and Hispanics-owned firms submitted more credit applications than White-owned firms.¹⁷¹

c. 2016 Small Business Credit Surveys

The 2016 Small Business Credit Survey¹⁷² obtained 7,916 responses from employer firms with race/ethnicity information and 4,365 nonemployer firms in the 50 states and the District of Columbia. Results were reported with four race/ethnicity categories: White, Black or African-American, Hispanic, and Asian or Pacific Islander.¹⁷³ It also reported results from womanowned small employer firms, defined as firms where 51 percent or more of the business is owned by women, and compared their experiences with male-owned small employer firms.

i. The 2016 Report on Minority-Owned Businesses 174

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

Demographics¹⁷⁵

The SBCS found that Black-, Asian-, and Hispanic-owned firms tended to be younger and smaller in terms of revenue size, and they were concentrated in different industries. Black-owned firms were concentrated

^{168.} *Id.* at 18.

^{169.} *Id*.

^{170.} *Id*. at 19.

^{171.} *Id.* at 20.

 $^{172. \}quad https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.$

^{173.} When the respondent sample size by race for a survey proved too small, results were communicated in terms of minority vis-à-vis non-minority firms.

 $^{174. \}quad https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms.$

^{175. 2016} SBCS, at 2.

most in the healthcare and education industry sectors (24 percent). Asian-owned firms were most concentrated in professional services and real estate (28 percent). Hispanic-owned firms were most concentrated in nonmanufacturing goods production and associated services industry, including building trades and construction (27 percent). White-owned firms were more evenly distributed across several industries but operated most commonly in the professional industry services and real estate industries (19 percent), and nonmanufacturing goods production and associated services industry (18 percent). ¹⁷⁶

Profitability Performance Index¹⁷⁷

After controlling for other firm characteristics, the SBCS found that fewer minority-owned firms were profitable compared to non-minority-owned firms during the prior two years. This gap proved most pronounced between White- (57 percent) and Black-owned firms (42 percent). On average, however, minority-owned firms and non-minority-owned firms were nearly as likely to be growing in terms of number of employees and revenues.

Financial and Debt Challenges/Demands¹⁷⁸

The number one reason for financing was to expand the business or pursue a new opportunity. Eighty-five percent of applicants sought a loan or line of credit. Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing.

Black-, Hispanic-, and Asian-owned firms applied to large banks for financing more than they applied to any other sources of funds. Having an existing relationship with a lender was deemed more important to White-owned firms when choosing where to apply compared to Black-, Hispanic- and Asian-owned firms.

The SBCS also found that small Black-owned firms reported more credit availability challenges or difficulties for expansion than White-owned firms, even among firms with revenues in excess of \$1M. Black-owned firm application rates for new funding were ten percentage points higher than White-owned firms; however, their approval rates were 19 percentage points lower. A similar but less pronounced gap existed between Hispanic- and Asian-owned firms compared with White-owned firms. Of those approved for financing, only 40 percent of

^{176.} *Id.* Forty-two percent of Black-owned firms, 21 percent of Asian-owned firms, and 24 percent of Hispanic-owned firms were smaller than \$100K in revenue size compared with 17 percent of White-owned firms.

^{177.} *Id*. at 3-4.

^{178.} Id. at 8-9; 11-12; 13; 15.

minority-owned firms received the entire amount sought compared to 68 percent of non-minority-owned firms, even among firms with comparably good credit scores.

Relative to financing approval, the SBCS found stark differences in loan approvals between minority-owned and White-owned firms. When controlling for other firm characteristics, approval rates from 2015 to 2016 increased for minority-owned firms and stayed roughly the same for non-minority-owned firms. Hispanic- and Black-owned firms reported the highest approval rates at online lenders. ¹⁷⁹

Low credit score and lack of collateral were the top reported reasons for denial of Black- and Hispanic-owned firms. Satisfaction levels were lowest at online lenders for both minority- and non-minority-owned firms. A lack of transparency was cited as one of the top reasons for dissatisfaction for minority applicants and borrowers.

Forty percent of non-applicant Black-owned firms reported not applying for financing because they were discouraged (expected not to be approved), compared with 14 percent of White-owned firms and 21 percent of Hispanic-and Asian-owned firms. The use of personal funds was the most common action taken in response to financial challenges, with 86 percent of Black-owned firms, 77 percent of Asian-owned firms, 76 percent of White-owned firms, and 74 percent of Hispanic-owned firms using this as its source.

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

Business Location Impact¹⁸⁰

Controlling for other firm characteristics, minority-owned firms located in low-income minority zip codes reported better credit outcomes at large banks, compared with minority-owned firms in other zip codes. By contrast, at small banks, minority-owned firms located in low- and

^{179.} The share of minority-owned firms receiving at least some financing was lower across all financing products, compared with non-minority.

^{180.} Id.at 17.

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

Nonemployer Firms ¹⁸¹

Nonemployer firms reported seeking financing at lower rates and experienced lower approval rates than employer firms, with Black-owned nonemployer firms and Hispanic-owned nonemployer firms experiencing the most difficulty. White-owned nonemployer firms experienced the highest approval rates for new financing, while Black-owned nonemployer firms experienced the lowest approval rates for new financing.

ii. The 2016 Report on Women-Owned Businesses ¹⁸²

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

Firm Characteristics: Woman-Owned Firms Start Small and Remain Small and Concentrate in Less Capital-Intensive Industries¹⁸³

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

Woman-owned firms were concentrated in less capital-intensive industries. Two out of five woman-owned firms operated in the healthcare and education or professional services and real estate industries. Maleowned firms were concentrated in professional services, real estate, and non-manufacturing goods production and associated services. ¹⁸⁴

Profitability Challenges and Credit Risk Disparities 185

Woman-owned firms were less likely to be profitable than male-owned firms. These firms were more likely to report being medium or high credit risk compared to male-owned firms. Notably, gender differences

^{181.} *Id.* at 21.

^{182.} https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-WomenOwnedFirms-2016.pdf.

^{183. 2016} SBCS, at 1-5.

^{184.} Non-manufacturing goods production and associated services refers to firms engaged in Agriculture, Forestry, Fishing, and Hunting; Mining, Quarrying, and Oil and Gas Extraction; Utilities; Construction; Wholesale Trade; Transportation and Warehousing (NAICS codes: 11, 21, 22, 23, 42, 48-49).

^{185.} *Id.* at 6-7.

by credit risk were driven by woman-owned startups. Among firms older than five years, credit risk was indistinguishable by the owner's gender.

Financial Challenges During the Prior Twelve Months 186

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

Debt Differences 187

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

Demands for Financing¹⁸⁸

Forty-three percent of woman-owned firms applied for financing. Similar to male-owned firms, woman-owned firms most frequently applied for loans and lines of credit. Both woman- and male-owned firms were most successful at small banks. Both reported that the most common reason for financing was business expansion. Woman-owned applicants tended to seek smaller amounts of financing even when their revenue size was comparable.

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

Firms That Did Not Apply for Financing¹⁸⁹

Woman-owned firms reported being discouraged from applying for financing for fear of being turned down at a greater rate: 22 percent compared to 15 percent. Woman-owned firms cited low credits scores

^{186.} *Id.* at 8.

^{187.} *Id.* at 10.

^{188.} *Id.*, at 16.

^{189.} Id. at 14.

more frequently than male-owned firms as their chief obstacle in securing credit. By contrast, male-owned businesses were more likely to cite performance issues.

Lender Satisfaction 190

Woman-owned firms were most consistently dissatisfied by lenders' lack of transparency and by long waits for credit decisions. However, they were notably more satisfied with their borrowing experiences at small banks rather than large ones.

2. Minority Business Development Agency Report¹⁹¹

The 2010 Minority Business Development Agency Report, "Disparities in Capital Access Between Minority and non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs", summarizes results from the Kauffman Firm Survey, data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program and additional extensive research on the effects of discrimination on opportunities for minority-owned firms. The report found that

Low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner's wealth can be invested directly in the business, used as collateral to obtain business loans or used to acquire other businesses. 192

It also found, "the largest single factor explaining racial disparities in business creation rates are differences in asset levels". 193

Some additional key findings of the Report include:

- Denial of Loan Applications. Forty-two percent of loan application from minority firms were denied compared to 16 percent of loan applications from non-minority-owned firms.¹⁹⁴
- Receiving Loans. Forty-one percent of all minority-owned firms received loans compared to 52 percent of all non-minority-owned firms. MBEs are

^{190.} Id. at 26.

^{191.} Robert W. Fairlie and Alicia Robb, *Disparities in Capital Access Between Minority and non-Minority Businesses: The Troubling Reality of Capital Limitations Faced by MBEs*, Minority Business Development Agency, U.S. Department of Commerce, 2010 ("MBDA Report" (https://archive.mbda.gov/sites/mbda.gov/files/migrated/files-attachments/DisparitiesinCapitalAccessReport.pdf)).

^{192.} *Id.* at 17.

^{193.} *Id.* at. 22.

^{194.} *Id*. at 5.

less likely to receive loans than non-minority-owned firms regardless of firm size. 195

- Size of Loans. The size of the loans received by minority-owned firms averaged \$149,000. For non-minority-owned firms, loan size averaged \$310,000.
- Cost of Loans. Interest rates for loans received by minority-owned firms averaged 7.8 percent. On average, non-minority-owned firms paid 6.4 percent in interest. ¹⁹⁶
- Equity Investment. The equity investments received by minority-owned firms were 43 percent of the equity investments received by non-minority-owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43 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. ¹⁹⁷

3. Survey of Small Business Finances

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for 1993, 1998 and 2003. ¹⁹⁸ These Surveys of Small Business Finances are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than White-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive. ¹⁹⁹

^{195.} Id.

^{196.} *Id*.

^{197.} Id.

^{198.} https://www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm. These surveys have been discontinued. They are referenced to provide some historical context.

^{199.} 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).

4. Other Reports

- Dr. Timothy Bates found venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.²⁰⁰
- According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms' investments into their own firms were about 18 percent lower in the first year of operations compared to those of nonminority-owned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their own firms were about 36 percent lower compared to those of non-minority-owned firms.²⁰¹
- Another study by Fairlie and Robb found minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses.²⁰²

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-DBEs in our interview groups who were second or even higher generation firms doing business in the market area. This generational lack of self-employment capital disadvantages minorities, whose earlier generations were denied business ownership through either *de jure* segregation or *de facto* exclusion.

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

^{200.} See Bates, T., "Venture Capital Investment in Minority Business," Journal of Money Credit and Banking 40, 2-3 (2008).

^{201.} Fairlie, R.W. and Robb, A, Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States, (Cambridge: MIT Press, 2008).

^{202.} Fairlie, R.W. and Robb, A., *Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States*, (Cambridge: MIT Press, 2008).

^{203.} Fairlie, R W., "The Absence of the African-American Owned Business, An Analysis of the Dynamics of Self-Employment," *Journal of Labor Economics*, Vol. 17, 1999, pp 80-108.

^{204.} Hout, M. and Rosen, H. S., "Self-employment, Family Background, and Race," *Journal of Human Resources*, Vol. 35, No. 4, 2000, pp. 670-692.

Intergenerational links are also critical to the success of the businesses that do form. ²⁰⁵ Working in a family business leads to more successful firms by new owners. One study found that only 12.6 percent of Black business owners had prior work experiences in a family business as compared to 23.3 percent of White business owners. ²⁰⁶ 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. ²⁰⁷ The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success. ²⁰⁸ Minorities and women in our interviews reported that they felt excluded from the networks that help to create success in their industries.

F. Conclusion

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

^{205.} Fairlie, R.W. and Robb, A., "Why Are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital," *Journal of Labor Economics*, Vol. 24, No. 2, 2007, pp. 289-323.

^{206.} Id.

^{207.} Allen, W. D., "Social Networks and Self-Employment," *Journal of Behavioral and Experimental Economics (formerly The Journal of Socio-Economics)*, Vol. 29, No. 5, 2000, pp. 487-501.

^{208. &}quot;Increasing MBE Competitiveness through Strategic Alliances" (Minority Business Development Agency, 2008).

VI. QUALITATIVE EVIDENCE OF RACE AND GENDER BARRIERS IN THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S MARKET

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities. This evidence is relevant to the question of whether despite the operations of the program, DBEs continue to face discriminatory barriers to their full and fair participation in ODOT opportunities. Anecdotal evidence also sheds light on the likely efficacy of using only raceand gender-neutral remedies designed to benefit all small contractors to combat discrimination and achieve the objectives of the DBE program. As discussed in Chapter II, this type of anecdotal data has been held by the courts to be relevant and probative of whether an agency continues to have a need to use narrowly tailored DBE contract goals to remedy the effects of past and current discrimination and create a level playing field for contract opportunities for all firms.

The Supreme Court has held that anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life". ²⁰⁹ 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. ²¹⁰ The courts have held that 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." ²¹¹ "[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;

^{209.} International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

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).

^{211.} Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513, 1120, 1530 (10th Cir. 1994).

indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough."²¹²

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. In finding the State of North Carolina's Historically Underutilized Business program to be constitutional, the court of appeals opined that "[p]laintiff 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." 214

To explore this type of anecdotal evidence of possible discrimination against minorities and women in ODOT's geographic and industry markets and the effectiveness of its current race-conscious and race-neutral measures, we conducted eight small group and individual business owner interviews, totaling 98 participants. We also received written comments. We met with a broad cross section of business owners from ODOT's geographic and industry markets. Firms ranged in size from large, long established prime contracting and consulting firms to new market entrants. We sought to explore their experiences in seeking and performing public and private sector construction and construction-related prime contracts and subcontracts with ODOT, other government agencies, and in the private sector. We also elicited recommendations for improvements to ODOT's DBE Program.

Many minority and woman owners reported that while some progress has been made in integrating their firms into public and private sector transportation contracting activities through ODOT's program, significant barriers on the basis of race or gender remain for many DBEs.

In addition to the group interviews, we conducted an electronic survey of businesses in ODOT's market area about their experiences in obtaining work, marketplace conditions and ODOT's DBE program. Sixty DBE firms responded to the survey. The results were similar to those of the interviews. Among minority- and woman-owned firms, almost a third (31.7 percent) reported that they still experience barriers to equal contracting opportunities; more than a quarter (28.3 percent) said their competency was

^{212.} Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895, 926 (11th Cir. 1997).

^{213.} H.B. Rowe Co., Inc. v. Tippett, 615 F.3d 233, 249 (4th Circ. 2010).

^{214.} Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 950, 989 (10th Cir. 2003), cert. denied, 540 U.S. 1027 (2003).

questioned because of their race or gender; and almost a fifth (16.7 percent) indicated they had experienced job-related sexual or racial harassment or stereotyping.

A. Business Owner Interviews

We conducted eight small group and individual business owner interviews a total of ninety-eight participants. We sought to explore DBEs' experiences in seeking and performing on ODOT and private sector contracts and we elicited recommendations for effective measures to reduce barriers and create equal opportunities. We also interviewed larger prime contractors, who have performed work for ODOT, about their experiences with ODOT's DBE program.

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

Several minority and woman owners reported that they experience negative assumptions about their competency and capabilities.

Native comments, there's always a good Pocahontas joke. I'm just like, you're freaking ridiculous at this point. Mascots. They want to put pressure on you to publicly say that you support mascots.

I feel like they just see that we're a DBE sometimes, and they think that we're unqualified. And we were in business for 18 years, I think, before we got our DBE.

I've been up against people who assume... that we don't know what we're doing more than they give us the benefit of the doubt. And I fight that on every job.

One of the biggest issues I see with the DBE program is that the primes are not made to respect the program. The primes have called the DBE participants lazy. They've called us couch potatoes. And this is in open meetings recorded. They have told the supportive service staff to wrangle in their cats. Just on a good faith issue and this is all a recorded meeting.

Some felt there is a stigma to being a certified firm.

I believe there can be [a stigma to being a DBE].

They almost resent you for [being a DBE] sometimes.

In terms of minority, I think that I did a lot of work before I was a minority-registered company where I didn't get the kind of attitude that I got afterwards from people. Especially if they had to get DBEs on

board, if it felt like they were getting pushed into getting DBEs on board. There was a little bit of a sense of, "Do I really trust this?" or "This is getting crammed down my throat, and now I have to deal with this."

Some DBEs had passed up work because of the hostile environment.

I've had a couple of experiences like that, where I've gone from one project to the next and the same individual [is there].... Then I would get a remark from him. We got on another project and there he was again; we end up still losing money because of him.... We are presently being asked to go to another project and he's there and I just flat out refused. I said, "Why would I go to a project when I know already that this gentleman would be influencing the other managers that are there and I'm just digging my grave?" So, I said, "I will pass on this project."

Several women construction owners had experienced assumptions about their role and authority.

Not just from the minority perspective but from the woman-owned perspective in engineering. It's like, "Don't you want to go out and get us some lunch" type thing. So even though I have my crew and my crew is mostly male, there's that whole perception thing for the woman part.

Early in my career [I experienced discrimination] and it was not about being a Native American, it was about [being female], I was just assumed I was the administrative person.

The prime expects the DBE to handle "DBE problems".... That's your program. You get in there and you talk to those people, and you figure out that problem and you get back with me.

It was not uncommon for woman owners to be dismissed or ignored.

I think [the prime contractor] dismissed [my concerns about an unsafe working condition] because I was a woman [and someone died on the work site].

I answer the phone most of the time. If they want to talk about a job, I'll instigate the conversation and tell them who I am and what can I do for them? They say, "No, really, I don't need to talk to the secretary, I need to now talk to someone who can handle what I need to talk about." I'll be like, "Well, I'm the president, I can handle whatever you need." I run into some things like that.

We were having issues with [a prime contractor]. They're a very large contractor. We were having issues with them. I told them that I no longer wanted to work for them. And because we've worked for them

for years, their dad and my dad started way back when, [I] asked that their president, who's my age now, give me a call. Well, that message never got to him. And that man then called my husband, not the president, another man called my husband after I asked that I be contacted.

Some women reported poor treatment because of their gender.

Because I'm a female and I deal with every aspect of the job, they tend to try to push me around, bullying me.

I've just dealt with the company here not too long ago and a guy was just horribly rude to me. Just very demeaning, it was awful. We got in there and we did the work, and our crew did a great job.... I don't think he would've treated me like that if I was a man. He may have still been a jerk, but I don't think he would have been as demeaning.

Sending in a White male to deal with a prime contractor was one strategy to address sexist situations.

I actually sent my husband in. I tried to get in front of the decision makers at one particular company. And then I gave up and I sent my husband in, and before you know it, we had a phone call and a meeting.... [We were] invited down to come down and have a meeting with [them]. And I sat there as the secretary, and it was just something I personally told my husband I wanted to see if we could get further down the road with. And yeah, as long as I sat as the secretary and he asked all the questions we actually got into the office, we got invited down to the office. We got to sit in and meet with the decision makers and I sat there taking notes like the good admin that I am.

In terms of sexism, it's not something I've had to deal with probably in part, because I have hired a project manager who's a competent mid 40s, White male. I can't say it's not happening. It's just I've found a way around it.

Others refused to use such a strategy to overcome resistance and assumptions.

[I'm] way too stubborn for that. This type of thing is not going to change if we run from it. Not that that's not a very good idea that she has and it's working well for her obviously, but I'm too stubborn for that. No, they're going to accept me. I know what I'm doing and eventually they'll understand that.

You've just got to be able to hang with them. But in general, I don't have that issue. I want to make that clear with ODOT. I do not have,

very hardly ever and if they ever bug me, I'll bark right back and they don't do it again.

Several DBEs stated that once they were able to get work, concerns about their abilities were assuaged.

I'm a very short woman, by the way, so getting patted on the head, I mean, I get that all the time.... You do have to prove yourself, and I've got great relationships. I don't think once you've shown them what you can do there's a problem, but there's definitely that perception when I walk in the door, no question.

What happens is after a while when we prove ourselves, we have a good relationship, and that's all gone out the window. But certainly, the start doesn't start that easy unless you already know the person.

I used to work for one of the bigger prime contractors and then I branched off from them and started this company with my uncle. They've been burned a lot by, I guess, other DBE contractors in the past. So, they have this perception of hey, these guys don't know what they're doing, they're a little bit more expensive. I can get this other non-DBE contractor to come in and do it cheaper and I know they can do it. So, I think it's just a perception that it's going to take time to change that. Like you said, 30 years, it's not going to happen overnight. But I think as long as the DBE, we're doing our subcontracts and we're giving it to them [we will be respected].

It doesn't matter if you're African American, you're Native American, you just earn the respect at times. And then there is some challenges, but you just have to work through them.

I faced [racism and sexism] quite a bit. And you just keep working hard and hope that, the, over time, things will get better.... The struggle still exists.

Some women stated that younger representatives from large non-DBE firms were less likely to harbor biased assumptions.

I run into some obstacles now but I'm working with the next generation. Some of the people that were really, really hard and really didn't like the DBEs and the women and things like that, now their sons or daughters are taking over. I feel like it's a little bit easier. I know I have it easier than she did, but I run into some obstacles here and there. But it's not as frequent as what it used to be.

[Men] expect to be speaking to a man whenever they, construction guys and engineers, they are not used to dealing with women all the time, but it's sort of generational. I just try to laugh it off, not take it personal.

Some woman-owners had not experienced gender-based barriers.

I've always been well respected, and I don't know if that's because I started at ODOT, and I have really good relationships with most all the companies that I worked for, but I built all those relationships. So, because of that, I've never had issue with it.

We have not had any issues with respect or comments or anything at all

One woman had experienced poor quality work from DBEs and felt that the negative expectations might be sometimes warranted.

At the previous companies I worked at, we had a DBE goal, we hired a DBE, but then we were training them how to do their job, which is essentially our job, because they were not qualified to do the work.

B. Anecdotal Survey

To supplement the in-person interviews, we also conducted an anecdotal, electronic survey of firms on our Master DBE Directory; prime firms on the contract data file; firms identified through our outreach efforts; and written comments provided by firms. The survey was comprised of up to forty closed- and open-ended questions and replicated the topics discussed in the business owner interviews. Questions focused on doing business in ODOT's market area, specifically barriers and negative perceptions, access to networks and information, experiences in obtaining work and capacity development, as well as ODOT's DBE program.

The survey was emailed to 531 firm representatives and owners eight times from September 10 to November 16, 2020. The survey was also distributed by several key industry associations and woman and minority business advocacy organizations in February 2021. The response period closed on February 28, 2021.

One-hundred and fifty-six responses were received. After accounting for incomplete and non-relevant responses, usable responses equaled 120 for a net response rate of 22.6 percent. Sixty minority- and woman-owned firms and sixty publicly held and non-minority, woman-owned firms completed the survey, representing a 11.3 percent net response rate for each group.

1. Profile of Survey Respondents

Table 6-1: The race and gender distribution of DBE survey respondents is below.

Table 6-1: Distribution of Race and Gender of Survey Respondents

Firm Ownership Group	Construction	Construction-Related Services (includes Professional Services)	Goods & Services	Total
African-American	0	11	2	13
Hispanic	0	2	0	2
Asian-Pacific/ Subcontinent Asian American	0	1	0	1
Native American/Alaska Native	8	12	2	22
Non-Minority Women	9	12	1	22
DBE Total	17	38	5	60
Publicly Held, Non-DBE Total	23	36	5	60
Respondents Total	40	74	10	120

Chart 6-1: Among minority and woman respondents, 3.3 percent of the firms had worked on ODOT projects only as a prime contractor or consultant; 30.0 percent had worked only as a subcontractor; 36.7 percent had worked as both a prime contractor, consultant and as a subcontractor or subconsultant; and 30.0 percent had not done business on any ODOT contracts. Over three quarters (76.7 percent) of minority- and woman-owned firms responding were DBE certified.

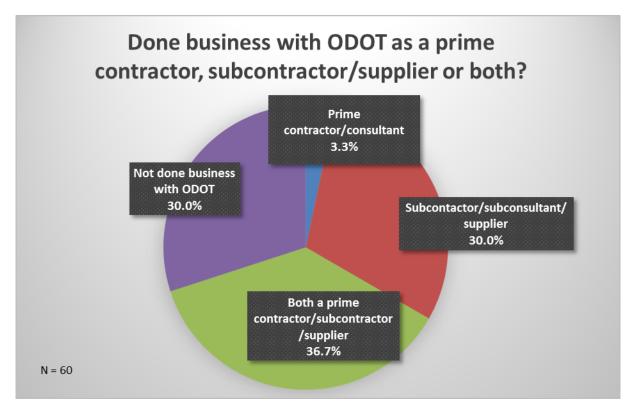


Chart 6-1: Respondent Contractor Status with the ODOT

2. Discriminatory Barriers and Perceptions

Chart 6-2: Almost a third, (31.7percent) of the respondents reported that they experienced barriers to contracting opportunities based on their race and/or gender.

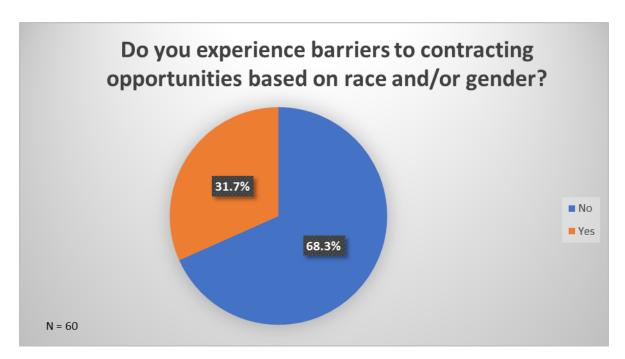


Chart 6-2: Barriers to Contracting Opportunities Based on Race and Gender

Chart 6-3: More than a quarter (28.3 percent) answered yes to the question "Is your competency questioned based on your race and/or gender?"

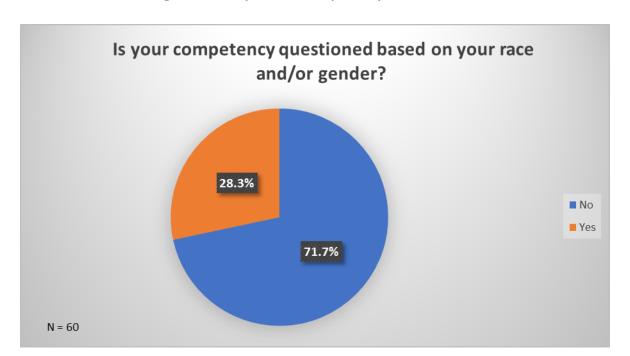


Chart 6-3: Negative Perception of Competency Based on Race or Gender

Chart 6-4: Almost 17 percent (16.7 percent) indicated that they experience job-related sexual or racial harassment or stereotyping.

Chart 6-4: Industry-Related Sexual or Racial Harassment or Stereotyping

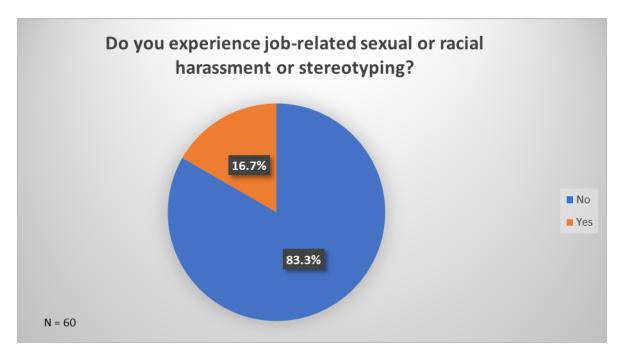


Chart 6-5: Almost 10 percent (8.3 percent) stated they experience discrimination from suppliers or subcontractors because of their race and/or gender.



Chart 6-5: Supplier Pricing and Terms Discrimination Based on Race and Gender

3. Access to Formal/Informal Business and Professional Networks

Chart 6-6: Thirteen percent (13.3 percent) of respondents reported that they did not have the same access to the same information as non-certified firms in their industry.



Chart 6-6: Access to the Same Information as Non-Certified Firms

Chart 6-7: Over ten percent (11.7 percent) of respondents indicated that they do not have access to informal and formal networking information.

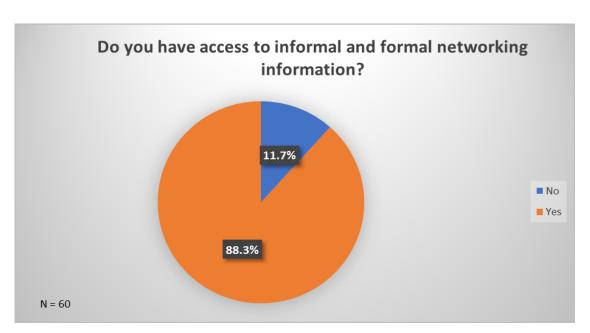


Chart 6-7: Access to Informal and Formal Networking Information

4. Access to Financial Services

Chart 6-8: Among DBEs, almost 7 percent (6.7 percent) reported experiencing barriers to obtaining insurance and 10 percent reported barriers to obtaining surety bonding services.

Chart 6-8: Barriers to Obtaining Insurance and Bonding

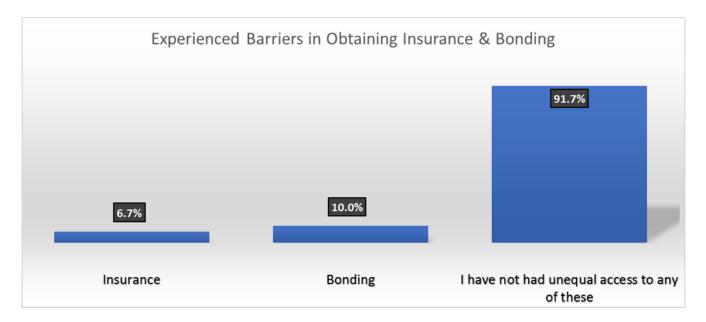


Chart 6-9: Over 6 percent (6.7 percent) said they had unequal access to loans and other types of credit.

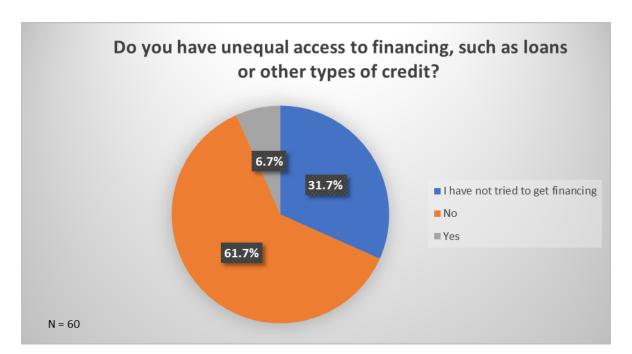


Chart 6-9: Unequal Access to Loans and Other Types of Credit

5. Obtaining Work on an Equal Basis

Chart 6-10: A little over 68 percent (68.3 percent) reported that they are solicited for ODOT or government projects with DBE goals.

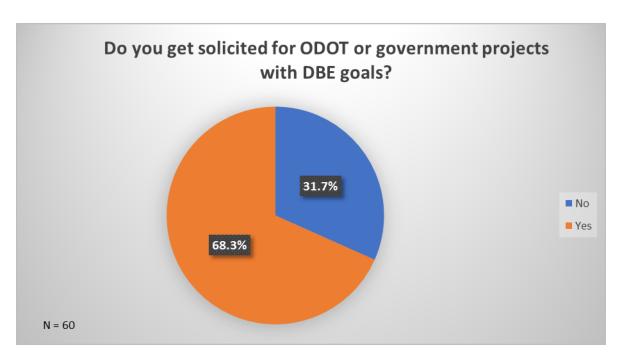


Chart 6-10: Solicitation for ODOT or Government Projects with DBE Goals

Chart 6-11: Almost three quarters (73.3 percent) of minority and woman respondents reported they are solicited for private projects and projects without goals.

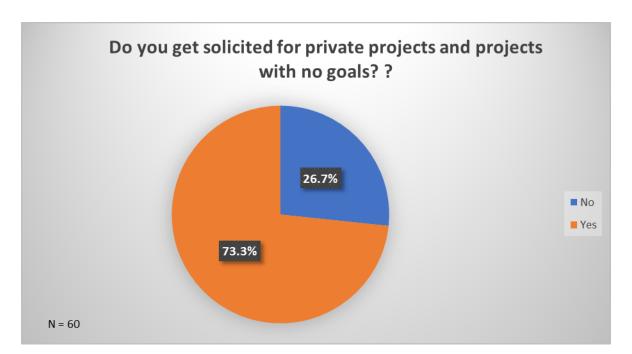


Chart 6-11: Solicitation for Private Projects and Projects Without Goals

6. Capacity for Growth

Chart 6-12: Over 65 percent said their firm's contract size was either well below (48.3 percent) or slightly below (16.7 percent) the amount they are qualified to perform.

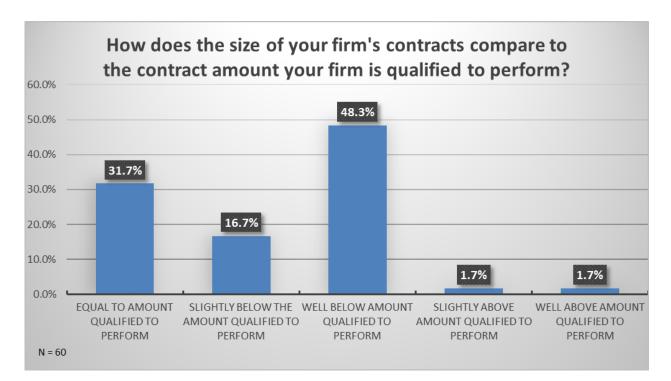


Chart 6-12: Firm Contract Size vs. Contract Amounts Qualified to Perform

7. Prompt Payment

Chart 6-13: Of the contractors who reported doing work for ODOT, almost 80 percent (77.8 percent) said that ODOT paid them promptly. Prime contractors were seen as paying less promptly. A little over 60 percent (63.3 percent) of those doing work for prime contractors said prime contractors paid promptly.

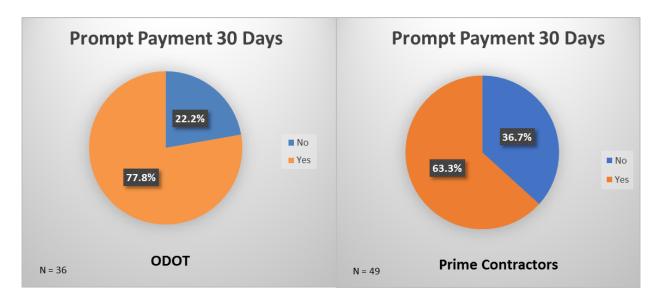


Chart 6-13: Prompt Payment within 30 Days

8. Opportunities for Capacity Development

Chart 6-14: Over a third (35.8 percent) of the respondents reported participating in at least one type of DBE business support or development activity; 66.7 percent indicated they had not participated in any of these programs.

- 8.3 percent had participated in financing or loan programs.
- 5.0 percent had accessed bonding support programs.
- 15.0 percent had received support services such as assistance with marketing, estimating, information technology.
- 5.0 percent had joint ventured with another firm.
- 6.7 percent had participated in a mentor-protégé program or relationship.
- 66.7 percent had not participated in any supportive services program.

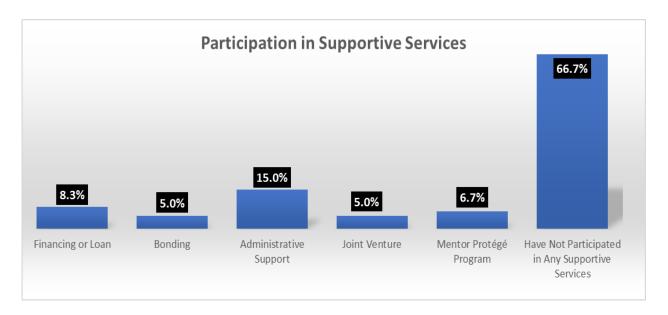


Chart 6-14: Participation in Supportive Services

C. Written Survey Responses

The survey also included open-ended response questions. Open-ended survey responses were consistent with information provided in the business owner interviews and closed-ended questions. Responses to these questions have been categorized and are presented below.

1. Discriminatory attitudes and behaviors

Minority and woman firms related that they continue to experience discriminatory attitudes and behaviors based on race and gender, stereotyping and negative perceptions of their skills and qualifications. These racial and gender biases negatively affected their ability to obtain contracts.

It seems that no matter the experience history, I'm having to prove myself over and over again.

With over 60 years of continuous day to day operations and holding [a] Master's Degree in Administration and having worked for over 30 years with the ACOE [Army Corp of Engineers], we are often asked to perform or offer proof of competency.

My competency is always questioned until we prove otherwise and we always prove otherwise.

When told what I am capable of doing on a project, there is doubt I might [not] know what I am talking about unless we have worked with [the] company before.

[I would like to be] evaluated based on past experience and dollar amount of contracts completed.

These are questions that are difficult to ascertain. I would normally say no, but it's difficult because when contracts are continually let to other entities, it's hard not to think negatively. Especially if [there is] no real logical reason for not selecting [us].

I have been in several situations where I felt like I had no help or instruction as to what to do when I am being discriminated against.

Small or large contract, [I am] asked [if] I'm sure I can handle a 250k contract. Contract cut in half given to a white contractor.

Example: Getting ready to sign a 2.5Mil contract. Then the contractor decides I can't do the work size. Splits the contract with another company. Later says I've restored his belief in small contractors when I had to help finish work of another contract to get the job delivered to the owner.

I find that walking in the door the mistake is already made. It is assumed I just there because I'm certified not because I can perform the job.

The experiences of several Black respondents were especially negative.

Yes, here around Oklahoma, they overlook the black man.

It is assumed Black consultants are not reliable.

I feel Oklahoma is behind in [sic] times when it comes to the color of one's skin. I didn't have this problem in Tampa Fl.

Black woman owned. Fighting to sign on as contractor. It seems as though minds are already made up before they meet me.

It appears that most of the DBE work in the Tulsa area goes to white-owned companies.

Prime consultants and ODOT will not contract professional services with Black firms.

This is Oklahoma. Affirmative action was voted out. People do not believe in it, in general.

Many White women had also suffered gender bias.

Assumptions [are] made that experience or capacity is limited because of gender.

Every time, a man on the phone tries to bypass me and wants to speak to a man.

Gender, they never think I know what I am talking about. I have to prove myself on every job that has people I have not worked with before.

I have a PhD in Engineering and thus three engineering degrees and more than ten years in other industries learning a broad range of technologies and more doing complicated project management even in multiple languages. Men assume that just because my job is focused on work behind a computer, in the office, or in meetings outside of the field that I am incompetent. It is 2020. What is happening nationally in the news and politics has negatively impacted me and so many other women. We have gone backwards since Hillary Clinton ran for President. I swear it is more like 1950 or 1940, again.

Most men don't believe that women can have any knowledge of how to run a business or install, service, or repair HVAC.

Many people didn't show they recognized myself [sic] as the owner/operator. It seemed they were more likely to recognize my husband, the 49% owner, because he's male, the engineer and in the industry longer.

Another example is when the contractor's superintendent found out that a woman owned the business, they started sending 72-hour notices even though we were ahead on the project and filed on my bond for the project for a default that was not of my own. It cost me over 100,000 but we won in federal court for trust violation.

I have been considered 'bitchy' when dealing with contractors, instead of assertive.

Stereotyping – woman.

Several woman business owners related instances of overt sexism and harassment that impact their business opportunities.

Language choice and tone are still an issue for women as they hear us as "facetious", "shrill", and any other term used to describe women but not men using the same language even. I am still called honey, babe, etc. and everyone assumes my husband really runs the business or is the only one who knows anything or what is happening.

Sexual harassments happen often with our business from other contractors due to [the fact that] I am a woman owner, and I have an estimator who is a woman. I personally have been told when they find out I am the owner "what are you doing running an HVAC company." After, I tell him that I do the same thing a man does running an HVAC company and stand up to them. They make my men's life [sic] miserable on the job site. So, I have learned to keep my mouth shut and only work with contractors who respect my business and my men. Every job is a potential law suit so we keep good records and watch our "P's and Q's".

Assumptions made that [our firm's] experience or capacity is limited because of gender. [I have] endured flirting and inappropriate comments/language.

Some men (enough to impact our business) do not want to talk to me about even possibly doing business. They still try to verbally pat me on the head as if I am a little girl talking to them. Or, some are just plain rude and difficult to work with.

I get bullied and talked over due to the fact [that] I am a woman in a basically man's industry.

Some contractors do not realize my business is a womanowned business until the men out in the field blab it to the contractor superintendent. Then all hell breaks loose and then come the harassment and stereotyping from the super to the upper management of the contractor. This has happened more than once to our company. So, we try to keep our ownership on the down low.

Several woman-owned firms, however, noted that barriers were broken down over time.

Wow I have had this before but not recently. I was told by one of my equipment vendors when I first started that they would not sell to me because of my gender. They got put on our do not call list and then they came begging for our business when

we proved ourselves in the market. It took a long time for me to let go of the hard feelings and actually use their numbers.

I see the gender discrimination leaving the field now that all the old timers are retiring. I think it was just a mindset these men had. However, some companies have it throughout their organizations and that is a tough one they need to clean up. Now that more women are getting into professional trades, architecture, engineering, and contracting/subcontracting, the tensions are subsiding a little bit. However, I am not on the front line anymore. I am letting my estimator take the lead in contractor negotiations. I haven't seen much in the last 2 years but then again we have changed our business strategy to only work with contractors who respect us and value us. It keeps us small but I think I would rather have happy employees than unhappy employees. That is why we leave the "Big Boys alone." We get paid better and there is no BS to put up with. Our men and women are left alone and not harassed out in the field so they can do their jobs.

2. Access to networks

Many minority and women business owners felt excluded from networks necessary for success. Entrenched relationships, and "good ole boy" networks and lack of access to information often limited opportunities for DBEs.

Limited opportunities to develop relationships due to stereotypes and social norms.

I am not privy to their networks of country clubs, social clubs, churches etc.

We cannot even get the big companies to return our calls or emails or letters. I have even sent them certified to make a point.

If you are not a member of an association like [Associated General Contractors] you will not receive very important information regarding some private or other opportunities.

[Our company has encountered barriers due to] lack of history with many of the non-minority contractors.

No networking information has been provided or offered.

Not sure what informal networking is available.

We have not received any network[ing] information.

As a [woman-owned small business], I do not have the network in place to assist in garnering work.

These barriers extended to agency staff. Respondents reported they were unable to gain access to information and communicate with key Department decision makers.

Engineers and city officials seem to enjoy the company of those similar to themselves.

[I] do not have access to higher positioned engineers and directors at ODOT. [I am] not part of their social networks.

Prime contractors prefer to hire non-professional disciplines to meet their percentage goals. ODOT prefers to contract directly with larger firms that have relationships established.

I know that DBE programs are in place to benefit underserved businesses and in theory I believe they are beneficial. But only when the client truly understands the purpose. Two firms in business- one gets an opportunity and therefore the experience they need that enables them to leverage for more work... building of their portfolio. The purpose is to create opportunity for those that don't have access or would not be able to gain the experience otherwise. The question of equity is essentially about money- when one firm gets the opportunity, they then have the experience they can then leverage towards more work. The owners within the transportation industry have created a non-inclusive culture that favors those that do business with them because they have the experience. Leaving others out.

3. Financial barriers to opportunities

Lack of access to capital and financial support services, particularly credit and bonding, was cited as a major impediment in taking on more work and the ability of minority and woman-owned firms to successfully compete in the highway industry.

Bonding is difficult.

We have had to get SBA sponsored bonding with very high rates.

Banks are still pretty tight with financing construction companies. Must build relationships with the bank to move forward. I was approved to finance new equipment after many years of being turned down. But again, you still must show cash balances to steer the approval.

I'm not sure on this. I know it did not seem like the loan agent took me seriously when I first started trying to get a [letter of credit]/loan. I pursued it until the LOC did develop.

No lines of credit.

D. Conclusion

Consistent with other evidence reported in this Study, the interviews and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in ODOT's market area. Many minority- and woman-owned businesses reported negative perceptions and assumptions about their competency; women in particular still suffer from stereotypes, hostile environments and outright harassment. DBEs often had reduced opportunities to obtain contracts, less access to formal and informal networks, and greater difficulties in securing financial support relative to non-DBEs in their industries. Their survey comments reflected experiences of overtly expressed biased perceptions and negative stereotypes about their capabilities and professionalism. A large number indicated they were working well below their capacity.

Anecdotal evidence may "vividly complement" statistical evidence of discrimination. While not definitive proof that ODOT needs to continue to implement raceand gender-conscious remedies for these impediments, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with other evidence assembled, are relevant and probative of whether ODOT can meet the objectives of its DBE program strictly through race-neutral measures.

VII. RECOMMENDATIONS FOR THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

The quantitative and qualitative data in this study provide a thorough examination of the experiences of minority- and woman-owned firms in the Oklahoma Department of Transportation's ("ODOT" or "Department") geographic and industry markets. As required by strict constitutional scrutiny and the regulations governing the U.S. Department of Transportation's ("USDOT") Disadvantaged Business Enterprise ("DBE") program for Federal Highway Administration ("FHWA")²¹⁵ we analyzed evidence of DBE utilization by ODOT as measured by dollars spent. We next estimated the availability of DBEs in the Department's markets in the aggregate and detailed industry code. We then compared ODOT's utilization of DBEs to the availability of all ready, willing and able firms in its markets to calculate whether there are disparities between ODOT's utilization of DBEs and availability of DBEs to perform on its FHWA funded contracts.

We further solicited anecdotal or qualitative evidence of DBEs' experiences in obtaining contracts in the public and private sector construction and design industry. ODOT staff also provided extensive input about the operations of the programs and suggestions for enhancements. These results provide the Department with the evidence necessary to narrowly tailor its DBE program as required by 49 C.F.R. Part 26. Based upon these findings, we make the following recommendations.

A. Enhance Race- and Gender-Neutral Measures

The courts and the DBE program regulations require that agencies use race-neutral approaches to the maximum feasible extent to meet the triennial DBE goal. This is a critical element of narrowly tailoring the programs, so that the burden on

^{215. 49} C.F.R. Part 26.

^{216.} The term race-neutral as used here includes gender-neutrality, as defined in 49 C.F.R. §5.

non-DBEs is no more than necessary to achieve the Department's remedial purposes. Increased participation through race-neutral measures by DBEs will also reduce the need to set contract goals.

1. Conduct Targeted Outreach to Underrepresented DBEs

The results of the analysis in Chapter IV establish that Black- and Hispanic-owned DBEs are being utilized well below their availability. Only one Black firm in the Final Contract Data File received one subcontract, and this business is located in Texas. The dearth of Black and Hispanic participation may partly result from the lack of "feeder" DBE-type programs in smaller Oklahoma agencies, such as cities and counties, where firms would usually gain experience that would allow them to then move to the more complex projects undertaken by a state highway department. ODOT should therefore undertake direct, focused action to address this issue.

The Department should identify Black- and Hispanic-owned certified DBEs that are not working on ODOT projects. ODOT could use interviews and/or a survey to determine any barriers that may be discouraging them from participating and develop solutions. For example, if they are working on federally funded airport or transit projects, why are they not performing on DOT jobs? ODOT should also identify possible construction and design businesses that are not DBE certified and encourage them to become certified. It should set targets for increases in the number of DBE certified Black and Hispanic firms; increases in the dollars awarded to these firms; the number of prime and subcontracts awarded to these firms; and expansion in the variety of subindustries in which they receive awards and dollars.

An additional possible support to increase inclusion would be to encourage Black and Hispanic owners to network with groups such as the Associated General Contractors and the American Council of Engineering Companies. Both groups have active chapters in Oklahoma and can serve as resources for these firms. ²¹⁷

2. Develop a "Quick Pay" Small Business Element

Under ODOT's current DBE Program Plan, the only small business element listed to comply with 49 C.F.R. §26.39 is the ability to waive prequalification requirements for small construction contracts (consulting contracts do not require prequalification to submit a proposal). The regulation suggests other possibilities that ODOT should consider.

^{217.} https://infrastructure.agctx.org/item/403-agc-of-texas-civil-rights-and-the-dbe-program; https://programs.acec.org/inclusion-and-diversity/.

One small business element we suggest ODOT consider is a "quick pay" program for small contractors, where small contractors could invoice every two weeks. Many DBEs reported that access to working capital is a hurdle to working on Department jobs, so smoothing out cash flow can help to support their participation.

3. Expand Technical Assistance and Supportive Services Offerings

Many DBEs and non-DBEs requested additional training for DBEs on the intricacies of doing business with ODOT. While the Department provides extensive training options, the DBE Reimbursement/Assistance Program was specifically mentioned by business owners as a useful support to increase their business development needs. The current limit of \$1000 per firm, with a limit of 5 firms (for a total ODOT expenditure of \$5000 per fiscal year).

Further, many large prime contractors and DBEs requested additional training for DBEs on estimating jobs, safety compliance and other skills needed to be successful on ODOT jobs. Perhaps classes could be taught in conjunction with local organizations such as community colleges.

4. Review DBE Program Policies and Procedures

The DBE program operates well, as a general matter. We suggest some revisions, however, based on the feedback of business owners and staff and national best practices.

Greater clarity about the process to submit good faith efforts ("GFEs") documentation was requested by some large bidders. Developing checklists and training materials would help to ensure that the steps to document GFEs are clear and the process for evaluating submissions is transparent.

Another common complaint was the lack of consistency in program interpretation and administration between the Civil Rights Division ("CRD") and the user departments. Internal learning tools could be developed so all ODOT staff have been trained on the same topics and have access to the same information.

Some ODOT staff and bidders reported that although the Department's FHWA-approved DBE Program Plan treats the submission of DBE compliance documents as a condition of responsiveness, bidders or proposers are sometimes permitted to negotiate DBE participation after submission of the bid or proposal. The rules should be clear to every party and then consistently enforced.

5. Enhance Contract Data Collection

A critical element of this study and a major challenge was data collection of full and complete prime contract and associated subcontractor records. ODOT is a large and complex organization and as is very common, it did not have all the information needed for the analysis. ODOT has recently transitioned into AAS-HTOWare Project's Civil Rights and Labor modules since we began our research for this report. Based on our experiences collecting contract records for this report, we suggest the new system include the following:

- 1. Collect full information for all firms, both prime contractors and subcontractors. This should include email addresses, North American Industry Classification System ("NAICS") codes, race and gender ownership, and DBE certification status.
- 2. Collect all prime and subcontracting activities in one system. Currently, construction records are in one system and consultant records are in a different system. Not only will one uniform repository facilitate any future disparity study, but also it will reduce the burden on ODOT staff when compiling reports for USDOT, senior Department leadership, legislators and the public.
- 3. Adopt a uniform system to code contracts by funding source. To develop the Contract Data Files, Department staff spend significant time collating and standardizing funding streams for FHWA contracts.
- 4. Track all subcontracting activities, including the participation of non-certified firms during contract performance and at contract closeout. The lack of records pertaining to subcontractors required us to contact the prime vendors in order to obtain the needed data for the study. Subcontractor information is also necessary for the ongoing contractual requirement that subcontractors be paid promptly.
- 5. Conduct ongoing and follow-up training on how to use the AASHTOWare system for ODOT personnel, prime contractors and subcontractors.

B. Continue to Implement a Narrowly Tailored DBE Program

1. Use the Study to Set the Triennial DBE Goal

49 C.F.R. Part 26 requires ODOT to engage in a two-step process to set a triennial goal for DBE participation.

Your overall goal must be based on demonstrable evidence of the availability of ready, willing and able DBEs relative to all businesses ready, willing and able to participate on your DOT-assisted contracts (hereafter, the "relative availability of DBEs"). The goal must reflect your determination of the level of DBE participation you would expect absent the effects of discrimination. ²¹⁸

One approved method to set the triennial goal is to use data from a disparity study. We therefore recommend that the Department use the DBE aggregated weighted availability findings in Chapter IV to determine the Step One base figure for the relative availability of DBEs required by §26.45(c). These results are the estimates of total DBE availability that reflect the importance of each subindustry to ODOT's overall FHWA funded contracting activity.

Section §26.45(d) requires the Department to perform a Step Two analysis. ²²⁰ ODOT must consider whether to adjust the Step One figure to reflect the effects of the DBE program and the level of DBE availability that would be expected in the absence of discrimination. The Department can use the statistical disparities in Chapter V of the rates at which DBEs form businesses as a possible marker of the availability of minority- and woman-owned businesses that would be expected "but for" discrimination. This is the type of "demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought." ²²¹ However, we note that while the DBE regulations have withstood repeated legal attacks, there is no direct case law upholding this type of "but for" analysis. We therefore advise ODOT to proceed with caution in using the economy-wide data for an adjustment.

2. Use the Study to Set DBE Contract Goals

The highly detailed unweighted availability estimates in Chapter IV can serve as the starting point for setting narrowly tailored contract goals that reflect the percentage of available DBEs as a percentage of the total pool of available firms. This ensures that goals are set in line with the study's availability results, which serve as the basis for race-conscious measures. The Department should weigh the estimated scopes of the contract by the availability of DBEs in those scopes, and then adjust the result based on geography and current market conditions (for example, the volume of work currently underway in the market, project location, the entrance of newly certified firms, specialized nature of the project, etc.), and progress towards the triennial DBE goal. The DBE

^{218. 49} C.F.R. §26.45(b).

^{219.} Table 4-9, Aggregated Weighted Availability.

^{220. &}quot;Once you have calculated a base figure, you must examine all of the evidence available in your jurisdiction to determine what adjustment, if any, is needed to the base figure to arrive at your overall goal." 49 C.F.R. §26.45(d).

^{221. 49} CFR §26.45(d)(3); see also §23.51.

availability could be augmented with updated DBE Directory information. These detailed, 6-digit NAICS codes can be the availability figures entered into the goal setting formula, that then adjusts those figures to the dollar weights of the specific contract scopes. While ODOT has recently transitioned to a modified contract goal setting method, we recommend that the study datawhich cast the wide net affirmed by the courts and promulgated by USDOT—serve as the starting point for goal setting.

We further recommend that contract goals be reviewed when there is a change order greater than some minimum amount (e.g., ten percent). This could result in an increase, a decrease or no change in the contract goal, but it will ensure the constitutionally required flexibility that is the hallmark of a narrowly tailored goal setting and implementation methodology.

3. Adopt a Pilot Mentor-Protégé Program

ODOT should consider adopting a Mentor-Protégé Program for DBEs. The DBE program regulations at 49 C.F.R. §26.35 and the Guidelines of Appendix D to Part 26 should provide the framework for the program. In addition to the standards provided in Part 26, the General Counsel's Office at the USDOT has provided some additional guidance, ²²² and the USDOT's Office of Small Disadvantaged Business Utilization has adopted a pilot program²²³ and has drafted sample documents. ²²⁴

There was a general consensus among both DBEs and non-DBEs that supporting the growth and development of DBEs is an objective from which elements of the contracting community would benefit. 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 protégé, including the firm's number of years of experience as a construction contractor or consultant;

^{222.} http://www.dot.gov/osdbu/disadvantaged-business-enterprise/official-questions-and-answers.

^{223.} http://www.dot.gov/osdbu/procurement-assistance/mentor-protege-pilot-program.

^{224.} http://cms.dot.gov/small-business/procurement-assitance/mentor-protege program.

- the agreement to devote a specified number of hours per month to working with the mentor; and the qualifications of the DBE owner(s).
- A Department-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 ODOT projects. 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 Department.
- Any financial assistance by the mentor to the protégé must be subject to prior written approval by ODOT 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 Department if the protégé no longer meets the eligibility standards for DBE 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 resorting 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 Department of 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.

We recognize that this level of direction and oversight will require additional resources from CRD and relevant user departments. Close monitoring of the program will be critical, but other entities have reported success with such an approach.

4. Consider a Bonding, Financing and Technical Assistance Program for DBEs

Access to bonding and working capital are the two of largest barriers to the development and success of DBEs and small firms because traditional underwriting standards have often excluded them. The size and complexity of many ODOT projects increases this barrier. One approach that has proven to be effective for some agencies is to develop an agency-sponsored bonding, financing and technical assistance program for certified firms. This goes beyond the Department's current provision of information about outside bonding 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 company to provide a bond and a lender to provide working capital to firms that have successfully completed the program. Other agencies have reported significant increases in DBEs' bonding capacities and ability to take on larger projects using this type of program. ²²⁵

5. Develop Performance Measures for Program Success

ODOT should develop quantitative performance measures for the overall success of the DBE program. In addition to meeting the triennial goal on an annual basis, possible benchmarks might be:

- Increased participation by Black and Hispanic firms as prime contractors and subcontractors.
- Increased bidding by certified firms.
- Increased prime contract awards to certified firms.
- Increased "capacity" of certified firms as measured by bonding limits, size of jobs, profitability, etc.

^{225.} The Illinois State Toll Highway Authority has reported good results from its Partnering for Growth Program. https://www.illinoistollway.com/doing-business/diversity-development/programs/partnering-for-growth.

APPENDIX A:

FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the report, multiple regression statistical techniques seek to explore the relationship between a set of independent variables and a dependent variable. The following equation is a way to visualize this relationship:

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

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta 1 * D) + (\beta 2 * I) + (\beta 3 * O) + \mu$$

where C is the constant term; $\beta 1$, $\beta 2$ and $\beta 3$ are coefficients, and 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 Oklahoma Department of Transportation, the analysis was limited to data from the state of Oklahoma. The coefficient for the new variable showed the impact of being a member of that race or gender in the metropolitan area.

Oklahoma Department of Transportation Disparity Study 2021			

APPENDIX B: FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

Probit regression is a special type of regression analysis. Probit regression analysis is used to explore the determinants of business formation because the question of business formation is a "yes' or "no" question: the individual does or does not form a business. Hence, the dependent variable (business formation) is a dichotomous one with a value of "one" or "zero". This differs from the question of the impact of race and gender of wages, for instance, because wage is a continuous variable and can have any non- negative value. Since business formation is a "yes/no" issue, the fundamental issue is: how do the dependent variables (race, gender, etc.) impact the probability that a particular group forms a business? Does the race or gender of a person raise or lower the probability he or she will form a business and by what degree does this probability change? The standard regression model does not examine probabilities; it examines if the level of a variable (e.g., the wage) rises or fall because of race or gender and the magnitude of this change.

The basic probit regression model looks identical to the basic standard regression model:

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

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry and occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta 1 * D) + (\beta 2 * I) + (\beta 3 * O) + \mu$$

where C is the constant term; $\beta 1$, $\beta 2$, and $\beta 3$ are coefficients, and μ is the random error term.

As discussed above, the dependent variable in the standard regression model is continuous and can take on many values while in the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. The two models also differ in the interpretation of the independent variables' coefficients, in the standard model, the interpretation is fairly straight-

forward: the unit change in the independent variable impacts the dependent variable by the amount of the coefficient. ²²⁶ However, in the probit model, because the model is examining changes in probabilities, the initial coefficients cannot be interpreted this way. One additional computation step of the initial coefficient must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.*, business formation) occurring. For instance, with the question of the impact of gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the additional computation chance of the coefficient of WOMAN yielded a value of -0.12, we would interpret this to mean that women have a 12 percent lower probability of forming a business compared to men.

 $^{226. \}quad \text{The exact interpretation depends upon the functional form of the model}.$

APPENDIX C: SIGNIFICANCE LEVELS

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

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

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

For example, an important question facing the Oklahoma Department of Transportation as it explores whether each racial and ethnic group and White women continue to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (e.g., wages) and the independent variable (e.g., non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say, for example, that this analysis determines that non-Whites receive wages that are 35 percent less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (e.g., non-Whites) and the dependent variable (e.g., wages) – the first sub-question. It is still important to determine how accurate the estimation is. In other words, what is the probability that the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (e.g., non-Whites earn identical wages compared to White men

or non-Whites earn 0 percent less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find the probability that the observed relationship (*e.g.*, -35 percent) is between 0 and minus that confidence interval.²²⁷ The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. When a number is statistically significant at the 0.001 level, this indicates that we can be 99.9 percent certain that the number in question (in this example, -35 percent) lies outside of the confidence interval. When a number is statistically significant at the 0.01 level, this indicates that we can be 99.0 percent certain that the number in question lies outside of the confidence interval. When a number is statistically significant at the 0.05 level, this indicates that we can be 95.0 percent certain that the number in question lies outside of the confidence interval.

^{227.} Because 0 can only be greater than -35 percent, we only speak of "minus the confidence level". This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say "plus or minus the confidence level" and this would be a two-tailed test.

APPENDIX D: UNWEIGHTED AND WEIGHTED AVAILABILITY

Central to the analysis, under strict constitutional scrutiny, of an agency's contracting activity is understanding what firms could have received contracts. Availability has two components: unweighted availability and weighted availability. Below we define these two terms; why we make the distinction; and how to convert unweighted availability into weighted availability.

Defining Unweighted and Weighted Availability

Unweighted availability measures a group's share of all firms that could receive a contract or subcontract. If 100 firms could receive a contract and 15 of these firms are minority-owned, then MBE unweighted availability is 15 percent (15/100). Weighted availability converts the unweighted availability through the use of a weighting factor: the share of total agency spending in a particular NAICS code. If total agency spending is \$1,000,000 and NAICS Code AAAAAA captures \$100,000 of the total spending, then the weighting factor for NAICS code AAAAAA is 10 percent (\$100,000/\$1,000,000).

Why Weight the Unweighted Availability

It is important to understand *why* weighted availability should be calculated. A disparity study examines the overall contracting activity of an agency by looking at the firms that *received* contracts and the firms that *could have received* contracts. A proper analysis does not allow activity in a NAICS code that is not important an agency's overall spending behavior to have a disproportionate impact on the analysis. In other words, the availability of a certain group in a specific NAICS code in which the agency spends few of its dollars should have less importance to the analysis than the availability of a certain group in another NAICS code where the agency spends a large share of its dollars.

To account for these differences, the availability in each NAICS code is weighted by the agency's spending in the code. The calculation of the weighted availability compares the firms that received contracts (utilization) and the firms that could receive contracts (availability). Utilization is a group's share of total spending by an agency; this metric is measure in dollars, *i.e.*,

MBEs received 8 percent of all dollars spent by the agency. Since utilization is measured in dollars, availability must be measures in dollars to permit an "apples-to-apples" comparison.

How to Calculate the Weighted Availability

Three steps are involved in converting unweighted availability into weighted availability:

- Determine the unweighted availability
- Determine the weights for each NAICS code
- Apply the weights to the unweighted availability to calculate weighted availability

The following is a hypothetical calculation.

Table D-1 contains data on unweighted availability measured by the number of firms:

Table D-1

NAICS	Black	Hispanic	Asian	Native American	White Women	Non- M/W/DBE	Total
AAAAA	10	20	20	5	15	400	470
BBBBBB	20	15	15	4	16	410	480
CCCCCC	10	10	18	3	17	420	478
TOTAL	40	45	53	12	48	1230	1428

Unweighted availability measured as the share of firms requires us to divide the number of firms in each group by the total number of firms (the last column in Table D-1). For example, the Black share of total firms in NAICS code AAAAAA is 2.1 percent (10/470). Table D-2 presents the unweighted availability measure as a group's share of all firms.

Table D-2

NAICS	Black	Hispanic	Asian	Native American	White Women	Non- M/W/DBE	Total
AAAAA	2.1%	4.3%	4.3%	1.1%	3.2%	85.1%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	Non- M/W/DBE	Total
BBBBBB	4.2%	3.1%	3.1%	0.8%	3.3%	85.4%	100.0%
CCCCCC	2.1%	2.1%	3.8%	0.6%	3.6%	87.9%	100.0%
TOTAL	2.8%	3.2%	3.7%	0.8%	3.4%	86.1%	100.0%

Table D-3 presents data on the agency's spending in each NAICS code:

Table D-3

NAICS	Total Dollars	Share
AAAAA	\$1,000.00	22.2%
BBBBBB	\$1,500.00	33.3%
CCCCCC	\$2,000.00	44.4%
TOTAL	\$4,500.00	100.0%

Each NAICS code's share of total agency spending (the last column in Table D-3) is the weight from each NAICS code that will be used in calculating the weighted availability. To calculate the overall weighted availability for each group, we first derive the every NAICS code component of a group's overall weighted availability. This is done by multiplying the NAICS code weight by the particular group's unweighted availability in that NAICS code. For instance, to determine NAICS code AAAAAA's component of the overall Black weighted availability, we would multiply 22.2 percent (the NAICS code weight) by 2.1 percent (the Black unweighted availability in NAICS code AAAAAA). The resulting number is 0.005 and this number is found in Table D-4 under the cell which presents NAICS code AAAAAA's share of the Black weighted availability. The procedure is repeated for each group in each NAICS code. The calculation is completed by adding up each NAICS component for a particular group to calculate that group's overall weighted availability. Table D-4 presents this information:

Table D-4

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/ DBE
AAAAAA	0.005	0.009	0.009	0.002	0.007	0.189
BBBBBB	0.014	0.010	0.010	0.003	0.011	0.285
CCCCCC	0.009	0.009	0.017	0.003	0.016	0.391
TOTAL	0.028	0.029	0.037	0.008	0.034	0.864

To determine the overall *weighted availability*, the last row of Table D-4 is converted into a percentage (*e.g.*, for the Black weighted availability: 0.028 * 100 = 2.8 percent). Table D-5 presents these results.

Table D-5

Black	Hispanic	Asian	Native American	White Women	Non-MWBE	Total
2.8%	2.9%	3.7%	0.8%	3.4%	86.4%	100.0%

APPENDIX E: ODOT OUTREACH EVENTS FY2015-FY2019

Year	Event	Event Date	Attendance
2019	Forklift Certification	February 28, 2019	3
	Forklift Certification	March 1, 2019	3
	Governmental Contracts	March 6, 2019	11
	DBE Onboarding	March 21, 2019	5
	Bidding/After Bid	April 3, 2019	3
	Excel Like a Pro	April 23, 2019	4
	Create an Epic Budget	May 15, 2019	2
	Flagger	May 16, 2019	15
	Forklift Certification	May 20, 2019	4
	Publish Like a Pro	June 12, 2019	4
	DBE Onboarding	June 13, 2019	5
	Forklift Certification	June 17, 2019	4
	Gilcrease Project - Outreach	August 19, 2019	28
	OSHA 10	August 29, 2019	5
	DBE Onboarding	October 10, 2019	5
2018	The Anastasia Pittman Show - Radio - Jenny Allen and LaTashia Thompson spoke about the DBE Program and answered questions	February 1, 2018	NA
	Plan Reading	February 28, 2018	7
	Coles Garden Chamber Meeting	March 6, 2018	15
	DBE On Boarding	March 27, 2018	4
	DBE Outreach with Black Wall St.	May 2, 2018	9
	Lettings and Contractors from Start to Finish	May 22, 2018	8
	DBE On Boarding	June 7, 2018	3

Year	Event	Event Date	Attendance
	Town of Clearview Outreach	June 16, 2018	5
	Coles Garden Outreach	August 30, 2018	21
	1273 & DOL Training	September 6, 2018	16
	Gilcrease Project Outreach	September 12, 2018	25
	Consulting Contracts and Updates	September 13, 2018	29
	DBE On Boarding	September 27, 2018	4
	Certified Payrolls	October 15, 2018	7
	Durant-Choctaw Nation Training	October 16, 2018	3
	DBE On Boarding	December 5, 2018	2
	OSHA 10 - Safety Training for Construction	July 1, 2018 - July 19, 2018	7
2017	Excel Training/ Email Marketing Tools	May 5, 2017	6
	DBE Social - Boathouse	June 2, 2017	13
	DBE to DBE Let's talk	June 9, 2017	11
	Town of Clearview - Juneteenth	June 17, 2017	6
	Transit and Airport Event 21C event	July 17, 2017	15
	DBE Outreach	August 10, 2017	15
	Quickbooks (OKC)	August 25, 2017	6
	Social Media and Branding	October 17, 2017	7
	ODOT Civil Rights Division Forum	November 9, 2017	12
	Civil Rights DBE Forum (Tulsa)	November 9, 2017	9
	Contracting Business Fair- Muskogee round table event	December 5, 2017	NA
	DBE On Boarding	December 12, 2017	6
	DBE Outreach Lend-A-Hand	December 17, 2017	7
2016	Bid Process	January 5, 2016	5
	Business Profile	January 19, 2016	7
	Profile Building Class	January 29, 2016	3
	OSHA 30	April 11, 2016	9
	DBE Mini Conference - Tulsa, Ok	June 11, 2016	95
	DBE Transit and Airport Outreach	August 25, 2016	15
	DBE Match Making event	August 26, 2016	2

Year	Event	Event Date	Attendance
	DBE On Boarding	September 13, 2016	6
	Professionalism and Business Tax Prep	September 29, 2016	5
	Plan Reading Course	October 21, 2016	4
	Quick Books (Tulsa)	November 26, 2016	6
2015	DBE Matchmaking	January 27, 2015	7
	Microsoft Access Training	January 30, 2015	5
	DBE On Boarding	February 3, 2015	2
	Financial Management Pro Forma	March 11, 2015	4
	DBE Matchmaking	March 25, 2015	9
	DBE Matchmaking	March 25, 2015	10
	Breakfast with the Primes	April 8, 2015	1
	DBE Fraud & EEO Training	April 29, 2015	14
	Microsoft Excel	May 22, 2015	5
	Microsoft Access Advanced Training	July 15, 2015	3
	First Aid/CPR/AED	August 5, 2015	19
	First Aid/CPR/AED	August 6, 2015	13
	First Aid/CPR/AED	September 23, 2015	13
	OSHA 10 Hour	October 21, 2015	17
	OSHA 10 Hour	October 22, 2015	5
	Federal Contracting	December 8, 2015	10

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