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MISSOURI DEPARTMENT OF TRANSPORTATION 2019 DBE AVAILABILITY STUDY Final Report



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**Final Report
June 2019**

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EXECUTIVE SUMMARY.

2019 MoDOT DBE Availability Study

Keen Independent Research LLC

The Missouri Department of Transportation operates the Federal Disadvantaged Business Enterprise (DBE) Program to assist DBEs on contracts that use U.S. Department of Transportation (USDOT) funds. MoDOT must set overall goals for participation of DBEs in those contracts, including a three-year goal for contracts using Federal Highway Administration (FHWA) funds.

An overall DBE goal expresses the percentage of contract dollars MoDOT might expect to go to DBEs if there were a level playing field for those companies when competing for that work.

- MoDOT had an overall DBE goal of 15.38 percent for FHWA-funded contracts for federal fiscal years 2015, 2016 and 2017.
- In 2018, MoDOT proposed a new interim overall DBE goal of 16.05 percent for FFY 2018 through FFY 2020. FHWA approved this goal, but indicated that MoDOT would have an opportunity to adjust the goal mid-cycle based on the results of the current Availability Study.

Keen Independent Research (Keen Independent) performed the 2019 DBE Availability Study for MoDOT. Keen Independent initiated the study in December 2018 and completed the analyses in May 2019, working closely with MoDOT staff. MoDOT also formed an External Stakeholder Group that participated in meetings with Keen Independent at key junctures of the project. Five report chapters and additional appendices explain the data collection and analyses performed in this study.

Base Figure Analysis for MoDOT's Overall DBE Goal

Regulations in 49 CFR Part 26 and other USDOT guidance direct how an agency sets its overall DBE goal.¹ The process includes two steps: (1) developing a “base figure,” and (2) considering “step 2” adjustments.

The availability analysis calculates the percentage of dollars in FHWA-funded contracts that might be expected to go to DBEs if there were a level playing field for firms to obtain these prime contracts and subcontracts. To project future DBE participation, Keen Independent examined DBE availability for FHWA-funded prime contracts and subcontracts in recent years.

Keen Independent determined a base figure for MoDOT's overall DBE goal of 12.45 percent based on the analyses described below. This does not represent a final goal for MoDOT consideration, as MoDOT will still need to consider potential step 2 adjustments.

¹ Most firms certified as DBEs are minority- or women-owned firms. White male-owned firms and other ethnicities not listed above can also meet the federal certification requirements and be certified as DBEs if they demonstrate they are both socially and economically disadvantaged, as described in 49 CFR Part 26.67 (d).

Data collection and analysis. To conduct the 2019 DBE Availability Study, Keen Independent:

- Collected data on MoDOT’s past FHWA-funded contracts, including subcontracts. Keen Independent examined contracts awarded from July 2013 through June 2018.
- Determined that Missouri and out-of-state portions of the Kansas City and St. Louis metropolitan areas form the geographic market area for MoDOT highway contracts. Firms with locations in this area received more than 90 percent of contract dollars.
- Identified 29 specific types of work performed on MoDOT highway construction and engineering contracts that accounted for more than 90 percent of MoDOT’s prime contract and subcontract dollars.
- Surveyed thousands of companies in Missouri to identify businesses available for different types, sizes and locations of MoDOT prime contracts and subcontracts. About 28 percent of available businesses were minority- or women-owned.
- Determined which minority- and women-owned firms are potential DBEs. Combined, certified DBEs and firms that appear that they could be DBE-certified accounted for 26 percent of firms in the availability database. (MBE/WBEs that have graduated from the DBE Program, had certification applications denied, or are too large to be certified were not counted as potential DBEs.)
- Using survey data about available firms, calculated the total number of firms and the number of DBEs available for each prime contract and subcontract from July 2013 through June 2018. (Keen Independent performed a contract-by-contract availability analysis based on the type, size and location of each prime contract and subcontract.)
- Dollar-weighted the results of the contract-by-contract availability analysis to determine overall DBE availability for FHWA-funded contracts.

Calculation of the dollars of DBE participation expected for July 2013 through June 2018 contracts assuming a level playing field. For each prime contract and subcontract, Keen Independent calculated:

- (a) Number of DBEs available for that type, size and location of work;
- (b) Total number of firms available for that work; and
- (c) Percentage of DBE availability for that prime contract or subcontract, calculated by dividing (a) by (b).

From this contract-by-contract analysis, the study team had availability estimates for more than 15,000 prime contracts and subcontracts for July 2013 through June 2018. Keen Independent then dollar-weighted the percentage of DBE availability results for each prime contract and subcontract to develop the overall availability figure.

This analysis produced estimates of the percentage of MoDOT contract dollars that might be expected to go to DBEs had there been a level playing field in the Missouri contracting marketplace.

Availability results. Establishing a “base figure” is the first step in calculating an overall goal for DBE participation.

- Keen Independent’s analysis indicates that the dollar-weighted availability of minority- and women-owned firms for MoDOT’s FHWA-funded transportation contracts is 13.40 percent.
- Keen Independent adjusted the MBE/WBE availability figure to account for firms that had graduated or been denied DBE certification and firms exceeding average annual revenue limits. Adjusting for these two categories of MBE/WBEs reduced the base figure for FHWA-funded contracts by 0.96 percentage points.
- One white male-owned DBE was then added to the base figure, increasing the figure by 0.01 percentage point.
- The resulting base figure for MoDOT’s overall DBE goal is 12.45 percent.

Step 2 adjustments. MoDOT must consider potential step 2 adjustments to its base figures when it determines its overall annual DBE goal for FHWA-funded contracts. Allowable types of adjustments for consideration are described in the regulations for the DBE Program. If MoDOT makes such an adjustment, it can be upward or downward.

Additional Information in the Availability Study

In addition to the availability analysis, MoDOT approved two additional tasks to be completed as part of this study:

- Analysis of DBE participation in MoDOT highway contracts; and
- Collection and analysis of qualitative information from DBEs and non-DBEs about marketplace experiences.

DBE participation. Keen Independent examined the participation of DBE firms on MoDOT transportation contracts from July 2013 through June 2018. DBEs received \$564 million, or 13.40 percent of MoDOT FHWA-funded contract dollars during study period. For state-funded contracts, DBEs received 6.8 percent of the contract dollars.

Qualitative information. Keen Independent examined whether there was a level playing field for minority- and women-owned firms in the Missouri highway construction and engineering marketplace based on surveys, in-depth interviews, focus groups and review of other studies. Results indicate that minority- and women-owned businesses are more likely than other companies to face barriers regarding access to capital, learning about bid opportunities, receipt of payment and other aspects of business operations.

Business owners also report that DBE contract goals on MoDOT’s FHWA-funded contracts help level the playing field for minority- and women-owned businesses.

CHAPTER 1.

Introduction

The federal government requires state and local governments to operate the Federal Disadvantaged Business Enterprise (DBE) Program if they receive U.S. Department of Transportation (USDOT) funds for transportation projects. The Missouri Department of Transportation (MoDOT) has operated some version of the Federal DBE Program for many years.

MoDOT must set an overall goal for participation of DBEs for Federal Highway Administration (FHWA) every three years. At the time of this report, MoDOT's overall DBE goal for FHWA-funded contracts was 16.05 percent.¹ This goal suggests that DBEs would receive about 16 percent of MoDOT's FHWA-funded contract dollars for the three years covered by that goal. Federal regulations govern how state DOTs and other agencies set their overall DBE goals.

To help it set its overall DBE goal for future years, MoDOT retained Keen Independent to analyze the availability of current and potential DBEs to perform work related to MoDOT's FHWA-funded contracts. This study compiled and analyzed:

- Information about firms available to perform transportation-related work that Keen Independent collected in 2019;
- Prime contracts and subcontracts for recent years of MoDOT FHWA-funded contracts. Keen Independent studied contracts awarded from July 2013 through June 2018 as they are representative of the FHWA-funded contracts MoDOT might award in the future;
- DBE participation one might expect on FHWA-funded contracts given the type, size and location of those prime contracts and subcontracts and the current availability of DBEs and non-DBEs to perform that work; and
- Data concerning actual DBE participation on MoDOT contracts and information gathered from in-depth interviews, focus groups and other sources about conditions in the Missouri highway construction and engineering contracting marketplace.

MoDOT can use information from the 2019 DBE Availability Study to set a future overall DBE goal for FHWA-funded contracts.

¹ MoDOT also projected that 1.58 percentage points of its overall DBE goal would be achieved through neutral means. FHWA approved MoDOT's goal setting methodology and race-neutral/race-conscious split for FFY 2018–FFY 2020 on January 22, 2019.

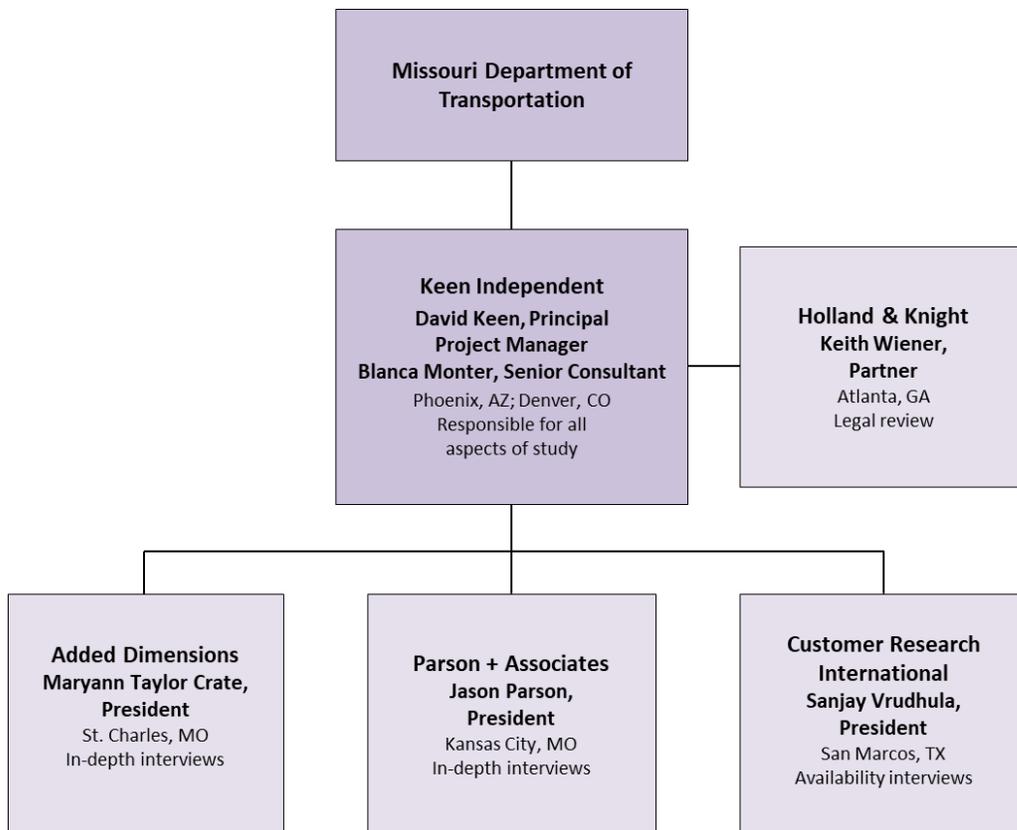
The balance of Chapter 1:

- A. Introduces the study team;
- B. Provides background on the Federal DBE Program;
- C. Outlines the analyses and describes where results appear in the report; and
- D. Reviews the efforts to involve business owners, trade association representatives and others in the study process.

A. Study Team

David Keen, Principal of Keen Independent, directed this study. He has conducted similar studies for more than 100 public agencies throughout the country, including 14 state transportation departments. Keen Independent was assisted by staff of Parson + Associates in Kansas City and Added Dimensions in St. Charles who conducted in-depth interviews with business owners, trade associations and other groups. Customer Research International performed availability surveys and Holland & Knight provided guidance concerning legal issues.

Figure 1-1.
Study team for the 2019 MoDOT DBE Availability Study



Keen Independent worked with MoDOT staff throughout the study. MoDOT also formed an External Stakeholder Group,² which was involved in three meetings with Keen Independent at key points of the project.

B. Federal DBE Program

MoDOT has operated some version of a Federal DBE Program since the 1980s. After enactment of the Transportation Equity Act for the 21st Century (TEA-21) in 1998, USDOT established a new Federal DBE Program to be operated by state and local agencies receiving USDOT funds.

Federal regulations in 49 CFR Part 26 direct how state and local governments must operate the Federal DBE Program.³ If necessary, under the federal regulations, the Program allows state and local agencies to use DBE contract goals, which MoDOT currently sets on FHWA-funded contracts. When awarding those contracts, MoDOT considers whether or not a bidder or proposer meets the DBE goal set for the contract or shows good faith efforts to do so.

The 2019 DBE Availability Study is limited to MoDOT's overall DBE goal for FHWA-funded contracts. It does not consider contracts using other USDOT funds.

The Federal DBE Program also applies to cities, counties and other jurisdictions that receive USDOT funds as a subrecipient of MoDOT. Local governments such as the cities of Kansas City, Missouri and St. Louis also directly receive USDOT funds for functions such as airport or transit operations. Those local governments are responsible for determining overall DBE goals and how they will implement the Federal DBE Program for funds they directly receive from USDOT.

Key Program elements. Components of the Federal DBE Program include the following:

Setting an overall goal for DBE participation. MoDOT must develop an overall annual goal for DBE participation in its USDOT-funded contracts every three years. The Federal DBE Program sets forth the steps an agency must follow in establishing its goal, including development of a “base figure” and consideration of possible “step 2” adjustments to the goal.⁴

MoDOT's overall goal for DBE participation is aspirational. Failure to meet an annual DBE goal does not automatically cause any USDOT penalties unless an agency fails to administer the DBE Program in good faith. However, if MoDOT does not meet its overall DBE goal, federal regulations require it to analyze the reasons for any shortfall and develop a corrective action plan to meet the goal in the next fiscal year.⁵

Establishing the portion of the overall DBE goal to be met through neutral means. Regulations governing operation of the Federal DBE Program allow for state and local governments to operate the program without the use or with limited use of race- or gender-based measures such as DBE contract goals. According to program regulations 49 CFR Section 26.51, a state or local agency must meet the maximum feasible portion of its overall goal for DBE participation through “race-neutral

² Also known as the DBE Focus Group.

³ 49 CFR Part 26 http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49cfr26_main_02.tpl

⁴ 49 CFR Section 26.45.

⁵ 49 CFR Section 26.47.

means.” Race-neutral program measures include removing barriers to participation of firms in general or promoting use of small or emerging businesses (see 49 CFR Section 26.51(b) for more examples of race-neutral program measures). If an agency can meet its goal solely through race-neutral means, it must not use race-conscious program elements. For example, a state DOT operating a 100 percent race- and gender-neutral program would not apply DBE contract goals.

The Federal DBE Program requires that an agency project the portion of its overall DBE goal that it will meet through neutral measures and the portion, if any, to be met through race-conscious measures such as DBE contract goals. USDOT has outlined a number of factors for an agency to consider when making that determination.⁶

Many state DOTs project that they will meet their overall DBE goal through a combination of race-neutral and race-conscious measures. Some state DOTs have operated the Federal DBE Program solely through neutral measures and without use of DBE contract goals. These agencies project that 100 percent of their overall DBE goal will be met through neutral means.

The 2019 DBE Availability Study provides MoDOT information about past DBE participation and current marketplace conditions that it might consider when making these projections for its FHWA-funded contracts.

Racial/ethnic/gender groups eligible for race- or gender-conscious elements of the Federal DBE Program. To be certified as a DBE, the firm’s owner must be both socially and economically disadvantaged.

Under the Federal DBE Program, the following racial, ethnic and gender groups can be presumed to be socially disadvantaged:

- Black Americans (or “African Americans” in this study);
- Hispanic Americans;
- Native Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans; and
- Women of any race or ethnicity.

To be economically disadvantaged, a company must be below an overall revenue limit and an industry-specific limit, and its firm owner(s) must be below personal net worth limits.⁷ White male-owned firms and other ethnicities not listed above can also meet the federal certification requirements and be certified as DBEs if they demonstrate that they are both socially and economically disadvantaged, as described in 49 CFR Part 26.67(d).

⁶ See Chapter 4 of this report for an in-depth discussion of these factors.

⁷ 49 CFR 26 Subpart D provides certification requirements. There is a gross receipts limit (currently not more than a \$23.98 million annual three-year average revenue, and lower limits for certain lines of business) and a personal net worth limit (currently \$1.32 million excluding equity in the business and primary personal residence) that firms and firm owners must fall below to be able to be certified as a DBE. Under 49 CFR Section 26.67(b), a certifying agency may consider other factors to determine if an individual is able to accumulate substantial wealth, in which certification is denied (annual gross income of the owner and whether the fair market value of the owner’s assets exceed \$6 million are two such factors that may be considered).

C. Analyses Performed in the 2019 DBE Availability Study and Location of Results

Figure 1-2 outlines the chapters in the 2019 DBE Availability Study report.

Figure 1-2.

Chapters in the 2019 DBE Availability Study report

Chapter	Description of 2019 DBE Availability Study report chapters
ES. Executive Summary	Brief summary of study results
1. Introduction	Study purpose, study team, organization of report, and summary of public participation
2. MoDOT Transportation Contracts	Contract data collection, definition of the geographic area and analysis of subindustries involved in MoDOT transportation contracts
3. Availability Analysis	Methodology and results regarding availability of minority- and women-owned firms and other businesses for MoDOT contracts
4. DBE Participation in MoDOT Contracts	Utilization of DBEs in MoDOT contracts, by group and by region
5. Marketplace Conditions	Conditions for minority- and women-owned firms and other businesses in the Missouri highway construction and engineering industries

Collection of prime contract and subcontract information for past FHWA- and state-funded contracts. The study team collected information about FHWA-funded contracts awarded by MoDOT or by local public agencies from July 2013 through June 2018. Chapter 2 outlines the data collection process and describes these contracts. Appendix B provides further documentation.

Availability analysis, including base figure for overall DBE goal. Chapter 3 presents the “base figure” for DBE availability for MoDOT to consider when establishing an overall DBE goal for FHWA-funded contracts. Appendix C includes additional documentation, including the survey instrument.

Estimate of the percentage of prime/subcontract dollars by DBEs. Chapter 4 estimates the percentage of prime and subcontract dollars awarded to DBEs by group. Appendix E provides additional results.

Conditions in the Missouri highway contracting marketplace. Chapter 5 summarizes information about the state-wide highway construction and engineering industry collected from in-depth interviews, focus groups, availability surveys and other sources. Three appendices provide supporting detail: Appendix D compares responses of different companies to marketplace barriers questions in the availability survey, Appendix F details the qualitative information collected from business owners and others, and Appendix G reviews qualitative results from other disparity studies in Missouri.

Definition of terms. Appendix A explains acronyms and defines key terms used in the study.

D. Involvement of Businesses, Trade Associations and Other Groups in the Study

The Availability Study incorporated input from business owners, trade association representatives and others from the outside of the study. Examples of efforts included:

- Keen Independent introduction and discussion of the study at the December 2018 AGC-MoDOT Annual Co-op meeting in Lake Ozark;
- Meetings in January, March and May 2019 with an external stakeholder group comprised of DBEs, majority-owned prime contractors, trade association representatives and others (the DBE Focus Group, a standing committee that regularly meets with MoDOT about the DBE Program served as this group);
- Starting in February, a telephone and online survey effort to thousands of businesses across Missouri that asked for comments about the marketplace;
- Two in-person focus groups in March with business owners and others in St. Louis and in Kansas City;
- Two virtual focus groups with prime contractors in April;
- In-depth interviews with more than 40 representatives of businesses, trade associations and other groups;
- In June 2019 after publication of the draft report, two public meetings in St. Louis and Kansas City (total of 34 participants) and one virtual public meeting in June 2019 (16 participants); and
- A study website, dedicated email address and telephone hotline that provided opportunities for comments from the interested public.

Chapter 5 of the report summarizes information received through these efforts and Appendix F provides detailed results.

CHAPTER 2.

MoDOT Highway Contracts

The 2019 MoDOT DBE Availability Study uses FHWA-funded prime contracts and subcontracts awarded from July 2013 through June 2018 as building blocks for the availability analysis.

- When designing the availability research, it is important to understand the geographic area from which MoDOT draws contractors and consultants and the types of work involved in MoDOT and local agency transportation contracts.
- In addition, Keen Independent analyzed overall DBE availability by comparing the number of DBEs to all businesses available for individual MoDOT prime contracts and subcontracts, and then dollar-weighting the results. Because the FHWA-funded contracts for the five-year study period are representative of MoDOT's future FHWA-funded contracts, the study team used them for the contract-by-contract availability analysis.

Chapter 2 describes the contract data collection process and summarizes the types of locations of these contracts:

- A. Overview of FHWA-funded transportation contracts and data collection methods;
- B. Collection and analysis of MoDOT contract data;
- C. Types of work involved in MoDOT contracts; and
- D. Location of businesses performing MoDOT work.

Appendix B provides additional detail concerning collection and analysis of contract data.

A. MoDOT's FHWA-funded Transportation Contracts and Data Collection Methods

MoDOT uses FHWA funds to build and maintain transportation projects. The 2019 DBE Availability Study includes contracts awarded by local public agencies (LPAs) using FHWA funds passed through MoDOT.

- Construction projects include building new highway segments and interchanges, widening and resurfacing roads, and building and improving bridges.
- Engineering-related work includes design and management of projects, planning and environmental studies, surveying and other transportation-related consulting services.

The 2019 DBE Availability Study focuses on highway-related contracts using FHWA monies and does not include contracts using funds from the Federal Transit Administration (FTA), Federal Aviation Administration (FAA) or National Highway Transportation Safety Administration (NHTSA). In total, the study team examined more than \$4 billion in highway-related contract dollars for the study period.

Prime contracts, subcontracts, trucking and materials supply. A typical construction project includes a prime contractor and multiple subcontractors. Trucking companies and materials suppliers are often involved in construction projects as well. Many MoDOT projects have an engineering phase prior to construction that requires work performed by engineering companies and related firms. Keen Independent included both construction and engineering prime contracts and subcontracts in this analysis.

For both construction and engineering contracts, Keen Independent separated the contract dollars going to subcontractors (and truckers and suppliers) from the dollars retained by the prime contractor. Keen Independent calculated the total dollars going to the prime contractor by subtracting subcontractor, trucker and supplier dollars from the total contract value.

MoDOT and local agency contracts. The 2019 DBE Availability Study includes MoDOT contracts and those for local agencies that use MoDOT-administered funds. Through MoDOT’s Local Public Agency, FHWA funds for transportation projects go to cities, counties, regional transportation commissions and other local agencies.

Transportation-related contracts.

The study focused on transportation construction and engineering contracts. The study team excluded any contracts to not-for-profit entities or government agencies.

Districts. Keen Independent examined geographic location of contracts based on the seven MoDOT districts shown in Figure 2-1. The district for a contract corresponds to the physical location of the project, not the address of the contractor.

As discussed in Chapter 3, Keen Independent considered a contractor’s ability to work in a district when determining availability for individual contracts and subcontracts in that district.

Keen Independent coded statewide assignments and work done in multiple locations as “statewide.”

Figure 2-1.
MoDOT districts



B. Collection and Analysis of MoDOT Contract Data

As shown in Figure 2-2, Keen Independent collected data on MoDOT’s FHWA- and state-funded construction and engineering contracts, and LPA’s construction and engineering contracts. For MoDOT’s contracts, data primarily came from MoDOT’s AASHTOWare Projects CRL, Site Manager System and PDFs for contracts saved in DocuSign and SharePoint.

For LPAs contracts, data was obtained through , Statewide Management System (SMS), MoDOT’s AASHTOWare Projects CRL and PDFs for contracts saved in SMS. In addition, the study team collected subcontract data for LPA’s construction contracts directly from local public agencies and prime contractors.

MoDOT contract records provided information including award date, dollars, location (district), general description of the work, whether or not the contract was FHWA- or state-funded, and whether DBE contract goals applied.

Study period. Keen Independent examined contracts awarded from July 2013 through June 2018.

- **Study period start date.** Because Keen Independent aimed to use five years of procurement data, the availability study began with contracts awarded in July 2013.
- **Study period end date.** As Keen Independent began compiling contract data in late 2018, it was appropriate to choose the close of the state fiscal year (June 30, 2018) as the study period end date.

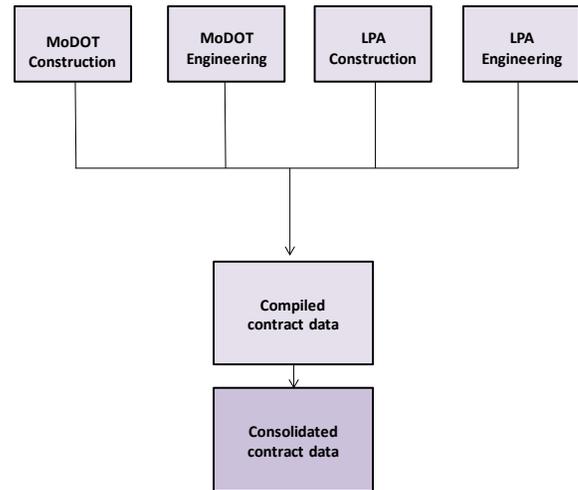
Awarded amount versus payment amounts. Keen Independent collected and analyzed data on awarded amounts for each contract in most cases.

Definition of FHWA-funded contracts. When there was any amount of FHWA-funding expected for a contract, MoDOT treated that contract as FHWA-funded. Keen Independent also collected information on state-funded highway-related contracts. These contracts used no federal funds.

Data sources for local agency contracts. MoDOT maintains prime contract information about certified local agency projects funded through the Statewide Management System. The study team reached out directly to local public agencies (LPAs) and prime contractors to collect subcontractor information.

Limitations concerning contract data. As discussed in Appendix B, MoDOT consistently collects data for MoDOT construction and engineering contracts and subcontracts. However, not all LPAs comprehensively collect subcontract information, especially for non-DBE subcontractors.

Figure 2-2.
Collection of MoDOT contract data



Additionally, prime contractors do not always use subcontracts to procure certain services such as trucking or to acquire supplies. For these types of work, much of the information provided by MoDOT was for DBEs used to meet a contract goal. Keen Independent treated these trucking and supplier procurements by the prime contractor as “subcontracts” in the results of the utilization analyses. However, the study team was able to collect subcontractor information for 90 percent of contract dollars.

C. Types of Work Involved in MoDOT Contracts

Keen Independent’s analysis included 15,545 FHWA-funded and state-funded transportation-related contracts totaling \$4.3 billion over the July 2013 through June 2018 study period. Figure 2-3 presents the number and dollar value of contracts in FHWA- and state-funded contracts.

Figure 2-3.
Number and dollars of MoDOT and local public agency
FHWA-funded transportation contracts and subcontracts,
July 2013–June 2018

	MoDOT	Local agency	Total
Number of contracts			
FHWA-funded	10,347	5,005	15,352
State-funded	193	0	193
Total	10,540	5,005	15,545
Dollars (millions)			
FHWA-funded	\$ 3,519	\$ 702	\$ 4,221
State-funded	35	0	35
Total	\$ 3,554	\$ 702	\$ 4,256

Note: Numbers may not add due to rounding.

Source: Keen Independent from MoDOT contract data.

The study team coded types of work involved in each prime contract and subcontract based on data in MoDOT contract records and information about the type of firm performing the work.

Keen Independent defined the work types based in part on the work type descriptions used by MoDOT as well as Dun & Bradstreet, the leading commercial provider of business information in the United States.

Contract dollars by type of work for FHWA- and state-funded contracts. Figure 2-4 on the following page presents information about contract dollars for 29 different types of prime contract and subcontract work. Dollars for prime contracts are based on the contract dollars retained (i.e., not subcontracted out) by the prime contractor or prime consultant.

When a single prime contract or subcontract pertained to multiple types of work, Keen Independent coded the entire work element based on what appeared to be the predominant discipline in the contract or subcontract. Similarly, when a more specialized activity could not be identified as the primary area of work, these contracts were classified as general road construction and widening or bridge and elevated highway construction, as appropriate.

Figure 2-4.
 MoDOT and local agency FHWA- and state-funded transportation prime contract and subcontract dollars by type of work, July 2013–June 2018

Type of work	FHWA-funded		State-funded		Total	
	Dollars (1,000s)	Percent	Dollars (1,000s)	Percent	Dollars (1,000s)	Percent
Construction						
Bridge and elevated highway construction	\$ 927,257	22.0 %	\$ 1,178	3.3 %	\$ 928,434	21.9 %
Highway and street paving, asphalt	912,912	21.6	10,062	28.6	922,974	21.8
General road construction and widening	659,214	15.6	83	0.2	659,297	15.5
Excavation, site prep, grading and drainage	320,707	7.6	158	0.4	320,865	7.6
Installation of guardrails, fencing or signs	197,024	4.7	9,649	27.4	206,673	4.9
Concrete flatwork (including sidewalk, curb and gutters)	143,488	3.4	555	1.6	144,043	3.4
Electrical work including lighting and signals	114,325	2.7	2,328	6.6	116,653	2.7
Pavement surface treatment (such as sealing)	97,252	2.3	5,974	17.0	103,227	2.4
Landscaping and related work including erosion control	92,151	2.2	1,496	4.2	93,647	2.2
Portland cement concrete paving	88,504	2.1	0	0.0	88,504	2.1
Temporary traffic control	72,739	1.7	720	2.0	73,459	1.7
Striping or pavement marking	55,548	1.3	450	1.3	55,998	1.3
Structural steel work	55,398	1.3	104	0.3	55,502	1.3
Painting for road or bridge projects	49,193	1.2	550	1.6	49,742	1.2
Trucking and hauling	30,152	0.7	0	0.0	30,152	0.7
Drilling and foundations	23,920	0.6	0	0.0	23,920	0.6
Concrete cutting	13,924	0.3	13	0.0	13,937	0.3
Underground utilities	8,522	0.2	1,096	3.1	9,618	0.2
Wrecking and demolition	7,674	0.2	19	0.1	7,693	0.2
Other concrete work	6,783	0.2	0	0.0	6,783	0.2
Other construction	14,145	0.3	28	0.1	14,173	0.3
Total	\$ 3,890,832	91.8 %	\$ 34,462	97.7 %	\$ 3,911,121	92.2 %
Engineering						
Architecture and engineering	\$ 162,558	3.9 %	\$ 417	1.2 %	\$ 162,975	3.8 %
Inspection and testing	43,312	1.0	2	0.0	43,314	1.0
Surveying and mapping	19,990	0.5	73	0.2	20,063	0.5
Construction management	4,896	0.1	0	0.0	4,896	0.1
Environmental consulting	3,400	0.1	0	0.0	3,400	0.1
Other professional services	8,892	0.2	0	0.0	8,892	0.2
Total	\$ 243,048	5.8 %	\$ 491	1.4 %	\$ 243,540	5.7 %
Goods						
Asphalt, concrete and other paving materials	\$ 40,320	1.0 %	\$ 77	0.2 %	\$ 40,397	1.0 %
Petroleum and petroleum products	14,342	0.3	175	0.5	14,517	0.3
Aggregate materials supply	2,352	0.1	0	0.0	2,352	0.1
Fence or guardrail materials	1,545	0.0	0	0.0	1,545	0.0
Other goods	28,654	0.7	28	0.1	28,682	0.7
Total	\$ 87,214	2.1 %	\$ 280	0.8 %	\$ 87,493	2.1 %
Grand total	\$ 4,221,094	99.7 %	\$ 35,233	99.9 %	\$ 4,242,154	100.0 %

Source: Keen Independent from MoDOT contract data.

As shown in Figure 2-4, general bridge work, asphalt paving and general road construction accounted for almost the 60 percent of MoDOT FHWA-funded transportation contract dollars.

- Prime contracts and subcontracts for bridge and elevated highway construction accounted for \$927 million of the FHWA-funded contract dollars. This type of work accounted for 22 percent of the contract dollars examined.
- Asphalt paving accounted for \$913 million or 21.6 percent of FHWA-funded contracts and subcontracts.
- General road construction and widening accounted for \$659 million of FHWA-funded prime contracts and subcontracts, or about 16 percent of the total.

Types of work that did not fit into the specific categories listed in Figure 2-4 were included in “other construction,” “other professional services” or “other goods” as appropriate. Together, these “other” categories comprised 1.2 percent of FHWA-funded contract dollars, as shown in Figure 2-4.

D. Location of Businesses Performing MoDOT Work

In a Keen Independent availability study, analyses of local marketplace conditions and the availability of firms to perform contracts and subcontracts focus on the “relevant geographic market area” for an agency’s contracting. The study team determined the relevant geographic market area for MoDOT’s highway construction and engineering contracts through the following steps:

- For each prime contractor and subcontractor receiving a MoDOT prime contract or subcontract, Keen Independent determined whether the company had a business establishment in (a) Missouri, (b) the Kansas portion of the Kansas City Metropolitan Statistical Area (MSA), or (c) the Illinois portion of the St. Louis MSA based upon MoDOT vendor records and additional research.¹ (Keen Independent included the non-Missouri portions of each of those two metropolitan areas because contractors and consultants located in one part of a metropolitan area tend to work across that metropolitan area.)
- Keen Independent then added the dollars for firms in these three areas and compared that subtotal to the total contract dollars examined for all contractors and vendors.

Based upon analysis of combined MoDOT and LPA contract dollars from July 2013 through June 2018, firms with locations in Missouri and the Kansas portion of the Kansas City, MO-KS MSA, and the Illinois portion of the St. Louis, MO-IL MSA, obtained 95 percent of FHWA-funded transportation contract dollars. This might be a minimum estimate of the amount of work performed by “local” companies, as some of the firms identified as outside the area could have locations in Missouri that were not identified in study team research.

¹ Relevant geographic market area includes the state of Missouri, Kansas portion of the Kansas City MO-KS Metropolitan Statistical Area (Johnson County, Leavenworth County, Linn County, Miami County and Wyandotte County), and the Illinois portion of the St. Louis, MO-IL Metropolitan Statistical Area (Bond County, Calhoun County, Clinton County, Jersey County, Macoupin County, Madison County, Monroe County and St. Clair County).

Figure 2-5.
Dollars of MoDOT and LPA FHWA-funded prime contracts and subcontracts by location of firm, July 2013–June 2018

	Missouri and relevant KS and IL counties	Out of market area	Total
Dollars (millions)			
FHWA-funded	\$ 4,023	\$ 198	\$ 4,221
State-funded	<u>29</u>	<u>6</u>	<u>35</u>
Total	\$ 4,052	\$ 204	\$ 4,256
Percent of total dollars			
FHWA-funded	95 %	5 %	100 %
State-funded	82	18	100
Total	95 %	5 %	100 %

Note: Numbers may not add due to rounding.

Source: Keen Independent from MoDOT contract data.

Based on this information, Keen Independent determined that Missouri, the Kansas portion of the Kansas City MSA, and the Illinois portion of the St. Louis MSA should be selected as the relevant geographic market area for MoDOT highway contracting. Therefore, Keen Independent’s availability analysis and other research focused on firms with locations in Missouri and relevant Kansas and Illinois counties.

CHAPTER 3.

Availability Analysis

Keen Independent analyzed the availability of DBEs and other firms that are ready, willing and able to perform MoDOT and local agency prime contracts and subcontracts. Chapter 3 describes the study team’s availability analysis in eight parts:

- A. Purpose of the availability analysis;
- B. Definitions of MBEs, WBEs, certified DBEs, potential DBEs and majority-owned businesses;
- C. Information collected about potentially available businesses;
- D. Businesses included in the availability database;
- E. Businesses in the availability database counted as DBEs or potential DBEs;
- F. Availability calculations on a contract-by-contract basis;
- G. State-wide availability results for minority- and women-owned firms;
- H. Base figure for MoDOT’s overall DBE goal for FHWA-funded contracts; and
- I. Availability results by district.

Appendix C provides supporting information.

A. Purpose of the Availability Analysis

Keen Independent examined the availability of DBEs for transportation contracts to develop the base figure for MoDOT’s overall DBE goal for FHWA-funded contracts. The availability analysis determines the percentage of MoDOT contract dollars that might go to currently-certified and potential DBEs based on their relative availability for specific types, sizes and locations of MoDOT’s FHWA-funded prime contracts and subcontracts.

When examining availability for FHWA-funded contracts, the Availability Study includes current DBEs and those minority- and women-owned firms that appear that they would be eligible for DBE certification (“potential DBEs”). Therefore, businesses that have been denied certification, have been decertified or have graduated from the DBE Program are not counted as potential DBEs in the availability analysis.

This process follows guidance in the Final Rule effective November 3, 2014 and the United States Department of Transportation’s (USDOT’s) “Tips for Goal-Setting” that explains that minority- and women-owned firms that are not currently certified as DBEs but that could be DBE-certified should be counted as DBEs in the base figure calculation.

The balance of Chapter 3 explains each step in determining the base figure for MoDOT’s overall DBE goal, beginning with definitions of terms.

B. Definitions of MBEs, WBEs, Certified DBEs, Potential DBEs and Majority-owned Businesses

The following definitions are useful to understanding how different types of businesses are included or not included as DBEs in the availability analysis.

MBE/WBEs. The availability calculations use a definition of minority- and women-owned firms that correspond to the race, ethnic and gender groups identified in federal regulations.

As specified in 49 Code of Federal Regulations (CFR) Part 26, the study team examined availability results for businesses owned by:

- African Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans;
- Hispanic Americans;
- Native Americans; and
- Non-Hispanic white women.

Note that “majority-owned businesses” refer to businesses that are not minority- or women-owned.

Certified DBEs. Certified DBEs are businesses that are certified as such through the Missouri Regional Certification Committee, meaning they are businesses that:

- Are owned and controlled by one or more individuals who are presumed to be both socially and economically disadvantaged according to 49 CFR Part 26;¹ and
- Have met the gross revenue and personal net worth requirements described in 49 CFR Part 26.

Potential DBEs. Potential DBEs are MBE/WBEs that appear that they could be DBE-certified based on revenue requirements described in 49 CFR Section 26.65. Potential DBEs do not include businesses that have been decertified or have graduated from the DBE Program. The study team examined the availability of potential DBEs to help MoDOT calculate the base figure of its future overall DBE goal for FHWA-funded contracts.

¹ The Federal DBE Program specifies that African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, women of any race or ethnicity, and any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration are presumed to be disadvantaged.

Figure 3-1 further explains Keen Independent’s definition of potential DBEs.

Keen Independent obtained information from MoDOT’s External Civil Rights Division to identify firms that, in recent years, had graduated from the DBE Program or had been denied DBE certification (and had not been recertified).

Majority-owned businesses. Majority-owned businesses are businesses that are not owned by minorities or women (i.e., businesses owned by non-Hispanic white males).

C. Information Collected about Potentially Available Businesses

Keen Independent’s availability analysis focused on firms with locations in Missouri and those outside the state that were in the Kansas City or the St. Louis metropolitan areas. Only those companies that work in subindustries related to highway construction and engineering were examined.

Based on review of MoDOT prime contracts and subcontracts during the study period, the study team identified specific subindustries to include in the availability analysis. Keen Independent contacted businesses within those subindustries via online and telephone surveys to collect information about their availability for specific types, sizes and locations of MoDOT and local agency prime contracts and subcontracts.

Keen Independent’s method of examining availability is sometimes referred to as a “custom census” and has been accepted in federal court. Figure 3-2 on the following page summarizes characteristics of Keen Independent’s approach to examining availability.

Figure 3-1. Definition of potential DBEs

Keen Independent did not include the following types of MBE/WBEs in its definition of potential DBEs:

- MBE/WBEs that had graduated from the DBE Program and not been recertified, or were decertified;
- MBE/WBEs that are not currently DBE-certified that had applied for certification and had been denied; and
- MBE/WBEs not currently DBE-certified that appear to have exceeded the three-year average annual revenue limits for DBE certification.

At the time of this study, the overall revenue limit for DBE certification was \$23,980,000 (three-year average of annual gross receipts). Lower revenue limits applied for subindustries according to the U.S. Small Business Administration small business standards. Some MBE/WBEs exceeded either the \$23,980,000 or the subindustry revenue limits based on information that they provided in the availability surveys.

Business owners must also meet USDOT personal net worth limits for their businesses to qualify for DBE certification. Personal net worth was only a factor in the definition of potential DBEs when a firm had graduated or been denied certification based on personal net worth that exceeded certification limits.

Overview of availability surveys. The study team conducted telephone surveys with business owners and managers to identify businesses that are available for MoDOT and local agency transportation prime contracts and subcontracts.² Figure 3-3 on the following page summarizes the process for identifying businesses, contacting them and completing the surveys.

Keen Independent began by compiling lists of business establishments that:

- Previously identified themselves to MoDOT as interested in learning about future work such as by registering with Bid Express, previously submitting prime or sub bids or proposals, becoming planholders or requesting information updates from MoDOT’s Local Public Agency Office; or
- Dun & Bradstreet/Hoovers identified in certain transportation contracting-related subindustries in Missouri.³

Telephone surveys. Figure 3-3 outlines the process Keen Independent used to complete surveys with businesses possibly available for MoDOT and local agency transportation-related work.

- The study team contacted firms by telephone to ask them to participate in the surveys (identifying MoDOT as the organization requesting the information). Surveys began in February and were completed in early April 2019.
- Some firms completed surveys when first contacted. For firms that did not immediately respond, the study team executed intensive follow-up efforts over many weeks.
- Businesses could also learn about the availability surveys or complete the surveys via other methods such as fax, email and the online survey posted on the MoDOT website.

Figure 3-2.
Summary of the strengths of Keen Independent’s “custom census” approach

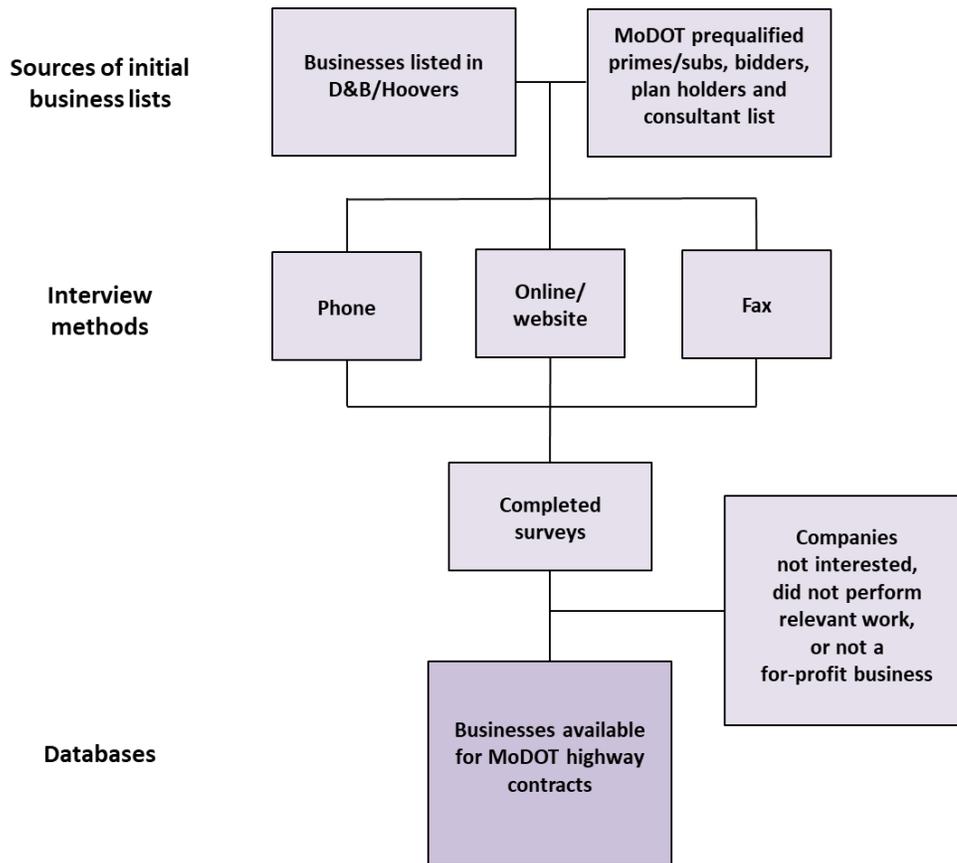
Federal courts have reviewed and upheld “custom census” approaches to examining availability. Compared with some other previous court-reviewed custom census approaches, Keen Independent added several layers of screening to determine which businesses are potentially available for work in the Missouri transportation contracting industry.

For example, the Keen Independent analysis included discussions with businesses about interest in MoDOT and local government work, contract role and geographic locations of their work — items not included in some of the previous court-reviewed custom census approaches. Keen Independent also analyzed the sizes of contracts and subcontracts that businesses have bid on or performed in the past (referred to as “bid capacity” in this analysis).

² The study team offered business representatives the option of completing surveys online or via fax or email if they preferred not to complete surveys via telephone.

³ D&B’s Hoover’s database is accepted as the most comprehensive and complete source of business listings in the nation. Keen Independent collected information about all business establishments listed under 8-digit work specialization codes (as developed by D&B) that were most related to the transportation contracts that MoDOT awarded during the study period.

Figure 3-3.
Availability survey process



Information collected in availability surveys. Survey questions covered many topics about each organization, including:

- Types of transportation contract work performed, from asphalt paving to surveying (Figure C-1 in Appendix C provides a list of work categories included in the surveys);
- Qualifications and interest in performing transportation-related work for MoDOT and local agencies in Missouri;
- Qualifications and interest in performing transportation-related work as a prime contractor or as a subcontractor (or trucking company or materials supplier);
- Past work in Missouri as a prime contractor or as a subcontractor, trucker or supplier;
- Ability to work in specific geographic districts (Northwest District, Northeast District, Central District, St. Louis District, Kansas City District, Southwest District and Southeast District);
- Largest prime contract or subcontract bid on or performed in Missouri in the previous seven years;
- Year of establishment; and
- Race/ethnicity and gender of ownership (Appendix C provides a survey instrument).

Screening of firms for the availability database. Keen Independent considered businesses to be potentially available for MoDOT transportation prime contracts or subcontracts if they reported possessing the following characteristics:

- Being a private business (i.e., not a public agency or not-for-profit organization); and
- Qualifications for and interest in work for MoDOT or local governments.

D. Businesses Included in the Availability Database

Data from the availability surveys allowed Keen Independent to develop a representative depiction of businesses that are qualified and interested in the highest dollar volume areas of MoDOT and local agency transportation-related work, but it should not be considered an exhaustive list of every business that could potentially participate in MoDOT and local agency contracts (see Appendix C).

After completing surveys with 4,811 Missouri businesses, the study team reviewed responses to develop a database of businesses that are potentially available for MoDOT highway contracting work. The study team’s research identified 1,020 businesses reporting that they were available for specific types of contracts that MoDOT and local agencies awarded during the study period. Of those businesses, 107 (10.5%) were minority-owned and 180 (17.6%) were white women-owned. MBE/WBEs totaled 287 firms, or about 28 percent of all firms in the availability database.

Figure 3-4 presents the number of businesses included in the availability database for each racial/ethnic and gender group.

Figure 3-4.
Number of businesses
in the availability database by race,
ethnicity and gender ownership

Note:
Numbers rounded to nearest tenth of
one percent. Percentages may not add to
totals due to rounding.

Source:
Keen Independent availability analysis.

Race/ethnicity and gender	Number of firms	Percent of firms
African American-owned	79	7.7 %
Asian-Pacific American-owned	2	0.2
Subcontinent Asian American-owned	3	0.3
Hispanic American-owned	12	1.2
Native American-owned	11	1.1
WBE (white women-owned)	180	17.6
Total MBE/WBE	287	28.1 %
Majority-owned firms	733	71.7
Total	1,020	100.0 %

Because the results in Figure 3-4 are based on a simple count of firms with no analysis of availability for specific MoDOT contracts, they only reflect the first step in the availability analysis.

E. Businesses in the Availability Database Counted as DBEs or Potential DBEs

Keen Independent counted two groups of firms as DBEs or potential DBEs in the base figure analysis.

Current DBEs. When performing the base figure analysis for the overall DBE goal, the study team identified firms in the availability database as “current DBEs” if they were certified as DBEs in Missouri as of December 2018. Keen Independent obtained certification information from MoDOT.

Potential DBEs that are not currently certified. Keen Independent also included potential DBEs in the availability calculations for FHWA-funded contracts. All minority- and women-owned firms that were not DBE-certified were counted as potential DBEs except for the following groups:

- Firms that in recent years graduated from the DBE Program, were decertified from the Program or applied for DBE certification in Missouri and were denied (based on information supplied by MoDOT); and
- Businesses in the availability interviews that reported average annual revenue over three years exceeding the revenue limits for DBE certification for their subindustry.

Figure 3-5.
Number of current or potential DBEs businesses and non-DBEs in the availability database

Note:
Numbers rounded to nearest tenth of 1 percent. Percentages may not add to totals due to rounding.

Source:
Keen Independent availability analysis.

Race/ethnicity and gender	Number of firms	Percent of firms
Current or potential DBEs		
African American-owned	76	7.5 %
Asian-Pacific American-owned	2	0.2
Subcontinent Asian American-owned	3	0.3
Hispanic American-owned	12	1.2
Native American-owned	10	1.0
WBE (white women-owned)	166	16.3
Majority-owned firms	1	0.1
Total current or potential DBEs	270	26.5 %
Non-DBEs		
African American-owned	3	0.3 %
Asian-Pacific American-owned	0	0.0
Subcontinent Asian American-owned	0	0.0
Hispanic American-owned	0	0.0
Native American-owned	1	0.1
WBE (white women-owned)	14	1.4
Majority-owned firms	732	71.8
Total non-DBEs	750	73.5 %

F. Availability Calculations on a Contract-by-Contract Basis

Keen Independent analyzed information from the availability database and data from five years of FHWA-funded contracts to develop dollar-weighted availability estimates.

- Dollar-weighted availability estimates represent the percentage of MoDOT transportation contracting dollars that DBEs might be expected to receive based on their availability for specific types and sizes of MoDOT transportation-related construction and engineering prime contracts and subcontracts.
- Keen Independent’s approach to availability is a bottom up, contract-by-contract process of “matching” available firms to specific prime contracts and subcontracts.
- The study team starts with MBE/WBEs, regardless of certification, and then adjusted the dollar-weighted availability estimates to reflect current or potential DBEs.

Steps to calculating availability. Only a portion of the businesses in the availability database were considered potentially available for any given MoDOT construction or engineering prime contract or subcontract (referred to collectively as “contract elements”). The study team first examined the characteristics of each specific contract element, including type of work, location of work, contract size, whether it was a prime contract or a subcontract, and contract date. The study team then identified businesses in the availability database that identified themselves as qualified and interested in working for MoDOT or a local agency that performed work of that type, in that location, of that size, in that role (i.e., prime contractor or subcontractor), and that were in business in the year that the contract element was awarded.

Steps to the availability calculations. The study team identified the specific characteristics of each of the 15,352 FHWA-funded MoDOT and local agency prime contracts and subcontracts from July 2013 through June 2018 and then took the following steps to calculate availability for each contract element:

1. For each contract element, the study team identified businesses in the availability database that reported in the telephone or online survey that they:
 - Are qualified and interested in performing transportation-related work in that particular role, for that specific type of work, for that particular type of agency (MoDOT or local agencies) or had actually performed work in that role based on contract data for the study period;
 - Had performed work in that particular role (prime or sub) in Missouri within the past seven years;
 - Are able to do work in that geographic location;
 - Had bid on or performed work of that size in Missouri in the past seven years; and
 - Were in business in the year that the contract or task order was awarded.

2. For the specific contract element, the study team then counted the number of MBEs (by race/ethnicity), WBEs and majority-owned businesses among all businesses in the availability database that met the criteria specified in step 1 above.
3. The study team translated the numeric availability of businesses for the contract element into percentage availability (as described in Figure 3-6).

The study team repeated those steps for each contract element examined in study. The study team multiplied the percentage availability for each contract element by the dollars associated with the contract element, added results across all contract elements, and divided by the total dollars for all contract elements. The result was a dollar-weighted estimate of overall availability of MBE/WBEs and estimates of availability for each MBE/WBE group. Figure 3-6 provides an example of how the study team calculated availability for a specific subcontract in the study.

Special considerations for supply contracts.

When calculating availability for a particular type of materials supply, Keen Independent counted, as available, all firms supplying those materials that reported qualifications and interest in that work for MoDOT (or for local agencies when it was a local agency contract) and indicated that they could provide supplies in the pertinent district of the state. Bid capacity was not considered in these calculations.

Improvements on a simple “head count” of businesses. Keen Independent used this dollar-weighted approach to calculate MBE/WBE availability for MoDOT and local agency work rather than using a simple “head count” of MBE/WBEs (i.e., simply calculating the percentage of all Missouri transportation contracting businesses that are minority- or women-owned). Using a dollar-weighted approach typically results in lower availability estimates for MBEs and WBEs compared to a headcount approach. This is due in large part to Keen Independent’s consideration of type and size of work performed when measuring availability, and because dollar-weighted availability results are calculated for each contract element (a large prime contract has a greater weight in calculating overall availability than a small subcontract). The types and sizes of contracts for which MBE/WBEs are available in Missouri tend to be smaller than those of other businesses. Therefore, MBE/WBEs are less likely to be identified as available for the largest prime contracts and subcontracts. Also, MBE/WBEs comprise a relatively smaller portion of firms performing the types of work that comprise a large share of MoDOT contract dollars.

Figure 3-6.
Example of an availability calculation

One of the subcontracts examined was for concrete flatwork (\$39,472) on a 2017 FHWA-funded contract for a local agency in Central Missouri. To determine the number of MBE/WBEs and majority-owned firms available for that subcontract, the study team identified businesses in the availability database that:

- a. Reported qualifications and interest in working as a subcontractor on local government transportation projects.
- b. Indicated that they perform concrete flatwork on transportation-related projects;
- c. Reported working or bidding on subcontracts in Missouri in the past seven years;
- d. Reported ability to perform work in Central Missouri; and
- e. Reported bidding on work of similar or greater size in the past seven years; and
- f. Were in business in 2017.

There were 85 businesses in the availability database that met those criteria. Of those businesses, 24 were MBEs or WBEs. Therefore, MBE/WBE availability for the subcontract was 28 percent (i.e., $24/85 = 28\%$).

The weight applied to this contract was $\$39,472 \div \$4.2 \text{ billion} = 0.0009\%$ (equal to its share of total FHWA-funded contract dollars). Keen Independent made corresponding calculations for each prime contract and subcontract.

There are several important ways in which Keen Independent’s dollar-weighted approach to measuring availability is more precise than completing a simple head count approach.

Keen Independent’s approach accounts for type of work. USDOT suggests calculating availability based on businesses’ abilities to perform specific types of work. USDOT gives the following example in Part II F of “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program:”

For instance, if 90 percent of your contract dollars will be spent on heavy construction and 10 percent on trucking, you should weight your calculation of the relative availability of firms by the same percentages.⁴

The study team took type of work into account by examining more than 30 different subindustries related to highway construction, engineering and related purchases when estimating availability for MoDOT contracts.

Keen Independent’s approach accounts for qualifications and interest in transportation-related prime contract and subcontract work. The study team collected information on whether businesses are qualified and interested in working as prime contractors, subcontractors, or both on MoDOT and local agency transportation work, in addition to considering several other factors related to prime contracts and subcontracts (e.g., contract types, sizes and locations):

- Only businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts (or included because contract data for MoDOT or local agencies indicated that they had prime contracts during the study period).
- Only businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts (or included because contract data for MoDOT or local agencies indicated that they had subcontracts during the study period).
- Businesses that reported being qualified for and interested in working as both prime contractors and subcontractors were counted as available for both prime contracts and subcontracts.

Keen Independent’s approach accounts for the size of prime contracts and subcontracts. The study team considered the size — in terms of dollar value — of the prime contracts and subcontracts that a business bid on or received in the previous seven years (i.e., bid capacity) when determining whether to count that business as available for a particular contract element.

⁴ Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program. (2013, June 25). Available at <http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>

Keen Independent’s approach is consistent with many recent, key court decisions that have found relative capacity measures to be important to measuring availability (e.g., *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*; *Western States Paving Company v. Washington State DOT*; *Rotbe Development Corp. v. U.S. Department of Defense*;⁵ and *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*).⁶

Keen Independent’s approach accounts for the geographic location of the work. Firms available for work in one district might not be available for work in another part of the state. The study team determined the location where work was performed for MoDOT and local agency contracts according to MoDOT district: Northwest, Northeast, Central, St. Louis, Kansas City, Southwest or Southeast.

Keen Independent’s approach generates dollar-weighted results. Keen Independent examined availability on a contract-by-contract basis and then dollar-weighted the results for different sets of contract elements. Thus, the results of relatively large contract elements contributed more to overall availability estimates than those of relatively small contract elements. This approach is consistent with USDOT’s “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program,” which suggests a dollar-weighted approach to calculating availability.

G. State-wide Availability Results for Minority- and Women-owned Firms

Figure 3-7 presents overall dollar-weighted availability estimates by MBE/WBE group for those contracts. Overall, MBE/WBE availability for FHWA-funded contracts is 13.40 percent. This result is lower than the percentage of availability firms that are MBE/WBE (28.1%) in Figure 3-4.

Figure 3-7.
Overall dollar-weighted availability estimates for MBE/WBEs
for MoDOT FHWA-funded contracts, July 2013–June 2018

Race/ethnicity and gender	FHWA
African American-owned	3.37 %
Asian-Pacific American-owned	< .01
Subcontinent Asian American-owned	0.05
Hispanic American-owned	0.45
Native American-owned	0.93
Total MBE	4.80 %
WBE (white women-owned)	8.61
Total MBE/WBE	13.40 %

Note: Numbers may not add to totals due to rounding.

Source: Keen Independent availability analysis.

⁵ *Rotbe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008).

⁶ *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*, 943 F. Supp. 1546 (S.D. Fla. 1996).

H. Base Figure for MoDOT's Overall DBE Goal for FHWA-funded Contracts

Establishing a base figure is the first step in calculating an overall goal for DBE participation in MoDOT's FHWA-funded contracts. For the base figure for FHWA-funded contracts, calculations focus on current and potential DBEs.

Keen Independent's approach to calculating MoDOT's base figure is consistent with:

- Court-reviewed methodologies in several states, including Washington, California, Illinois and Minnesota;
- Instructions in The Final Rule effective February 28, 2011 that outline revisions to the Federal DBE Program; and
- USDOT's "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program."

Base figure for FHWA-funded contracts. As discussed above, Keen Independent's availability analysis indicates that the dollar-weighted availability of minority- and women-owned firms for MoDOT's FHWA-funded transportation contracts is 13.40 percent based on current availability information and analysis of FHWA-funded MoDOT and local agency contracts awarded from July 2013 through June 2018.

Calculations to convert MBE/WBE availability to current and potential DBEs for the base figure.

Figure 3-8 provides the calculations to derive current/potential DBE availability when starting from the 13.40 percent MBE/WBE availability figure.

For FHWA-funded contracts, there were two groups of MBE/WBEs that Keen Independent did not count as potential DBEs when calculating the base figure:

- **Graduated or been denied DBE certification.** Keen Independent did not include MBE/WBEs that, in recent years, graduated from the DBE Program or had applied for DBE certification in Missouri and had been denied (based on information supplied by MoDOT's External Civil Rights Division). The study team counted eight MBE/WBEs as non-DBEs as a result.
- **Revenue exceeding DBE limits.** The study team did not count MBE/WBEs that, in the availability surveys, reported having average annual revenue over the most recent three years (at the time of the 2019 survey) that exceeded the revenue limits for DBE certification for their subindustry (as of 2017). Ten MBE/WBEs were counted as non-DBEs for this reason.

Adjusting for these two categories of MBE/WBEs reduces the base figure contracts by 0.96 percentage points (see Figure 3-8). One white male-owned DBE was then added to the base figure, increasing the figure by 0.01 percent. The base figure for MoDOT’s overall DBE goal is 12.45 percent. It represents the level of current/potential DBE participation anticipated based on analysis of FHWA-funded contracts from July 2013 through June 2018.

Figure 3-8.
Overall dollar-weighted availability estimates for current and potential DBEs for FHWA-funded contracts, July 2013–June 2018

Calculation of base figure	FHWA
Total MBE/WBE	13.40 %
Less firms that graduated from the DBE Program or were denied DBE certification in recent years or exceed revenue thresholds	<u>0.96</u>
Subtotal	12.44 %
Plus white male-owned DBEs	<u>0.01</u>
Current and potential DBEs	12.45 %

Note: Numbers may not add to totals due to rounding.

Source: Keen Independent availability analysis.

MoDOT staff indicated the mix of FHWA-funded projects for several years in the future is expected to be similar to projects from July 2013 through June 2018. If the types, sizes and locations of work were to substantially change for future years, MoDOT’s overall base figure might be higher or lower.

Dollar-weighted availability of current DBEs. Keen Independent also calculated the base figure if it were to only count current DBEs. In this calculation, “potential DBEs” are included in the analysis as “non-DBEs.” The base figure would be 9.08 percent if limited to currently-certified DBEs.

I. Availability Results by District

The study team followed a similar process to determine dollar-weighted availability of current and potential DBEs by district.

- First the full list of contracts was divided into seven geographical areas (Northwest, Northeast, Central, St. Louis, Kansas City, Southwest and Southeast).
- Businesses indicating that they were available to do business in a given district were included in that district’s analysis; other businesses were excluded.
- Keen Independent then conducted the contract-by-contract analysis described in Figure 3-6 for the contracts in each district.

Figure 3-9 shows the weighted MBE/WBE and the DBE availability for each of the MoDOT districts.

For example, for contracts located in the St. Louis District:

- The dollar-weighted MBE/WBE availability was 14.35 percent.
- This percentage was adjusted downward to account for the 0.76 percent of firms that were MBE/WBEs but were denied certification, were decertified or graduated from the DBE program or exceeded revenue thresholds.
- Any white male-owned DBEs were then added to the total. There was one such firm, which represented 0.01 percent of firms indicating availability to perform work in the St. Louis area.

The resulting base figure for current and potential DBEs is 13.60 percent for work in the St. Louis area.

Firms in the availability survey tended to report that they were available for work in the district in which they were located plus adjoining districts. In general, dollar-weighted availability was highest in St. Louis, Northeast, Southeast and Central Districts because MBE/WBEs comprise a higher percentage of firms in the St. Louis area than in the western parts of the state.

Figure 3-9.

Overall dollar-weighted availability estimates for current and potential DBEs for FHWA-funded contracts, by district

Calculation of base figure	District						
	Kansas City	North-west	North-east	St. Louis	South-east	South-west	Central
Total MBE/WBE	11.23 %	11.21 %	14.86 %	14.35 %	15.05 %	13.00 %	16.08 %
Less firms that graduated from the DBE Program or were denied DBE certification in recent years or exceed revenue thresholds	<u>1.05</u>	<u>0.78</u>	<u>0.96</u>	<u>0.76</u>	<u>1.00</u>	<u>1.34</u>	<u>0.71</u>
Plus white male-owned DBEs	<u>0.01</u>						
Current and potential DBEs	10.19 %	10.44 %	13.91 %	13.60 %	14.06 %	11.67 %	15.38 %

Note: Numbers may not add to totals due to rounding.

Source: Keen Independent availability analysis.

CHAPTER 4.

DBE Participation Analysis

Keen Independent’s utilization analysis reports the percentage of MoDOT highway contract dollars going to Disadvantaged Business Enterprises (DBEs). Unless otherwise specified, results combine MoDOT and LPA contracts.

Keen Independent present results as follows:

- A. Overview of the utilization analysis;
- B. Overall DBE utilization on MoDOT contracts;
- C. Utilization by racial, ethnic and gender group;
- D. Contracts with DBE contract goals and those without goals;
- E. Trends during the study period;
- F. Construction and engineering contracts;
- G. MoDOT-awarded contracts and local public agency-awarded contracts;
- H. MoDOT districts;
- I. Prime contracts and subcontracts; and
- J. Prime contracts by size of procurement.

A. Overview of the Utilization Analysis

Keen Independent examined the participation of DBE firms on MoDOT highway contracts from July 2013 through June 2018. In total, Keen Independent’s utilization analysis included 15,545 contracts totaling \$4.3 billion over this time period, including FHWA- and state-funded contracts. Keen Independent’s analysis of these contracts included 12,198 subcontracts.

The study team collected information about MoDOT projects as well as work awarded for local public agency (LPA) projects that use funds administered through MoDOT. Chapter 3 and Appendix C explain the methods used to collect these data.

Note that MoDOT awards work through a variety of contract agreements; to simplify, the utilization analysis refers to all such work as “contracts.”¹

¹ Also, prime contractors, not MoDOT or local agencies, “award” subcontracts to subcontractors. To streamline the discussion, MoDOT and local agency “award” of contract elements is used here and throughout the report.

Calculation of “utilization.” DBE “utilization” is measured as the percentage of prime contract and subcontract dollars awarded to DBEs during the study period (see Figure 4-1).

To avoid double-counting contract dollars and to more accurately gauge utilization of different types of firms, Keen Independent based the utilization of prime contractors on the amount of the contract “retained” by the prime after deducting subcontract amounts. In other words, a \$1 million contract that involved \$400,000 in subcontracting only counts as \$600,000 to the prime contractor in the utilization analysis.

Different results than in MoDOT Uniform Reports of DBE Commitments/Awards and Payments. USDOT requires agencies such as MoDOT to submit reports about its DBE utilization on its FHWA-funded contracts twice each year (typically in December and June).

Keen Independent’s analysis of DBE utilization goes beyond what MoDOT currently reports to FHWA, as explained below.

- **All highway contracts, not just FHWA-funded contracts.** Because FHWA requires MoDOT to prepare DBE utilization reports on its FHWA-funded contracts, MoDOT’s Uniform Reports do not include state-funded contracts.
- **More complete contract information.** Through MoDOT’s assistance during the availability study, the study team was able to analyze more data directly from contract PDFs and prime contractors than MoDOT had in its Uniform Reports.
- **Differences in classifying a subcontract within a time period.** Keen Independent attempted to include subcontracts associated with a prime contract in the same time period as that prime contract (e.g., a 2015 subcontract on a September 2014 prime contract would be included in results for FY 2014). MoDOT included data for a subcontract in the time period in which it was awarded (e.g., a 2015 subcontract would be included in the 2015 results).

**Figure 4-1.
Defining and measuring
“utilization”**

“Utilization” of DBEs refers to the share of prime contract and subcontract dollars that an agency awarded to DBEs during a particular time period. Keen Independent calculated DBE utilization for a group of contracts by dividing the contract dollars going to DBEs by the contract dollars for all firms.

Keen Independent measures DBE utilization as a percentage of total prime contract and subcontract *dollars*. For informational purposes, the study team also reports *number* of prime contracts and subcontracts awarded to DBEs and to all firms.

In certain utilization analyses, Keen Independent provides detailed breakdowns of DBE utilization for firms owned by different racial, ethnic and gender groups.

B. Overall DBE Utilization on MoDOT Contracts

Figure 4-2 presents overall DBE utilization (as a percentage of total dollars) on MoDOT highway-related contracts awarded during the study period, including separate results for FHWA- and state-funded contracts.

Figure 4-2.
DBE share of prime contract/subcontract dollars for MoDOT FHWA- and state-funded highway contracts, July 2013–June 2018

Note:

Number of contracts/subcontracts analyzed is 15,352 for FHWA-funded contracts, 193 for state-funded contracts and 15,545 for DBE contracts/subcontracts.



Source:

Keen Independent from data on MoDOT and LPA contracts, July 2013–June 2018.

FHWA-funded contracts. Keen Independent examined 15,352 FHWA-funded prime contracts and subcontracts from July 2013 through June 2018. In total, there was \$4.2 billion in contract dollars for these contracts, much of the contract dollars examined in the study.²

Firms that were DBE-certified at the time of the contract received \$564 million, or 13.4 percent of FHWA-funded contract dollars during the study period.

State-funded contracts. The study team obtained data on 193 state-funded highway construction and engineering-related prime contracts and subcontracts for July 2013 through June 2018. These contracts totaled \$35 million. DBEs received 6.8 percent of the contract dollars for state-funded highway contracts during the study period. MoDOT does not include these contracts in its Uniform Reports for DBE utilization.

² Note that because MoDOT and USDOT treat each contract with any FHWA dollars as “FHWA-funded,” the study team did so as well (some of the funding on these contracts was state dollars).

C. Utilization by Racial, Ethnic and Gender Group

Figure 4-3 provides information about the race, ethnicity and gender of certified DBEs receiving MoDOT work on FHWA- and state-funded highway contracts. Figure 4-3 shows:

- The number of prime contracts and subcontracts awarded to the group (e.g., 4,912 FHWA-funded prime contracts and subcontracts to white women-owned firms);
- The combined dollars of prime contracts and subcontracts going to the group (e.g., \$409 million to white women-owned firms); and
- The percentage of combined contract dollars for the group (e.g., white women-owned firms received 9.7 percent of total FHWA-funded contract dollars).

FHWA-funded contracts. As shown in Figure 4-3 for FHWA-funded contracts, white women-owned firms (WBEs) received the largest number of prime contracts and subcontracts, the most dollars and the highest share of dollars out of all MBE/WBE groups.

Among minority-owned DBEs, Native American-owned firms (566) and African American-owned firms (614) received the largest number of prime contracts and subcontracts. Native American-owned firms (\$77 million) and African American-owned firms (\$60 million) also received the most dollars of FHWA-funded contracts for the minority-owned DBEs. Combined, Asian-Pacific American-, Subcontinent Asian American- and Hispanic American-owned firms received 0.5 percent of the dollars of FHWA-funded contracts.

State-funded contracts. White women-owned firms (5.6%) accounted for most of the total participation of the DBE utilization on state-funded contracts.

Figure 4-3.

DBE share of MoDOT prime contracts and subcontracts for FHWA- and state-funded contracts, July 2013–June 2018

	FHWA			State		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs						
African American-owned	614	\$ 60,274	1.4 %	1	\$ 14	0.0 %
Asian-Pacific American-owned	43	2,379	0.1	2	184	0.5
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0
Hispanic American-owned	154	14,922	0.4	0	0	0.0
Native American-owned	566	77,067	1.8	8	237	0.7
WBE (white women-owned)	4,912	409,366	9.7	42	1,967	5.6
Total MBE/WBE	6,289	\$ 564,008	13.4 %	53	\$ 2,402	6.8 %
Majority-owned	32	453	0.0	0	0	0.0
Total DBEs	6,321	\$ 564,461	13.4 %	53	\$ 2,402	6.8 %
Non-DBEs						
	9,031	\$ 3,656,632	86.6 %	140	\$ 32,831	93.2 %
Total	15,352	\$ 4,221,094	100.0 %	193	\$ 35,233	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

D. Contracts With and Without DBE Contract Goals

Figure 4-4 shows DBE participation in combined FHWA- and state-funded MoDOT contracts with DBE contract goals and without goals. (The “without goals” results include all state-funded and some FHWA-funded contracts.) Keen Independent’s analysis shows higher DBE utilization on contracts with DBE contract goals than those without contract goals.

- 13.5 percent of contract dollars went to DBEs on contracts where MoDOT set a DBE contract goal; and
- Without DBE contract goals, DBE participation was 11.8 percent (shown in Figure 4-4). Limiting the analysis to just FHWA-funded contracts without DBE contract goals, DBEs received 12.3 percent of contract dollars (not shown in Figure 4-4).

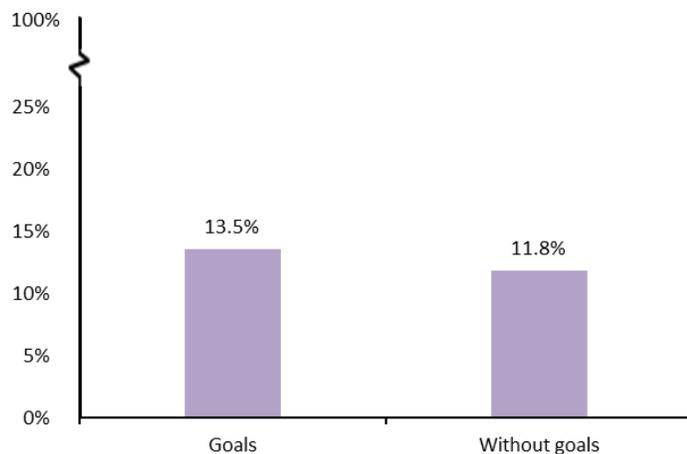
Figure 4.4
DBE share of dollars for MoDOT
FHWA- and state-funded highway
contracts with and without DBE
contract goals, July 2013–June 2018

Note:

Number of contracts/subcontracts analyzed is 13,251 with DBE contract goals and 2,294 without contract goals.

Source:

Keen Independent from data on MoDOT and LPA contracts, July 2013–June 2018.



E. Trends During the Study Period

Figure 4-5 on the following page examines FHWA-funded contract dollars going to DBEs on FHWA-funded contracts for the first two years of the study period (FY 2014 through FY 2015) and the final three years of the study period (FY 2016 through FY 2018).

DBE participation was 12.0 percent for contracts awarded from FY 2014 through FY 2015. It increased to 14.3 percent for FY 2016 through FY 2018. This increase was associated with an increase in utilization of white women-owned and African American-owned firms. Figure 4-5 shows these results.

The increase in DBE participation between the first two years and final three years of the study period was largely due to an increase in participation of white women-owned firms. Utilization for this group was 8.4 percent of MoDOT contract dollars from FY 2014 through FY 2015. For FY 2016 through FY 2018, white women-owned firms obtained 10.6 percent of contract dollars.

Utilization of African American-owned firms increased 0.7 percentage point between periods. Among other MBE groups, utilization decreased for Hispanic American- and Native American-owned firms, from 0.4% to 0.3%, and from 2.1% to 1.6%, respectively.

Figure 4-5.

DBE share of MoDOT prime contracts and subcontracts for FHWA contracts with and without DBE contract goals, July 2013–June 2015 and July 2015–June 2018

	FY 2014-2015			FY 2016-2018		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs						
African American-owned	241	\$ 16,776	1.0 %	373	\$ 43,498	1.7 %
Asian-Pacific American-owned	13	510	0.0	30	1,869	0.1
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0
Hispanic American-owned	56	6,678	0.4	98	8,244	0.3
Native American-owned	251	36,329	2.1	315	40,738	1.6
WBE (white women-owned)	1,781	144,431	8.4	3131	264,935	10.6
Total MBE/WBE	2,342	\$ 204,725	12.0 %	3,947	\$ 359,284	14.3 %
Majority-owned	19	204	0.0	13	249	0.0
Total DBEs	2,361	\$ 204,929	12.0 %	3,960	\$ 359,533	14.3 %
Non-DBEs						
	3,781	\$ 1,506,114	88.0 %	5,250	\$ 2,150,519	85.7 %
Total	6,142	\$ 1,711,042	100.0 %	9,210	\$ 2,510,052	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

F. Construction and Engineering Contracts

Figure 4-6 presents DBE participation for FHWA-funded highway construction contracts and engineering-related contracts. Overall, DBE participation was higher on engineering contracts (16.2%) than construction related contracts (13.2%). Note that construction contracts and engineering contracts were identified in this analysis based on work performed by the prime contractor and includes all of the subcontractors involved in the project (even though some engineering firms might work on a construction contract and vice versa).

Figure 4-6.

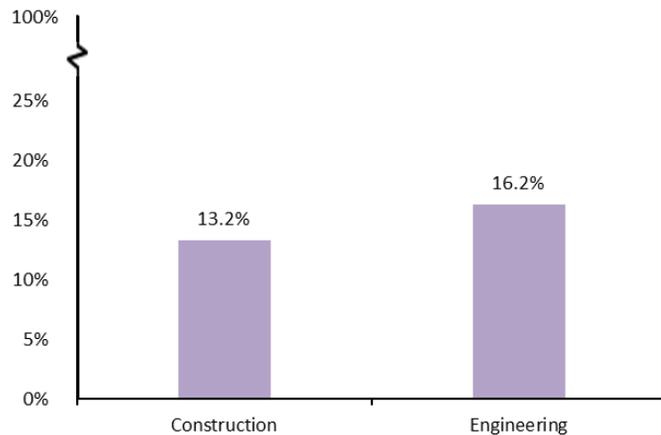
DBE share of dollars for FHWA-funded construction and engineering contracts, July 2013–June 2018

Note:

Number of contracts/subcontracts analyzed is 13,256 for construction and 2,096 for engineering-related contracts.

Source:

Keen Independent from data on MoDOT and LPA contracts, July 2013–June 2018.



G. MoDOT Contracts and Local Public Agency (LPA) Contracts

Keen Independent also examined results for MoDOT contracts and local public agency (LPA) contracts. In terms of dollars, most of the FHWA-funded highway contracts examined in this availability study were for MoDOT projects (\$3.5 billion). LPA contracts totaled \$701 million.

As shown in Figure 4-7, DBE participation was higher on LPA contracts than MoDOT contracts. All of the LPA contracts had FHWA funding and often had DBE contract goals applied.

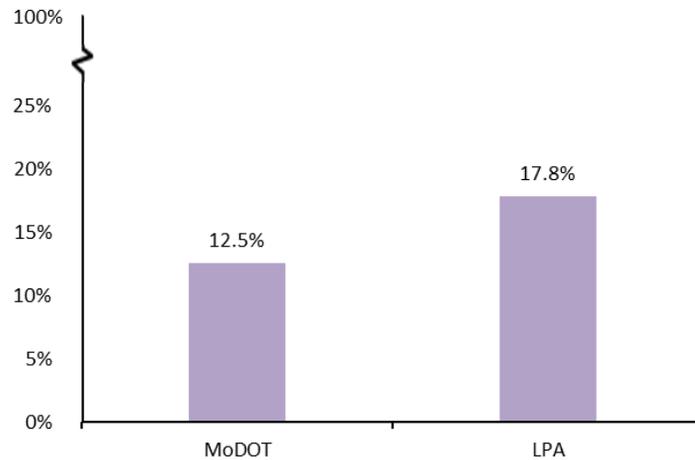
Figure 4-7.
DBE share of dollars for MoDOT
and LPA contracts,
July 2013–June 2018

Note:

Number of contracts/subcontracts analyzed is 10,347 for MoDOT contracts and 5,005 for LPA contracts.

Source:

Keen Independent from data on MoDOT and LPA contracts, July 2013–June 2018.

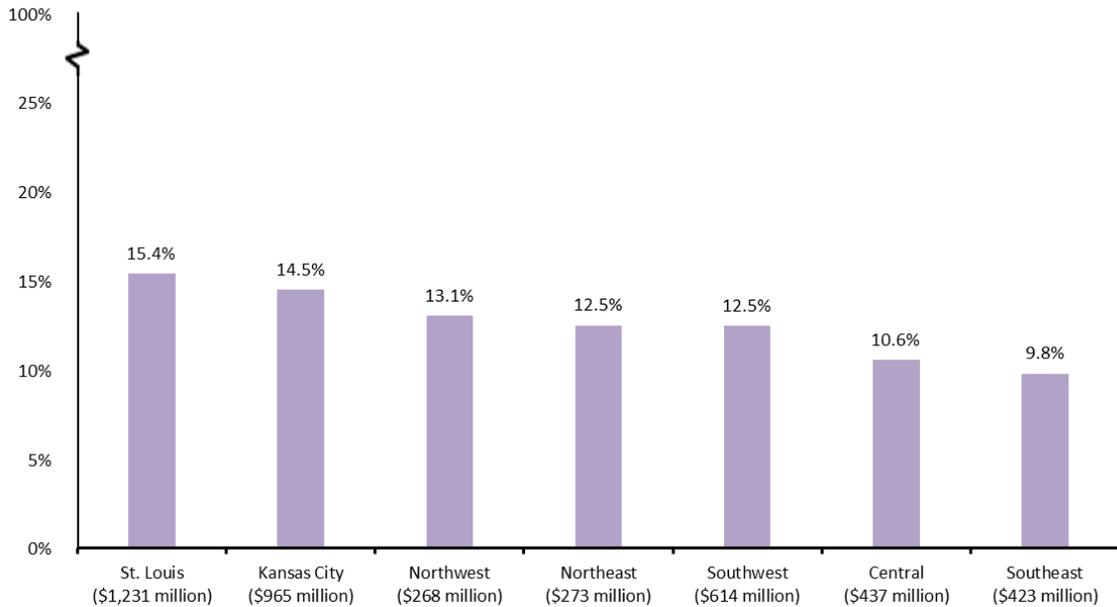


H. MoDOT Districts

Keen Independent examine DBE utilization in FHWA-funded contracts in each MoDOT district. Figure 4-8 examines combined FHWA contract dollars going to DBEs by contract location. DBEs has the largest participation in contracts with locations in Saint Louis (15.4%) and Kansas City (14.5%), followed by Northwest district (13.1%), Northeast district (12.5%), Southwest district (12.5%), Central district (10.6%) and Southeast district (9.8%).

Figure 4-8.

DBE share of dollars for FHWA-funded contracts by MoDOT district, July 2013-June 2018



Note: Number of contracts/subcontracts analyzed is: Saint Louis (4,369), Kansas City (2,354), Northwest (1,142), Northeast (1,137), Southwest (2,449), Central (1,940) and Southeast (1,714).

Source: Keen Independent from data on MoDOT and LPA contracts, July 2013–June 2018.

I. Prime Contracts and Subcontracts

Keen Independent separately examined the percentage of prime contract and subcontract dollars going to DBEs on FHWA-funded highway contracts. Figure 4-9 presents results of this research. Results combine MoDOT and LPA construction and engineering-related prime contracts and subcontracts.

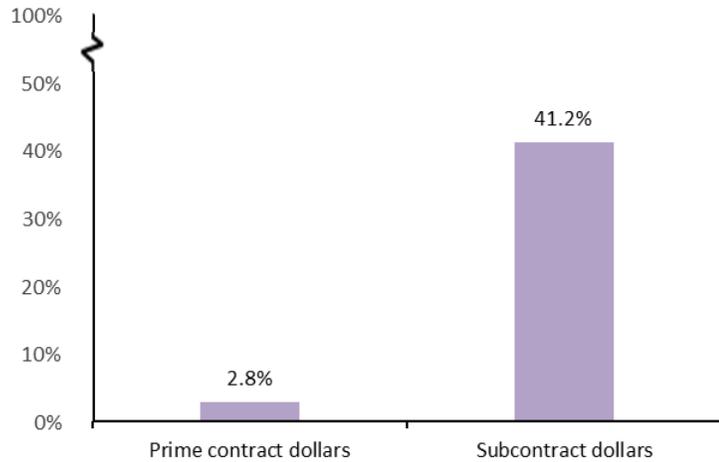
Prime contracts. DBEs accounted for 2.8 percent of total prime contract dollars. Note that the study team analyzed dollars going to prime contractors based on amounts retained by prime contractors after subtracting the value of subcontracts (to avoid double-counting subcontract dollars).

Subcontracts. Subcontracts accounted for about one-third of the total contract dollars examined in this study. DBEs obtained about 41 percent of MoDOT subcontract dollars on FHWA-funded highway contracts.

Figure 4-9.
DBE share of dollars for
FHWA-funded prime contracts and
subcontracts, July 2013-June 2018

Note:
 Number of prime contracts analyzed is 3,257.
 Number of subcontracts analyzed is 12,095.

Source:
 Keen Independent from data on MoDOT and
 LPA contracts, July 2013–June 2018.



J. Prime Contracts by Size of Procurement

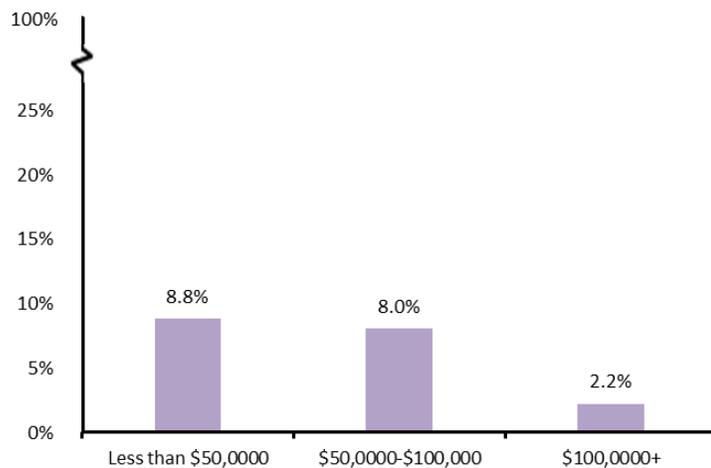
Keen Independent examined whether DBE participation as prime contractors and consultants varied by size of procurement in FHWA-funded contracts. The study team reviewed the number and dollars of FHWA-funded contracts for those less than \$50,000, between \$50,000 and \$100,000, and \$100,000 and above. (These data do not include subcontracts.)

- DBE participation as prime contractors and vendors was highest for contracts less than \$50,000 (8.8%).
- DBE participation as prime contractors and vendors was 8.0 percent for contracts between \$50,000 and \$100,000.
- For purchases of at least \$100,000, DBE utilization was 2.2 percent.

Figure 4-10.
DBE share of dollars for
FHWA-funded contracts by size,
July 2013 to June 2018

Note:
 Number of prime contracts analyzed is
 28 for prime contracts under \$50,000, 31 for
 contracts between \$50,000 and \$100,000,
 and 171 for contracts of \$100,000 or more.

Source:
 Keen Independent from data on MoDOT and
 LPA contracts, July 2013–June 2018.



CHAPTER 5.

Marketplace Conditions

Keen Independent collected qualitative information from business owners and others about conditions in the Missouri highway contracting marketplace. A focus was whether there is a level playing field for minority- and women-owned businesses working in the industry.

Chapter 5 synthesizes results from questions about marketplace barriers included in the availability survey with Missouri businesses (see Appendix D), information gathered via in-depth interviews and focus groups with business owners, trade associations and others (see Appendix F). Keen Independent also reviewed insights about marketplace conditions provided in other disparity studies in Missouri (see Appendix G).

Chapter 5 is organized in eight parts:

- A. Economic conditions in the Missouri marketplace;
- B. Working on projects with Missouri Department of Transportation or other public agencies;
- C. Contractor-subcontractor relationships in the Missouri marketplace;
- D. Whether there is a level playing field for minority- and women-owned firms in the Missouri marketplace;
- E. Insights regarding business assistance programs and certification;
- F. Any other insights or recommendations for Missouri Department of Transportation and local agencies;
- G. Quantitative analysis of barriers to doing business in the Missouri marketplace; and
- H. Summary.

Keen Independent briefly summarizes results below.

A. Economic Conditions in the Missouri Marketplace

The Keen Independent study team interviewed a cross-section of large and small construction, engineering and other firms involved in the Missouri highway contracting industry. The study team also interviewed trade associations and business assistance providers serving the industry. Although some interviewees indicated cautious optimism about economic conditions in the Missouri marketplace, some reported slowing highway work and an increasingly competitive business environment.

“50 men are going after the same rabbit,” was how one interviewee described the competition in the industry. An industry association representative described Missouri’s construction industry as “bipolar,” largely due to a variability in state tax funding for roads and bridges.

In addition, some business owners reported that their businesses had not fully recovered from the economic downturn. One business owner reported that revenue has decreased since 2016, with a “slip in ‘17, a cliff in ‘18 and no light at the end of the tunnel in ‘19.” Some businesses, however, were experiencing steady growth.

B. Working on Projects with Missouri Department of Transportation or Other Public Agencies

Business owners, trade association representatives and others had many comments about working with MoDOT and other public agencies, or trying to obtain work.

- Consistent with their comments about the Missouri marketplace, some interviewees perceived reduced work opportunities with MoDOT. One business owner, for example, indicated not seeing the “\$15 million contracts” that MoDOT once let.
- Some businesses reported that MoDOT does a good job of posting requests for bids/proposals on its website, as well as disseminates information via eblasts, bulletins and other means.

Although business owners tended to know about how MoDOT posted requests for bids and proposals, some business owners reported that it is difficult to get “ahead” of MoDOT and other public sector bidding opportunities and that larger firms are often privy to those opportunities before that information is available to the public. Many reported relying on contacts with MoDOT staff and other primes and subs to keep informed of upcoming opportunities.

- Several business owners and representatives indicated that the “paperwork” required as part of MoDOT’s procurement is cumbersome and particularly challenging for minority- and women-owned businesses that are often small businesses or new to the Missouri marketplace.
- Some interviewees reported that MoDOT primarily works with firms that it has worked with in the past, placing businesses with no previous experience with MoDOT at a disadvantage. Others mentioned that small businesses are often overlooked by MoDOT and other public agencies because they are perceived as “not capable.”
- A few interviewees discussed large project sizes that are not conducive to bidding by small businesses.

There were also a number of positive comments about MoDOT from businesses across the state.

C. Contractor-Subcontractor Relationships in the Missouri Marketplace

Business owners and trade association representatives described typical contractor-subcontractor relationships in the industry.

- Some interviewees reported that subcontractors and subconsultants are at a disadvantage when working with a prime. One sub indicated fear of disputes when working with a prime, because those situations can be reputation-damaging. Another reported being “blacklisted” by a prime. Others reported positive experiences when serving as a sub to a prime.
- Many general contractors reported difficulty finding subs, despite their outreach. Subcontractors had different perspectives. One subcontractor, for example, explained that if primes would take a “long” view and offer a DBE a larger part of a contract, that sub would make herself available for other projects down the road.
- One business representative reported giving DBEs “a chance,” but knew other firms that utilize DBEs only when a contract goal is in place. An industry association representative reported that the association wants to be the solution of the diversity problem in Missouri and that they encourage the firms represented to include DBE firms in public contracts.
- Some of the subcontractors’ comments about prime contractors pertained to slow payment for work that could damage the company. Many had issues with prompt payment from primes of MoDOT that can extend well beyond 30 days.

D. Whether There is a Level Playing Field for Minority- and Women-Owned Firms in the Missouri Marketplace

Many interviewees reported on a wide range of barriers that women- and minority-owned businesses face in the Missouri marketplace. Other interviewees agreed that there were barriers, but thought they affected all businesses, or all small companies, not just MBEs and WBEs.

Comments from minority and female business owners included examples of denial or unfair rejection of bids to evidence of a “good ol’ boy” network that is difficult to break through. Many perceived that they did not have the same opportunities to learn about and compete for work as majority-owned companies. Examples of comments include the following:

- An African American owner of a DBE construction firm commented, “I’m so tired of hearing [general contractors] say it costs more money to do business with minority- and women-owned companies. It costs less because they shop the bids they receive.” One white female business owner commented that although there have been efforts to level the playing field, DBEs are grouped in the same category in bids for a project so that they are competing against each other.

- Many minority and women business owners reported double standards and stereotyping, or facing a “male-dominated” industry. Some DBEs reported having to “prove themselves” or were mistrusted. One commented that “there’s a perception out there that DBEs put out less than quality work.”
- Many minority and women business owners reported challenges with access to financing and bonding, and fair pricing of materials and equipment. For example, all focus group participants in St. Louis raised their hands “yes,” when asked if they had ever been denied a business loan. Those participants included African American, Hispanic American and white female business owners. They cited unequal access to credit because of race and gender.

As another example, an African American business owner who faced higher pricing than others for equipment rental reported being told that this was because the vendor did not have a “good experience with MBE/WBEs.” Another African American business owner reported on a stereotype held by suppliers: “Black folks don’t pay and DBEs don’t pay so they have to put [additional] markup on the materials.”

- Most business owners were aware of and had negative perceptions of closed “good ol’ boy” networks and their impact on minorities, women and small businesses in the industry. One African American owner of a DBE construction firm reported, “If you aren’t in their system then you don’t get [any] work.”

E. Insights Regarding Business Assistance Programs and Certification

Some business owners championed DBE goal setting and reported that there is little DBE participation when no goals are in place. For example, one DBE professional services firm reported that when there are no DBE goals on projects, “participation drops.” She explained, “We think we’re on a level playing field, but when push comes to shove, we’re not.”

Participation in MoDOT contracts made possible through the DBE Program was important to many DBEs. One DBE commented, “DOT work is what we always wanted to do DBE certification has allowed us to [be part of major projects] and expand our experience.”

However, some business owners reported challenges certifying as a DBE, largely due to the amount of paperwork or privacy issues. One business owner reported that as a DBE, a firm is “niched,” making prime contracting limited. Others reported negative stereotypes associated with DBE-certified firms.

F. Any Other Insights or Recommendations for Missouri Department of Transportation and Local Agencies

Business owners and representatives gave recommendations to MoDOT and other local agencies. Some reported positively about MoDOT “becoming more aware of [the need to be inclusive].” One African American business owner reported that MoDOT “is making strides” to improve monitoring of DBE goal compliance, however there is “much more to be done.”

Recommendations from interviewees include:

- Maintain updated DBE lists;
- Unbundle projects to help DBEs competing with large businesses;
- Guarantee prompt payment;
- Rethink contract goals to include small businesses;
- Improve business assistance opportunities for DBEs (back-office training, for example); and
- Develop a “whistle blower” program when someone sees abuse.

A representative of a supportive services provider reported that DBEs need more opportunities to work directly with MoDOT instead of usually going through a prime. She added that any path that offers a “clear direction and pathway to goal attainment supports the DBE as well as MoDOT.”

G. Quantitative Analysis of Barriers to Doing Business in the Missouri Marketplace

Keen Independent’s availability surveys with Missouri businesses included questions about whether firms had experienced barriers or difficulties associated with three aspects:

- Access to capital and bonding, insurance, prequalification and project size;
- Learning about bid opportunities; and
- Receipt of payment.

In total, construction firms answered “yes or no” questions about 12 types of barriers, engineering-related businesses answered questions about 11 types of barriers and materials suppliers answered questions about nine types of barriers. (Questions that were not asked for an industry are shown as “N/A” in Figure 5-1 on the following page.) Appendix D provides detailed results. Results were consistent with the anecdotal information from in-depth interviews and focus groups.

Figure 5-1 shows those survey questions where substantially more minority- or women-owned firms reported difficulties than majority-owned firms. For example, substantially more minority-owned construction and engineering firms reported difficulty obtaining lines of credit or loans than found for majority-owned firms. This was also evident for minority- and women-owned materials suppliers (MBE and WBE materials suppliers are combined because of the relatively small number of survey responses in this sector).

Viewing results across the types of marketplace barriers examined, substantially more minority-owned construction, engineering-related and materials supply companies reported difficulties than were found for majority-owned firms. This was evident for minority-owned firms for eight of the 12 types of barriers in the survey of construction firms and for nine of the 11 types of barriers in the survey of engineering-related companies. This pattern was also found for minority- and women-owned materials suppliers and white women-owned engineering firms.

Although responses to some barriers questions by white women-owned construction firms were similar to majority-owned companies, there were still substantially more WBEs than majority-owned firms reporting difficulty obtaining bonds, learning about subcontract opportunities and being paid by prime contractors. Although the number of white women-owned construction firms reporting difficulties being prequalified and responding to insurance requirements were relatively small, a substantially greater share of WBEs reported these difficulties than majority-owned construction firms.

Figure 5-1.

Barriers for which substantially more minority- or women-owned than majority-owned businesses reported difficulty among firms in the Missouri highway contracting industry

Potential barrier	Construction		Engineering		Materials suppliers
	MBEs	WBEs	MBEs	WBEs	MBE/WBEs
Obtaining lines of credit or loans	Yes		Yes	Yes (< 10 %)	Yes
Obtaining bonds	Yes	Yes	N/A	N/A	Yes
Being prequalified	Yes	Yes (< 10 %)	Yes	Yes (< 10 %)	N/A
Insurance requirements	Yes	Yes (< 10 %)		Yes	Yes
Large size of projects			Yes	Yes	Yes
Learning about bid opportunities directly with MoDOT	Yes		Yes	Yes	Yes
Learning about bid opportunities with cities or counties in Missouri	Yes		Yes	Yes	Yes
Learning about subcontracting opportunities in Missouri	Yes	Yes	Yes	Yes	Yes
Receiving payment from MoDOT			Yes		Yes
Receiving payment from prime contractors	Yes	Yes	Yes	Yes	N/A
Receiving payment from other customers					
Obtaining final approval			Yes (< 10 %)		N/A

Note: N/A means that question was not asked.

Substantial difference means that ratio of the percentage of “yes” answers for MBEs or WBEs to “yes” answers for majority-owned firms was greater than 1.2. Where there is no “yes” or “N/A” in the table, the result for that question for that group was not substantially different from the result for that question for majority-owned firms.

Note of “< 10 %” means that there was a substantial difference for that group but less than 10% of respondents in that group said that they experienced difficulties related to that factor.

Source: Keen Independent Research based on 2019 Availability Survey data.

H. Summary

As discussed in this Chapter and supporting appendices, there is considerable evidence that the Missouri highway construction and engineering industry is highly competitive and that it is difficult for small businesses to compete for MoDOT and other public sector work. Slow payment and barriers accessing capital were frequently cited as issues affecting newer and smaller companies.

Many interviewees, including some of the trade association representatives and white male business owners participating in the research, agreed that there was not a level playing field for minority- and women-owned businesses in the industry. Owners of DBE-certified firms indicated that DBE contract goals and other business assistance was important in addressing the additional barriers that minority- and women-owned small businesses face working in the industry. These results are consistent with a higher percentage of minority- and women-owned firms reporting that they experience specific types of difficulties in the Missouri marketplace (based on responses to availability survey marketplace questions). In addition, input from business owners and others in this Availability Study mirrors the anecdotal information reported in other disparity studies in Missouri.

Appendix F provides comments about a wide range of topics affecting the industry from business owners and business representatives, trade association representatives and others who are knowledgeable about highway contracting in Missouri. Appendix G synthesizes anecdotal information from other disparity studies in the state.

APPENDIX A.

Definition of Terms

Appendix A provides explanations and definitions useful to understanding the 2019 DBE Availability Study. The following definitions are only relevant in the context of this report.

Availability analysis. The availability analysis examines the number of minority-, women-owned and majority-owned businesses ready, willing, and able to perform transportation-related construction and engineering work for MoDOT or local agencies in MoDOT.

“Availability” is often expressed as the percentage of contract dollars that might be expected to go to minority- or women-owned firms or DBEs based on analysis of the specific type, location, size and timing of each MoDOT prime contract and subcontract and the relative number of minority- and women-owned firms available for that work.

Business. A business is a for-profit enterprise, including all its establishments (synonymous with “firm” and “company”).

Business establishment. A business establishment (or simply, “establishment”) is a place of business with an address and working phone number. One business can have many business establishments.

Business listing. A business listing is a record in the Dun & Bradstreet (D&B) database (or other database) of business information. A D&B record is a “listing” until the study team determines it to be an actual business establishment with a working phone number.

Code of Federal Regulations or CFR. Code of Federal Regulations (“CFR”) is a codification of the federal agency regulations. An electronic version can be found at <http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>.

Contract. A contract is a legally binding agreement between the seller of goods or services and a buyer.

Contract element. A contract element is either a prime contract or subcontract that the study team included in its analyses.

Consultant. A consultant is a business performing professional services contracts.

Contractor. A contractor is a business performing construction contracts.

Controlled. Controlled means exercising management and executive authority for a business.

Disadvantaged Business Enterprise (DBE). A small business that is 51 percent or more owned and controlled by one or more individuals who are both socially and economically disadvantaged according to the guidelines in the Federal DBE Program (49 CFR Part 26). Members of certain racial and ethnic groups identified under “minority-owned business enterprise” in this appendix may meet the presumption of social and economic disadvantage. Women are also presumed to be socially and economically disadvantaged. Examination of economic disadvantage also includes investigating the three-year average gross revenues and the business owner’s personal net worth (at the time of this report, a maximum of \$1.32 million excluding equity in the business and primary personal residence).

Some minority- and women-owned businesses do not qualify as DBEs because of gross revenue or net worth limits.

A business owned by a non-minority male may also be certified as a DBE on a case-by-case basis if the enterprise meets its burden to show it is owned and controlled by one or more socially and economically disadvantaged individuals according to the requirements in 49 CFR Part 26.

Dun & Bradstreet (D&B). D&B is the leading global provider of lists of business establishments and other business information (see www.dnb.com). Hoover’s is the D&B company that provides these lists. Obtaining a DUNS number and being listed by D&B is free to listed companies; it does not require companies to pay to be listed in its database.

Engineering industry. For purposes of this study, “engineering industry” is used to describe professional services including engineering but also surveying, transportation planning, environmental consulting, construction management and certain related services.

Enterprise. An enterprise is an economic unit that is a for-profit business or business establishment, not-for-profit organization or public sector organization.

Establishment. See “business establishment.”

Federal Disadvantaged Business Enterprise (DBE) Program. Federal DBE Program refers to the Disadvantaged Business Enterprise Program established by the United States Department of Transportation after enactment of the Transportation Equity Act for the 21st Century (TEA-21) as amended in 1998. The regulations for the Federal DBE Program are set forth in 49 CFR Part 26.

Federal Highway Administration (FHWA). The FHWA is an agency of the United States Department of Transportation that works with state and local governments to construct, preserve, and improve the National Highway System, other roads eligible for federal aid, and certain roads on federal and tribal lands.

Firm. See “business.”

Federally-funded contract. A federally-funded contract is any contract or project funded in whole or in part (a dollar or more) with United States Department of Transportation financial assistance, including loans. As used in this study, it is synonymous with “USDOT-funded contract.”

Industry. An industry is a broad classification for businesses providing related goods or services.

Local agency. A local agency is any city, county, town, tribal government, regional transportation commission or other local government receiving money through MoDOT.

Majority-owned business. A majority-owned business is a for-profit business that is not owned and controlled by minorities or women (see definition of “minorities” below).

MBE. Minority-owned business enterprise. See minority-owned business.

Minorities. Minorities are individuals who belong to one or more of the racial/ethnic groups identified in the federal regulations in 49 CFR Section 26.5:

- Black Americans (or “African Americans” in this study), which include persons having origins in any of the black racial groups of Africa.
- Hispanic Americans, which include persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race.
- Native Americans, which include persons who are American Indians, Eskimos, Aleuts or Native Hawaiians.
- Asian-Pacific Americans, which include persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), Republic of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia or Hong Kong.
- Subcontinent Asian Americans, which include persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.

Minority-owned business (MBE). An MBE is a business that is at least 51 percent owned and controlled by one or more individuals that belong to a minority group. Minority groups in this study are those listed in 49 CFR Section 26.5. For purposes of this study, a business need not be certified as such to be counted as a minority-owned business. Businesses owned by minority women are also counted as MBEs in this study (where that information is available). In this study, “MBE-certified businesses” are those that have been certified by the State of MoDOT as a minority-owned company.

Missouri Department of Transportation (MoDOT). MoDOT is the steward of the State of Missouri’s transportation system. MoDOT is responsible for building, maintaining, and operating the state highway system. In addition, MoDOT works with partners to maintain and improve local transportation infrastructure. MoDOT provides other transportation services related to Missouri’s roads and bridges, railways, public transportation services, transportation safety and motor carrier regulation.

Missouri Office of Equal Opportunity (OEO). The Office of Equal Opportunity is the certification authority for certification of minority- and women-owned firms in Missouri. The OEO assists women and minorities with developing opportunities to contract with the state by providing access to education and outreach as well as matchmaking activities for certified businesses.

Missouri Regional Certification Committee (MRCC). The MRCC is responsible for administering the Disadvantaged Business Enterprise Program and is comprised of seven agencies: Missouri Department of Transportation (MoDOT), Bi-State Development/Metro, St. Louis Lambert International Airport - Business Development aka City of St. Louis, City of Kansas City, East West Gateway Council of Government, Kansas City Area Transit Authority, and Mid America Regional Council.

North American Industry Classification System (NAICS) codes. NAICS codes identify the primary line of business of a business enterprise. See <http://www.census.gov/epcd/www/naics.html>.

Non-DBEs. Non-DBEs are firms that are not certified as DBEs, regardless of the race/ethnicity or gender of the owner.

Non-response bias. Non-response bias occurs when the observed responses to a survey question differ from what would have been obtained if all individuals in a population, including non-respondents, had answered the question.

Owned. Owned indicates at least 51 percent ownership of a company. For example, a “minority-owned” business is at least 51 percent owned by one or more minorities.

Potential DBE. A potential DBE is a minority- or woman-owned business that appears that it could be DBE-certified (and is not currently DBE-certified) based on revenue requirements specified as part of the Federal DBE Program.

Prime consultant. A prime consultant is a professional services firm that performs a prime contract for an end user, such as MoDOT.

Prime contract. A prime contract is a contract between a prime contractor or a prime consultant and the project owner, such as MoDOT.

Prime contractor. A prime contractor is a construction firm that performs a prime contract for an end user, such as MoDOT.

Project. A project refers to a MoDOT or local agency transportation construction and/or engineering endeavor. A project could include one or multiple prime contracts and corresponding subcontracts.

Race- and gender-conscious measures. Race- and gender-conscious measures are programs in which businesses owned by some minority groups or women may participate but majority-owned firms typically may not. A DBE contract goal is one example of a race- and gender-conscious measure.

Note that the term is a shortened version of “race-, ethnicity- and gender-conscious measures.” For ease of communication, the study team has truncated the term to “race- and gender-conscious measures.”

Race- and gender-neutral measures. Race- and gender-neutral measures apply to businesses regardless of the race/ethnicity or gender of firm ownership. Race- and gender-neutral measures may include assistance in overcoming bonding and financing obstacles, simplifying bidding procedures, providing technical assistance, establishing programs to assist start-up firms, and other methods open to all businesses or any disadvantaged business regardless of race or gender of ownership. A broader list of examples can be found in 49 CFR Section 26.51(b).

Note that the term is more accurately “race-, ethnicity- and gender-neutral” measures. However, for ease of communication, the study team has shortened the term to “race- and gender-neutral measures.”

Relevant geographic market area. The relevant geographic market area is the geographic area in which the businesses receiving most MoDOT and local agency contracting dollars are located. The relevant geographic market area is also referred to as the “local marketplace.” Case law related to race- and gender-conscious programs requires availability analyses to focus on the “relevant geographic market area.”¹

SBA 8(a). SBA 8(a) is a U.S. Small business Administration business assistance program for small disadvantaged businesses owned and controlled by at least 51 percent socially and economically disadvantaged individuals.

Small business. A small business is a business with low revenues or size (based on revenue or number of employees) relative to other businesses in the industry. “Small business” does not necessarily mean that the business is certified as such.

Small Business Enterprise (SBE). A firm certified as a small business according to the size criteria of the certifying agency.

Small Business Administration (SBA). The SBA refers to the United States Small Business Administration, which is an independent agency of the United States government that assists small businesses.

Subconsultant. A subconsultant is a professional services firm that performs services for a prime consultant as part of the prime consultant’s contract for a customer such as MoDOT.

Subcontract. A subcontract is a contract between a prime contractor or prime consultant and another business selling goods or services to the prime contractor or prime consultant as part of the prime contractor’s contract for a customer such as MoDOT.

¹ See, e.g., *Croson*, 448 U.S. at 509; 49 CFR Section 26.35; *Rothe*, 545 F.3d at 1041-1042; *N. Contracting*, 473 F.3d at 718, 722-23; *Western States Paving*, 407 F.3d at 995.

Subcontract goals program. A program in which a public agency sets a percent goal for participation of DBEs, MBE/WBEs, ESBs, small businesses or another group on a contract. These programs typically require that a bidder either meet the percentage goal with members of the group or show good faith efforts to do so as part of its bid or proposal.

Subcontractor. A subcontractor is a construction firm that performs services for a prime contractor as part of a larger project.

Subrecipient. A subrecipient is a local agency receiving financial assistance from the United States Department of Transportation, passed through MoDOT.

Supplier. A supplier is a firm that sells supplies to a prime contractor as part of a larger project (or in some cases sells supplies directly to MoDOT).

United States Department of Transportation (USDOT). USDOT refers to the United States Department of Transportation, which includes the Federal Highway Administration, the Federal Transit Administration, the Federal Aviation Administration and the Federal Rail Administration. Note that the Federal DBE Program does not apply to contracts solely using funds from the Federal Rail Administration (at the time of this report).

Utilization. Utilization refers to the percentage of total contract dollars going to a specific group of businesses (for example, DBEs).

WBE. Woman-owned business enterprise. See women-owned business.

Women-owned business (WBE). A WBE is a business that is at least 51 percent owned and controlled by one or more individuals that are non-minority women. A business need not be certified as such to be included as a WBE in this study. For this study, businesses owned and controlled by minority women are counted as minority-owned businesses. In this study, a “WBE-certified businesses” is one certified as a woman-owned firm by the State of Missouri.

APPENDIX B.

Contract Data Collection

Keen Independent compiled data about MoDOT and local agency transportation contracts and the firms used as prime contractors and subcontractors on those contracts. Keen Independent sought sources of data that consistently included information about prime contractors and subcontractors on FHWA-funded and state-funded contracts, regardless of firm ownership or DBE status. The study team compiled data on construction, engineering and other transportation-related contracts. Data collection included contracts awarded by local agencies receiving funds through MoDOT's Local Public Agency.

Appendix B describes the study team's utilization data collection processes in four parts:

- A. MoDOT contract data;
- B. Local public agency contract data;
- C. MoDOT and External Stakeholder Group (DBE Focus Group) review; and
- D. Data limitations.

A. MoDOT Contract Data

Keen Independent collected data on highway-related construction and engineering contracts that MoDOT awarded during the July 2013 through June 2018 study period. The study team examined 10,347 FHWA- and 193 state-funded contracts awarded by MoDOT that totaled \$3.6 billion.

MoDOT External Civil Rights Division databases were the primary sources of prime and subcontract information for FHWA-funded and state-funded construction and engineering services contracts. These sources identified dollars going to prime contractors and subcontractors for each project.

MoDOT FHWA- and state-funded construction contract data. MoDOT External Civil Rights Division uses AASHTOWare Projects CRL and Site Manager to maintain information about contract awards and payments to prime contracts and subcontracts (DBE and non-DBE).

Fields in the prime and subcontract database include:

- Contract ID;
- District;
- County;
- Project number;
- Description;
- Vendor ID;
- Vendor name (prime);
- DBE type;
- Total bid amount;
- Current contract (amount);
- Funding indicator;
- DBE goal percent;
- Award date;
- Completion date;
- Vendor name (subcontractor);
- DBE type;
- Subcontract amount; and
- Original commitment.

MoDOT FHWA- and state-funded consulting data. MoDOT External Civil Rights Division also uses AASHTOWare Projects CRL to maintain certain data about prime consultants and DBE commitments for engineering and related. Keen Independent supplemented the information MoDOT provided by reviewing the contract PDFs saved in DocuSign or SharePoint (about 420 PDFs in total). Keen Independent was able to obtain revised prime contract amounts and a list of DBE and non-DBE firms related to the contract. Fields in the prime contract data include:

- Consultant (name);
- MOU number;
- FMS work ID;
- Job number;
- County;
- Authorization date;
- Total of contract cost;
- Unexpected contract cost;
- Contract type;
- DBE goal; and
- Professional services (description).

The contract PDFs saved in DocuSign or SharePoint included DBE goal, DBE participation, Subconsultants and “Consultant Fee Estimate” that provide further detail such as work description and amounts for all subconsultants.

B. Local Public Agency Contract Data

Keen Independent also collected data on highway construction and engineering contracts that local agencies awarded during the July 2013 through June 2018 study period. The study team examined 5,005 FHWA-funded contracts that LPAs awarded, which totaled \$702 million.

The primary sources of information for LPA construction and engineering services contracts were MoDOT External Civil Rights Division databases and subcontract data collected directly from LPAs and prime contractors.

LPA FHWA-funded prime construction contract data. MoDOT Local Public Agency maintains prime contract data through the Statewide Management System (SMS). Fields in the prime contract data include:

- District;
- LPA (name);
- Federal project (number);
- Prefix (project);
- Award date;
- Project description;
- Change order amount;
- DBE goal;
- Contractor (prime);
- County; and
- Original contract amount.

LPA FHWA-funded subcontract construction data. Keen Independent compiled information about subcontracts involved in large construction procurements. The study team collected subcontract data:

- Directly from MoDOT;
- Through Keen Independent requests to local agencies; and
- From Keen Independent requests to prime contractors.

Construction subcontract data obtained directly from MoDOT. MoDOT maintains DBE committed amounts for LPA construction projects through CRL/AASHTOWare.

The files provided by MoDOT included information such as:

- Prime contractor (name);
- Contract ID;
- Project number;
- Award amount;
- Commitment vendor name (subcontractor); and
- Commitment amount.

Construction subcontract data obtained directly from local agencies. Keen Independent contacted local public agencies (via phone and/or email) that awarded more than \$10 million in construction contracts from July 2013 through June 2018. The study team provided each local agency with a list of contracts awarded (contract ID, prime contractor, contract title, award date and contract amount) during the study period and requested information about the subcontracts for each contract.

Local agencies were able to provide subcontract information for some of the contracts. However, much of this information was limited to DBE subcontractors.

Construction subcontract data obtained directly from primes. Keen Independent attempted to obtain subcontract data directly from prime contractors that were awarded construction contracts over \$13 million. MoDOT External Office of Civil Rights sent a request for this information to each of these primes. Keen Independent followed up directly via email and/or phone to reach out to contractors that did not respond to the initial request.

Keen Independent was able to reach a company representative for almost all of the primes. More than one-half of the firms contacted agreed to send some subcontract data. Some firms refused to provide these data and others agreed to provide data but did not follow through.

Summary of construction subcontract data for LPAs collected for the study. The study team was able to collect DBE and non-DBE subcontract data for 246 prime contracts that totaled \$223 million, or 34 percent of the LPA construction contracts (not including the DBE commitment from CRL/AASHTOWare). LPA construction represents 16 percent of total MoDOT construction (FHWA- and state-funded contracts).

LPA FHWA-funded prime consulting contract data. MoDOT Local Public Agency maintains consulting contract information through SMS. Similar to MoDOT consulting, subcontract information for both DBEs and non-DBEs are sometimes found in the PDFs for contracts saved in SMS (about 460 PDFs).

Fields in the data for consulting contracts include:

- District;
- LPA (name);
- County;
- Federal project number;
- Prefix (project);
- Project description;
- Preliminary engineering (PE) amount;
- Construction engineering (CE) amount;
- PE DBE goal; and
- CE DBE goal.

The PDFs for contracts saved in SMS included DBE goal and DBE participation, Subconsultants and “Estimate of Cost.” Keen Independent could determine work description and subcontracted amount for subconsultants based on this information.

Exclusions. Some types of purchases are typically outside the scope of an availability study. The study team made certain exclusions related to payments to:

- Colleges and universities;
- Government agencies; and
- Insurance companies

C. MoDOT and External Stakeholder Group Review

Keen Independent met with MoDOT and the External Stakeholder Group (also known as the DBE Focus Group) at the beginning, middle and end of the study to discuss methodology and present preliminary results. External Stakeholder Group members included FHWA, DBEs, other contractors and trade associations.

D. Data Limitations

MoDOT had more information on construction contracts awarded by MoDOT than construction contracts awarded by LPAs. The study team attempted to obtain all subcontractor data possible for LPA construction contracts in order to have a complete sample of data for analysis. The final data set included much but not all of the contract dollars sought by the study team.

As a percentage of total highway construction and engineering contract dollars, the prime and subcontract information Keen Independent was not able to obtain comprised a very small share of total contract dollars.

APPENDIX C.

General Approach to Availability Analysis

The study team compiled data on minority-, women- and majority-owned firms available for MoDOT contracts and developed dollar-weighted estimates of MBE/WBE availability based on analysis of individual transportation-related construction and engineering prime contracts and subcontracts. Keen Independent then adjusted the MBE/WBE availability to generate results for current and potential DBEs. Appendix C explains the availability methodology and results in five parts:

- A. General approach to collecting availability information;
- B. Development of the survey instruments;
- C. Execution of surveys;
- D. Additional considerations related to measuring availability; and
- E. The survey instrument.

A. General Approach to Collecting Availability Information

Keen Independent collected information from firms about their availability for MoDOT and local agency contracts through telephone and online surveys.

Listings. The firms contacted in the availability surveys came from several sources:

- Company representatives who had previously identified themselves to MoDOT as interested in learning about future work by registering with Bid Express, previously submitting prime or sub bids or proposals, becoming planholders or requesting information updates from MoDOT's Local Public Agency office.
- Businesses that Dun & Bradstreet (D&B) identified in certain transportation contracting-related subindustries in Missouri (D&B's Hoover's business establishment database).

The availability analysis focused on companies in Missouri performing types of work most relevant to MoDOT and local agency transportation construction and engineering contracts (including subcontracts, trucking and supplies for those contracts). As such, Keen Independent did not include all firm listings in the bidder/vendor lists or D&B database in the availability surveys, as described below.

Bid Express and other MoDOT bidder, vendor and planholder lists. MoDOT provided several lists of bidders, vendors and planholders for construction, professional services and other work. The individuals and businesses on these lists identified that they are interested in bidding on MoDOT construction- and engineering-related contracting opportunities. The lists include:

- Construction planholders — Prime and subcontractors can sign up for Bid Express. This enables them to view the plans and specifications for MoDOT’s advertised projects. Businesses that have registered on Bid Express comprise this list.

Keen Independent analyzed the list, removed subscribers with addresses outside the relevant geographic market area, deleted duplicate firms, and removed subscribers that did not pertain to transportation contracting.

- Bidders — This list of firms includes all prime and subcontractors that have bid on or been awarded a MoDOT project.
- Interested consultants — Vendors that have expressed interest in doing work on MoDOT projects.
- Prequalified listing — Vendors that have been prequalified by MoDOT for work on MoDOT projects.

Keen Independent attempted to exclude any listings for government agencies and not-for-profit organizations. (Not all such organizations were successfully excluded from the initial list, but those organizations were later excluded if representatives indicated that the organization was not a business as part of a survey.)

Dun & Bradstreet Hoover’s database. There might be other firms available for MoDOT work that do not appear on MoDOT lists. Therefore, Keen Independent supplemented the firms on the MoDOT lists by acquiring Dun & Bradstreet data for firms in Missouri that do business in relevant subindustries. Dun & Bradstreet’s (D&B) Hoover’s affiliate maintains the largest commercially available database of U.S. businesses.

Keen Independent determined the types of work involved in MoDOT contract elements by reviewing prime contract and subcontract dollars that went to different types of businesses during the study period. D&B classifies types of work by 8-digit work specialization codes.¹ Figure C-1 identifies the work specialization codes the study team determined were the most related to the FHWA-funded contracts and subcontracts examined in the study.

Keen Independent obtained a list of firms from the D&B Hoover’s database within relevant work codes that had locations within Missouri. D&B provided phone numbers for these businesses.

¹ D&B has developed 8-digit industry codes to provide more precise definitions of firm specializations than the 4-digit SIC codes or the NAICS codes that the federal government has prepared.

Total listings. Keen Independent attempted to consolidate information when a firm had multiple listings across different data sources. After consolidation, the data sources provided 13,163 unique listings for businesses the availability surveys.

Keen Independent did not draw a sample of those firms for the availability analysis; rather, the study team attempted to contact each business through telephone surveys and other methods. Some courts have referred to similar approaches to gathering availability data as a “custom census.”

Telephone surveys. Keen Independent retained Customer Research International (CRI) to conduct telephone surveys with listed businesses. After receiving the list described above, CRI used the following steps to complete telephone surveys with business establishments:

- Firms were contacted by telephone. Up to five phone calls were made at different times of day and different days of the week to attempt to reach each company.
- Interviewers indicated that the calls were made on behalf of the Missouri Department of Transportation for purposes of expanding its list of companies interested in performing MoDOT transportation-related work.
- Some firms indicated in the phone calls that they had no interest in MoDOT work, so no further survey was necessary. (Such surveys were treated as complete at that point.)

Other avenues to complete a survey. Even if a company was not directly contacted by the study team, business owners could complete a survey for their company online or request a fax or PDF version of the survey.

Figure C-1.
D&B 8-digit codes for availability list source

Code	Description	Code	Description
16110000	Highway and street construction	17990702	Parking lot maintenance
16110207	Gravel or dirt road construction	16110205	Resurfacing contractor
16119901	General contractor, highway and street constructio	17210302	Bridge painting
16119902	Highway and street maintenance	16119903	Highway reflector installation
16220000	Bridge, tunnel, and elevated highway construction	17210303	Pavement marking contractor
16229900	Bridge, tunnel, and elevated highway, nec	16110206	Sidewalk construction
16229901	Bridge construction	17710200	Curb and sidewalk contractors
16229902	Highway construction, elevated	17710201	Curb construction
16229903	Tunnel construction	17710202	Sidewalk contractor
16229904	Viaduct construction	17410100	Foundation and retaining wall construction
17310000	Electrical work	17410102	Retaining wall construction
17319903	General electrical contractor	17719901	Concrete pumping
17319904	Lighting contractor	17719904	Foundation and footing contractor
17910000	Structural steel erection	17999906	Core drilling and cutting
17919902	Concrete reinforcement, placing of	17999908	Diamond drilling and sawing
17919905	Iron work, structural	17710000	Concrete work
17919907	Precast concrete structural framing or panels, pla	17719902	Concrete repair
16110203	Grading	17999911	Erection and dismantling of forms for poured concr
16290400	Land preparation construction	73899921	Flagging service (traffic control)
16299901	Blasting contractor, except building demolition	73899937	Pilot car escort service
16299902	Earthmoving contractor	42120000	Local trucking, without storage
16299903	Land clearing contractor	42120202	Petroleum haulage, local
16299904	Pile driving contractor	42129904	Draying, local: without storage
16299906	Trenching contractor	42129905	Dump truck haulage
17940000	Excavation work	42129907	Hazardous waste transport
17949901	Excavation and grading, building construction	42129908	Heavy machinery transport, local
17990903	Shoring and underpinning work	42129912	Steel hauling, local
17950000	Wrecking and demolition work	42120200	Liquid transfer services
17959901	Concrete breaking for streets and highways	42120200	Liquid transfer services
17959902	Demolition, buildings and other structures	42139902	Building materials transport
17990801	Asbestos removal and encapsulation	42139903	Contract haulers
17990900	Building site preparation	42139904	Heavy hauling, nec
17999907	Dewatering	42139905	Heavy machinery transport
17999904	Building mover, including houses	16230000	Water, sewer, and utility lines
17990503	Construction site cleanup	16230104	Pipeline wrapping
7820206	Seeding services, lawn	16230300	Water and sewer line construction
7820207	Sodding contractor	16230301	Aqueduct construction
7820208	Spraying services, lawn	16230302	Sewer line construction
7820209	Sprigging services, lawn	16230303	Water main construction
7820210	Turf installation services, except artificial	16239902	Manhole construction
7829903	Landscape contractors	16239903	Pipe laying construction
16110100	Highway signs and guardrails	16239904	Pipeline construction, nsk
16110101	Guardrail construction, highways	16239906	Underground utilities contractor
16110102	Highway and street sign installation	87110000	Engineering services
17999912	Fence construction	87110400	Construction and civil engineering
16110202	Concrete construction: roads, highways, sidewalks,	87110402	Civil engineering
16110200	Surfacing and paving	87110404	Structural engineering
16110204	Highway and street paving contractor	87119903	Consulting engineer
16110201	Airport runway construction	87119909	Professional engineer
17710301	Blacktop (asphalt) work	87420410	Transportation consultant

Figure C-1.
D&B 8-digit codes for availability list source (cont.)

Code	Description	Code	Description
89990700	Earth science services	29510000	Asphalt paving mixtures and blacks
89990701	Geological consultant	29510200	Paving mixtures
89990702	Geophysical consultant	29510202	Coal tar paving materials (not from refineries)
73890200	Inspection and testing services	29510203	Concrete, asphaltic (not from refineries)
87340000	Testing laboratories	29510204	Concrete, binuminous
87340100	Radiation laboratories	29510206	Road materials, bituminous (not from ref.)
87340104	X-ray inspection service, industrial	32720000	Concrete products, nec
87340300	Pollution testing	32729903	Paving materials, prefabricated concrete
87340301	Hazardous waste testing	32729904	Prestressed concrete products
87349901	Assaying service	32730000	Ready-mixed concrete
87349902	Calibration and certification	50320100	Paving materials
87349905	Hydrostatic testing laboratory	50320101	Asphalt mixture
87349907	Metallurgical testing laboratory	50320102	Paving mixtures
87349909	Soil analysis	50320504	Concrete mixtures
87349911	Water testing laboratory	50329904	Cement
87419902	Construction management	52110502	Cement
87420402	Construction project management consultant	50399914	Metal guardrails
87489905	Environmental consulting	51720203	Gasoline
87310302	Environmental research	50630000	Electrical apparatus and equipment
73890800	Mapmaking services	50510216	Steel
73890801	Mapmaking or drafting, including aerial	33120400	Structural and rail mill products
73890802	Photogrammatic mapping	33120405	Structural shapes and pilings, steel
87130000	Surveying services	33120500	Bar, rod, and wire products
87139900	Surveying services, nec	34410200	Fabricated structural metal for bridges
87139901	Photogrammetric engineering	34410201	Bridge sections, prefabricated, highway
87139902	Surveying technicians	34490100	Fabricated bar joists, concrete reinforcing bars
14420000	Construction sand and gravel	34490101	Bars, concrete reinforcing: fabricated steel
14420201	Gravel mining	50399912	Soil erosion control fabrics
50329901	Aggregate	50510209	Forms, concrete construction (steel)
50329905	Gravel	50630504	Signaling equipment, electrical
50329908	Stone, crushed or broken	50990304	Reflective road markers
52110506	Sand and gravel	73539912	Work zone traffic eqpt (flags, cones, barrels, etc.)
29510201	Asphalt or asphaltic matls, made in refineries		
29110505	Road materials, bituminous		
29110506	Road oils		

B. Development of the Survey Instruments

Keen Independent developed the survey instruments and MoDOT staff reviewed them prior to the start of the survey effort. The final instrument is presented at the end of this appendix.

Survey structure. The availability survey included nine sections. Note that the study team did not know the race, ethnicity or gender of the business owner when calling a business establishment. Obtaining that information was a key component of the survey.

Areas of survey questions included:

- **Identification of purpose.** The surveys began by identifying MoDOT as the survey sponsor and describing the purpose of the study (i.e., “compiling a list of companies interested in working on road, highway and bridge projects”).
- **Verification of correct business name.** CRI confirmed that the business reached was in fact the business sought out.
- **Contact information.** CRI then collected complete contact information for the establishment and the individual who completed the survey.
- **Verification of work related to transportation-related projects.** The interviewer asked whether the organization does work or provides materials related to construction, maintenance or design on transportation-related projects. Interviewers continued the survey with businesses regardless of how they responded to this question; however, this response was taken into account when determining whether the firm performs transportation-related work (see Figure C-3 for more information).
- **Verification of for-profit business status.** The survey then asked whether the organization was a for-profit business as opposed to a government or not-for-profit entity. Interviewers continued the survey with businesses that responded “yes” to that question.
- **Identification of main lines of business.** Businesses then chose from a list of work types that their firm performed in categories of construction-related work, engineering-related work and supply activities. In addition to choosing all areas that the firms did work, the study team asked businesses to briefly describe their main line of business as an open-ended question.
- **Sole location or multiple locations.** The interviewer asked business owners or managers if their businesses had other locations and whether their establishments were affiliates or subsidiaries of other firms. (Keen Independent combined responses from multiple locations into a single record for multi-establishment firms.)
- **Past bids or work with government agencies and private sector organizations.** The survey then asked about bids and work on past government and private sector contracts. The questions were asked in connection with both prime contracts and subcontracts.
- **Qualifications and interest in future transportation work.** The interviewer asked about businesses’ qualifications and interest in future work with MoDOT and other government agencies in connection with both prime contracts and subcontracts.
- **Geographic areas.** Interviewees were asked whether they could do work in several geographic areas corresponding to MoDOT districts: Northwest, Northeast, Central, St. Louis, Kansas City, Southwest and Southeast.

- **Largest contracts.** The study team asked businesses to identify the value of the largest transportation-related contract or subcontract on which they had bid on or had been awarded in Missouri during the past seven years.
- **Ownership.** Businesses were asked if at least 51 percent of the firm was owned and controlled by women and/or minorities. If businesses indicated that they were minority-owned, they were also asked about the race and ethnicity of owners. The study team reviewed reported ownership against other available data sources such as DBE and MBE directories.
- **Business background.** The study team asked businesses to identify the approximate year in which the firm was established. The interviewer asked several questions about the size of businesses in terms of their revenues and number of employees. For businesses with multiple locations, this section also asked about their revenues and number of employees across all locations.

C. Execution of Surveys

Keen Independent held planning and training sessions with CRI as part of the launch of the availability surveys. CRI began conducting full availability surveys in February 2019 and completed the surveys in early April.

To minimize non-response, CRI made at least five attempts at different times of day and on different days of the week to reach each business establishment. CRI identified and attempted to interview an available company representative such as the owner, manager or other key official who could provide accurate and detailed responses to the questions included in the survey.

Establishments that the study team successfully contacted. Figure C-2 presents the disposition of the businesses the study team attempted to contact for availability surveys. Note that the following analysis is based on business counts after Keen Independent removed duplicate listings (this list included 13,163 unique businesses).

Non-working or wrong phone numbers. Some of the business listings that the study team attempted to contact were:

- Non-working phone numbers (2,177); or
- Wrong numbers for the desired businesses (116).

Some non-working phone and wrong numbers reflected business establishments that closed, were sold or changed their names and phone numbers between the time that a source listed them and the time that the study team attempted to contact them.

Figure C-2.
Disposition of attempts
to survey business
establishments

Note:
Study team made at least five
attempts to complete an
interview with each
establishment.

Source:
Keen Independent from 2019
Availability Surveys.

	Number of firms	Percent of business listings
Beginning list (unique businesses)	13,163	
Less non-working phone numbers	2,177	
Less wrong number	116	
Firms with working phone numbers	10,870	100 %
Less no answer	5,360	
Less could not reach responsible staff member	409	
Less could not continue in English or Spanish	14	
Less unreturned fax/email	244	
Less said they already completed the survey but didn't	32	
Firms successfully contacted	4,811	44 %

Working phone numbers. As shown in Figure C-2, there were 10,870 businesses with working phone numbers that the study team attempted to contact. For various reasons, the study team was unable to contact some of those businesses:

- **No answer.** Some businesses could not be reached after at least five attempts at different times of the day and on different days of the week (5,360 establishments).
- **Could not reach responsible staff member.** For a small number of businesses (409), after repeated attempts a responsible staff person could not be reached to complete the survey.
- **Could not complete the survey in English or Spanish.** Language barriers presented a difficulty in conducting the survey for 14 companies.
- **Unreturned fax or email surveys.** The study team sent email invitations to those who requested a link to the online survey or requested to do the survey via fax. There were 244 businesses that requested such surveys but did not return them.
- **Respondent indicated that they had already completed an online or phone survey.** There were 32 respondents who said that they had already completed the online or phone survey that were not found within the online or phone survey responses.

After taking those unsuccessful attempts into account, the study team was able to successfully contact 4,811 businesses, or 44 percent of those with working phone numbers.

Establishments included in the availability database. Figure C-3 presents the disposition of the 4,811 businesses the study team successfully contacted and how that number resulted in the 1,020 businesses the study team included in the availability database.

Figure C-3.
Disposition of successfully contacted businesses

Source:
Keen Independent from 2019
Availability Surveys.

	Number of firms
Firms successfully contacted	4,811
Less business not interested	2,973
Less no longer in business	456
Firms that completed interviews about business characteristics	1,382
Less not a for-profit business	308
Less firms with no location in the study area	85
Firms included in availability database	989
Plus firms that completed online survey	31
Total firms included in availability database	1,020

Establishments not interested in discussing availability for MoDOT work. Of the 4,811 businesses that the study team successfully contacted, 2,973 were not interested in discussing their availability for MoDOT work. In Keen Independent’s experience, those types of responses are often firms that do not perform relevant types of work or are not interested in working with the agency. Another 456 respondents indicated that their companies were no longer in business.

Businesses included in the availability database. Some firms completing availability surveys were not included in the final availability database because they did not have a location within the study area or they reported that they were not a for-profit business:

- Keen Independent excluded 85 businesses with no location in the study area.
- Of the completed surveys, 308 indicated that they were not a for-profit business (including non-profits, residences or government agencies). Surveys ended when respondents reported that their establishments were not for-profit businesses.

After those final screening steps, the survey effort produced a database of 989 businesses potentially available for MoDOT work. An additional 31 businesses completed an online survey indicating their availability for MoDOT work, creating a final database of 1,020 potentially available firms.

Coding responses from multi-location businesses. As described above, there were multiple responses from some firms. Responses from different locations of the same business were combined into a single, summary data record after reviewing the multiple responses.

D. Additional Considerations Related to Measuring Availability

The study team made several additional considerations related to its approach to measuring availability, particularly as they related to MoDOT’s implementation of the Federal DBE program.

Not providing a count of all businesses available for MoDOT work. The purpose of the availability surveys was to provide precise, unbiased estimates of the percentage of MBE/WBEs and DBEs potentially available for MoDOT work. The research appropriately focused on firms in highway-related subindustries and the relevant geographic area for MoDOT transportation contracting. Firms in subindustries that comprised a very small portion of MoDOT highway-related work were not included in the surveys. Keen Independent did not purchase Dun & Bradstreet data for firms outside Missouri and not all firms on the list of businesses completed surveys, even after repeated attempts to contact them. Therefore, the availability analysis did not provide a comprehensive listing of *every* business that could be available for all types of MoDOT work and should not be used in that way.

Federal courts have approved similar approaches to measuring availability to the methodology used in this study. The United States Department of Transportation’s (USDOT’s) “Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program” also recommends a similar approach to measuring availability for agencies implementing the Federal DBE Program.²

Not using a “headcount” based solely on MoDOT lists. USDOT guidance for determining MBE/WBE availability recommends dividing the number of businesses in an agency’s DBE directory by the total number of businesses in the marketplace, as reported in U.S. Census data. As another option, USDOT suggests using a list of prequalified businesses or a bidders list to estimate the availability of MBE/WBEs for an agency’s prime contracts and subcontracts.

Keen Independent used MoDOT lists that included firms that expressed interest in MoDOT work, but also included other firms potentially available for MoDOT contracts as well. This helps capture firms that might have been discouraged from pursuing MoDOT work and did not appear on MoDOT lists.

Keen Independent’s approach to measuring availability in this study also incorporates several layers of refinement to a simple head count approach. For example, the surveys provide data on businesses’ qualifications, size of contracts they bid on and interest in MoDOT work, which allowed the study team to take a more refined approach to measuring availability.

Using D&B lists. Keen Independent supplemented business lists obtained from MoDOT with Dun & Bradstreet business listings for Missouri. Note that D&B does not require firms to pay a fee to be included in its listings — it is completely free to listed firms. D&B provides the most comprehensive private database of business listings in the United States.

² Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program. Retrieved from <http://www.osdbu.dot.gov/dbeprogram/tips.cfm>

Even so, the database does not include all establishments operating in Missouri due to the following reasons:

- There can be a lag between formation of a new business and inclusion in D&B listings, meaning that the newest businesses may be underrepresented in the sample frame.
- Although D&B includes home-based businesses, those businesses are more difficult to identify and are thus somewhat less likely than other businesses to be included in D&B listings. Small, home-based businesses are more likely than large businesses to be minority- or women-owned, which suggests that MBE/WBEs might be underrepresented in the final availability database.
- Some businesses providing transportation construction or engineering-related work might not be classified as such in the D&B data.

Because Keen Independent used several MoDOT data sources of business listings for the availability analysis as well as D&B lists, the final survey list captures some firms not included in the D&B data. (The study team estimates that about 15% of the completed surveys were firms not on the list of firms purchased from D&B.)

Selection of specific subindustries. Keen Independent identified specific subindustries when compiling business listings from Dun & Bradstreet. D&B provides highly specialized, 8-digit codes to assist in selecting firms within specific specializations. There are limitations when choosing specific D&B work specialization codes to define sets of establishments to be surveyed, which leave some businesses off the contact list. However, Keen Independent's use of additional MoDOT data (Bid Express, bidders/proposers lists, planholders lists, etc.) for Missouri mitigates this potential concern.

Large number of companies reporting that they do not perform highway-related work or were not interested in discussing MoDOT work. Many firms contacted in the availability surveys indicated that they did not perform related work or were otherwise not interested in MoDOT work. The number of responses fitting these categories reflects the fact that Keen Independent was necessarily broad when developing its initial lists.

For example, Dun & Bradstreet does not have a subindustry code that identifies the subset of electrical firms or trucking firms that perform highway-related work. Therefore, Keen Independent acquired a general list of electrical firms (code 17310000) and local trucking firms (code 42120000), and through surveys identified which firms would perform highway or other transportation work. Most did not. Many of the firms indicating that they were not interested in discussing MoDOT work were in electrical, trucking, site work and engineering services.

Non-response bias. An analysis of non-response bias considers whether businesses that were not successfully surveyed are systematically different from those that were successfully surveyed and included in the final data set. There are opportunities for non-response bias in any survey effort.

The study team considered the potential for non-response bias due to:

- Research sponsorship;
- Differences in success reaching potential interviewees; and
- Language barriers.

Research sponsorship. Interviewers introduced themselves by identifying MoDOT as the survey sponsor because businesses may be less likely to answer somewhat sensitive business questions if the interviewer was unable to identify the sponsor.

Differences in success reaching potential interviewees. There might be differences in the success of reaching firms in different types of work. However, Keen Independent concluded that any such differences did not lead to lower estimates of MBE/WBE availability than if the study team had been able to successfully reach all firms.

Businesses in highly mobile fields, such as trucking, are more difficult to reach for availability surveys than businesses more likely to work out of fixed offices (e.g., engineering firms). That assertion suggests that response rates may differ by work specialization. Simply counting all surveyed businesses across work specializations to determine overall MBE/WBE availability would lead to estimates that were biased in favor of businesses that could be easily contacted by email or telephone.

However, work specialization as a potential source of non-response bias in the availability analysis is minimized because the availability analysis examines businesses within particular work fields before determining an MBE/WBE availability figure. In other words, the potential for trucking firms to be less likely to complete a survey is less important because the number of MBE/WBE trucking firms is compared with the number of total trucking firms when calculating availability for trucking work.

Keen Independent examined whether minority- and women-owned firms were more difficult to reach in the telephone survey and found no indication that interviewers were less likely to complete telephone surveys with MBE/WBEs than majority-owned firms. The study team examined response rates based on MBE/WBE versus non-MBE/WBE business ownership data in the purchased Dun & Bradstreet list. Comparing MBE/WBE representation on the initial list from Dun & Bradstreet with MBE/WBE representation on the list of firms (from the D&B source) that were successfully contacted, MBE/WBE firms were just slightly more likely to be successfully contacted than majority-owned firms (firms D&B identified as MBE/WBEs were 8.5% of initial list and 9.1% of successfully surveyed firms). There is no indication that there were differences in response rates that materially affected the estimates of MBE/WBE availability in this study.

Potential language barriers. Because of the methods explained previously in this appendix, any language barriers were minimal. Study results do not appear to have been affected by conducting the principal portions of the availability survey in English.

Response reliability. Business owners and managers were asked questions that may be difficult to answer, including questions about revenue and employment.

Keen Independent explored the reliability of survey responses in several ways. For example:

- Keen Independent reviewed data from the availability surveys in light of information from other sources such as Bid Express and other vendor information that the study team collected from MoDOT. This includes data on the race/ethnicity and gender of the owners of DBE-certified businesses and was compared with survey responses concerning business ownership.
- Keen Independent used DBE directories and other sources of information to confirm information about the race/ethnicity and gender of business ownership that it obtained from availability surveys.

A copy of the survey instrument for construction follows.

E. Availability Survey Instrument

MISSOURI DEPARTMENT OF TRANSPORTATION FAX/EMAIL SURVEY

Survey Instructions

When you have finished the survey, please: 1) Scan completed survey and email to surveys@cri-research.com; OR
2) Fax completed survey to 512-353-3696.

If you have any questions, please contact: **Lester Woods**
Missouri Department of Transportation (MoDOT)
Director, External Civil Rights
573-526-2978

You may also visit <http://www.keenindependent.com/modot2019availabilitystudy/> to learn more.

VERSION. Which of the following best describes the type of work your firm does?

- 01=Construction
- 02=Professional services
- 03=Other goods and services

Z5. What is the name of your business?

Z8. Address of business (if multiple offices, choose a Missouri location if possible):

Street Address: _____

City (Required): _____

State (Required): _____

ZIP: _____

A1. Does your firm do any work related to road, highway and bridge projects? This includes any construction, engineering and design, trucking, and materials supply on highways, roads, bridges and related projects.

- 1=Yes
- 2=No
- 98=(Don't know)

A2. Is your firm a business, as opposed to a non-profit organization, a foundation or a government office?

- 1=Yes
- 2=No
- 98=(Don't know)

A4. What would you say is the main line of business of your company?

A5. Is the address of your business, as provided earlier, the sole location for your business, or do you have offices in other locations?

- 1=Sole location
- 2=Have other locations
- 98=(Don't know)

A6. Is your company a subsidiary or affiliate of another firm?

- 1= Independent **[SKIP TO B1]**
- 2=Subsidiary or affiliate of another firm
- 98=(Don't know) **[SKIP TO B1]**

A7. What is the name of your parent company?

Instructions for Question B1. For the first question of the survey (“VERSION”), if you answered:

- (1): Construction, **please answer** question B1_Construction. **PLEASE SKIP** B1_Professional Services and B1_Other goods and services.
- (2): Professional services, **please answer** question B1_Professional Services. **PLEASE SKIP** B1_Construction and B1_Other goods and services.
- (3): Other goods and services, **please answer** question B1_Other goods and services. **PLEASE SKIP** B1_Construction and B1_Professional services.

B1_Construction (**Please ONLY answer if you selected “Construction” on the first page of the survey**). What types of work does your firm perform related to construction? Select all that apply.

- 1=General road construction and widening
- 2=Bridge and elevated highway construction
- 3=Electrical work including lighting and signals
- 4=Structural steel work
- 5=Excavation, site prep, grading and drainage
- 6=Wrecking, demolition and clean-up
- 7=Landscaping and related work, including erosion control
- 8=Installation of guardrails, fencing or signs (traffic or highway signs)
- 9=Portland cement concrete paving
- 10=Asphalt paving
- 11=Pavement surface treatment (such as sealing)
- 13=Painting for road or bridge projects
- 14=Striping or pavement marking
- 15=Concrete flatwork (including sidewalk, curb and gutter)
- 16=Drilling and foundations
- 18=Concrete cutting
- 19=Other concrete work
- 20=Temporary traffic control
- 21=Trucking and hauling
- 22=Underground utilities
- 31=Inspection and testing
- 32=Construction management
- 35=Surveying and mapping
- 88=OTHER (Please specify): _____
- 98=(Don't know)

B1_Professional services (**Please ONLY answer if you selected “Professional services” on the first page of the survey**). What types of work does your firm perform? Select all that apply.

- 30=Engineering
- 31=Inspection and testing
- 32=Construction management
- 34=Environmental consulting
- 35=Surveying and mapping
- 88=Other (Please specify:) _____
- 98=(Don't know)

B1_Other goods and services (**Please ONLY answer if you selected “Other goods and services” on the first page of the survey**). What types of goods and services work does your firm perform? Select all that apply.

- 36=Aggregate materials supply
- 37=Asphalt, concrete or other paving materials
- 38=Fence or guardrail materials
- 41=Petroleum
- 88=Other (Please specify:) _____
- 98=(Don't know)

C1. During the past seven years, has your company submitted a bid on or been awarded work for any part of a contract for a state or local government agency in Missouri?

- 1=Yes
- 2=No **[SKIP TO C3]**
- 98=(Don't know) **[SKIP TO C3]**

C2. For those bids or awards, which of the following describes your role? Please select all that apply.

- 1=Prime contractor
- 2=Subcontractor
- 3=Trucker or hauler
- 4=Supplier or manufacturer
- 98=(Don't know)

C3. Thinking about future transportation-related work, is your company qualified and interested in working with MoDOT or local agencies as a prime contractor?

- 1=Yes
- 2=No
- 98=(Don't know)

C4. Thinking about future transportation-related work, is your company qualified and interested in working with MoDOT or local agencies as a subcontractor or supplier?

- 1=Yes
- 2=No
- 98=(Don't know)

The next questions pertain to the geographic areas in Missouri where your company can perform work or serve customers.

D1. Can your company do work in the Kansas City area?

- 1=Yes
- 2=No
- 98=(Don't know)

D2. Can your company do work in Northwest Missouri, such as Saint Joseph or Maryville?

- 1=Yes
- 2=No
- 98=(Don't know)

D3. Can your company do work in Northeast Missouri, such as Macon or Hannibal?

- 1=Yes
- 2=No
- 98=(Don't know)

D4. Can your company do work in the St. Louis area?

- 1=Yes
- 2=No
- 98=(Don't know)

D5. Can your company do work in Southeast Missouri, such as West Plains or Sikeston?

- 1=Yes
- 2=No
- 98=(Don't know)

D6. Can your company do work in Southwest Missouri, such as Springfield or Joplin?

- 1=Yes
- 2=No
- 98=(Don't know)

D7. Can your company do work in Central Missouri, such as Columbia or Rolla?

- 1=Yes
- 2=No
- 98=(Don't know)

E1. In rough dollar terms, in the past seven years what was the largest road-, highway-, or bridge-related contract or subcontract your company was awarded, bid on, or submitted quotes for in Missouri?

- 1=\$100,000 or less
- 2=More than \$100,000 up to \$500,000
- 3=More than \$500,000 up to \$1 million
- 4=More than \$1 million up to \$2 million
- 5=More than \$2 million up to \$5 million
- 6=More than \$5 million up to \$10 million
- 7=More than \$10 million up to \$20 million
- 8=More than \$20 million up to \$100 million
- 9=More than \$100 million
- 97=(None)
- 98=(Don't know)

The next questions are about the ownership of the business.

F1. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is your firm a woman-owned business?

- 1=Yes
- 2=No
- 98=(Don't know)

F2. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is African American, Asian, Hispanic, Native American or another minority group. By this definition, is your firm a minority-owned business?

- 1=Yes
- 2=No **[SKIP TO G1]**
- 98=(Don't know) **[SKIP TO G1]**

F3. Would you say that the minority group ownership is mostly African American, Asian-Pacific American, Hispanic American, Native American or Subcontinent Asian American?

- 1=African American
- 2=Asian Pacific American
- 3=Hispanic American or Portuguese American
- 4=Native American
- 5=Subcontinent Asian American
- 6=Other group (Please specify) _____
- 98=(Don't know)

The next questions are about the background of the business.

G1. About what year was your firm established?

The next set of questions pertain to annual averages for your company for the past three years (or just years in business if formed after 2016).

G3. About how many employees did you have working out of just your location, on average, over the past three years? (This includes employees who work at that location and those who work from that location.)

G5. Think about the annual gross revenue of your company, considering just your location. Please estimate the annual average for the past three years.

- | | |
|--|--|
| <input type="radio"/> 1=Up to \$0.5 million | <input type="radio"/> 7=\$15.1 million to \$24 million |
| <input type="radio"/> 2=\$0.6 million to \$1 million | <input type="radio"/> 8=\$24.1 million to \$27.5 million |
| <input type="radio"/> 3=\$1.1 million to \$3.5 million | <input type="radio"/> 9=\$27.6 million to \$36.5 million |
| <input type="radio"/> 4=\$3.6 million to \$7.5 million | <input type="radio"/> 10=\$36.6 million or more |
| <input type="radio"/> 5=\$7.6 million to \$11 million | <input type="radio"/> 98=(Don't know) |
| <input type="radio"/> 6=\$11.1 million to \$15 million | |

G6. [SKIP IF YOUR FIRM DOES NOT HAVE OTHER LOCATIONS]

About how many employees did you have, on average, for all of your locations over the past three years?

(Number of employees at all locations should not be fewer than at just your location.)

G7. [SKIP IF YOUR FIRM DOES NOT HAVE OTHER LOCATIONS]

Think about the annual gross revenue of your company, for all your locations. Please estimate the annual average for the past three years.

(Revenue at all locations should not be less than at just your location.)

- 1=Up to \$0.5 million
- 2=\$0.6 million to \$1 million
- 3=\$1.1 million to \$3.5 million
- 4=\$3.6 million to \$7.5 million
- 5=\$7.6 million to \$11 million
- 6=\$11.1 million to \$15 million
- 7=\$15.1 million to \$24 million
- 8=\$24.1 million to \$27.5 million
- 9=\$27.6 million to \$36.5 million
- 10=\$36.6 million or more
- 98=(Don't know)

H. Finally, we're interested in whether the company has experienced barriers or difficulties associated with business start-up or expansion in the industry, or with obtaining work. Think about your experiences in the past seven years as you answer these questions.

H1a. Has your company experienced any difficulties in obtaining lines of credit or loans?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1b. Has your company obtained or tried to obtain a bond for a project?

- 1=Yes
- 2=No **[SKIP TO H1d]**
- 97=(Does not apply) **[SKIP TO H1d]**
- 98=(Don't know) **[SKIP TO H1d]**

H1c. Has your company had any difficulties obtaining bonds needed for a project?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1d. Have you had any difficulty in being prequalified for work?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1e. Have any insurance requirements on projects presented a barrier to bidding?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1f. Has the large size of projects presented a barrier to bidding?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1g. Has your company experienced any difficulties learning about bid opportunities directly with MoDOT?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1h. Has your company experienced any difficulties learning about bid opportunities with cities or counties in Missouri?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1i. Has your company experienced any difficulties learning about subcontracting opportunities with prime contractors in Missouri?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1j. Has your company experienced any difficulties receiving payment from MoDOT in a timely manner?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1k. Has your company experienced any difficulties receiving payment from prime contractors in a timely manner?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1l. Has your company experienced any difficulties receiving payment from other customers in a timely manner?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H1m. Has your company experienced any difficulties obtaining final approval on your work from inspectors or prime contractors?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

H2. Do any other barriers come to mind about starting and expanding a business or achieving success in your industry in the local marketplace?

- 97=Nothing/None/No comments
- 98=(Don't know)

H3. Would you be willing to participate in a follow-up interview about any of these issues?

- 1=Yes
- 2=No
- 97=(Does not apply)
- 98=(Don't know)

Just a few last questions.

11. What is your name?

12. What is your position at the firm?

- 1=Receptionist
- 2=Owner
- 3=Manager
- 4=CFO
- 5=CEO
- 6=Assistant to Owner/CEO
- 7=Sales manager
- 8=Office manager
- 9=President
- 88=Other (Please specify):

14. If you would like to receive information from the Missouri Department of Transportation, what mailing address should they use?

Street Address: _____

City: _____

State: _____

ZIP: _____

15. What fax number should MoDOT use to fax any materials to you?

- 15P. What phone number should MoDOT use to contact you?

16. What e-mail address could MoDOT use to get any materials to you?

Thank you for your time. This is very helpful for MoDOT.

If you have any questions, please contact:

Lester Woods
Missouri Department of Transportation (MoDOT)
Director, External Civil Rights
573-526-2978

APPENDIX D.

Availability Survey Results Concerning Potential Barriers

As part of the availability surveys conducted with businesses, Keen Independent asked firm owners and managers if they had experienced barriers or difficulties associated with starting or expanding a business or with obtaining work. Appendix D compares the results of these “yes or no” questions for minority-, women- and majority-owned firms. (Appendix C explains the survey process and provides survey questions.)

Results are separately presented for construction firms, engineering-related businesses and materials suppliers; some questions were industry-specific and not asked of all businesses. The analysis is grouped into three sets of potential barriers:

1. Access to capital, bonding and project requirements;
2. Learning about bid opportunities with MoDOT and other groups; and
3. Receipt of payment on projects and obtaining final approval for work performed.

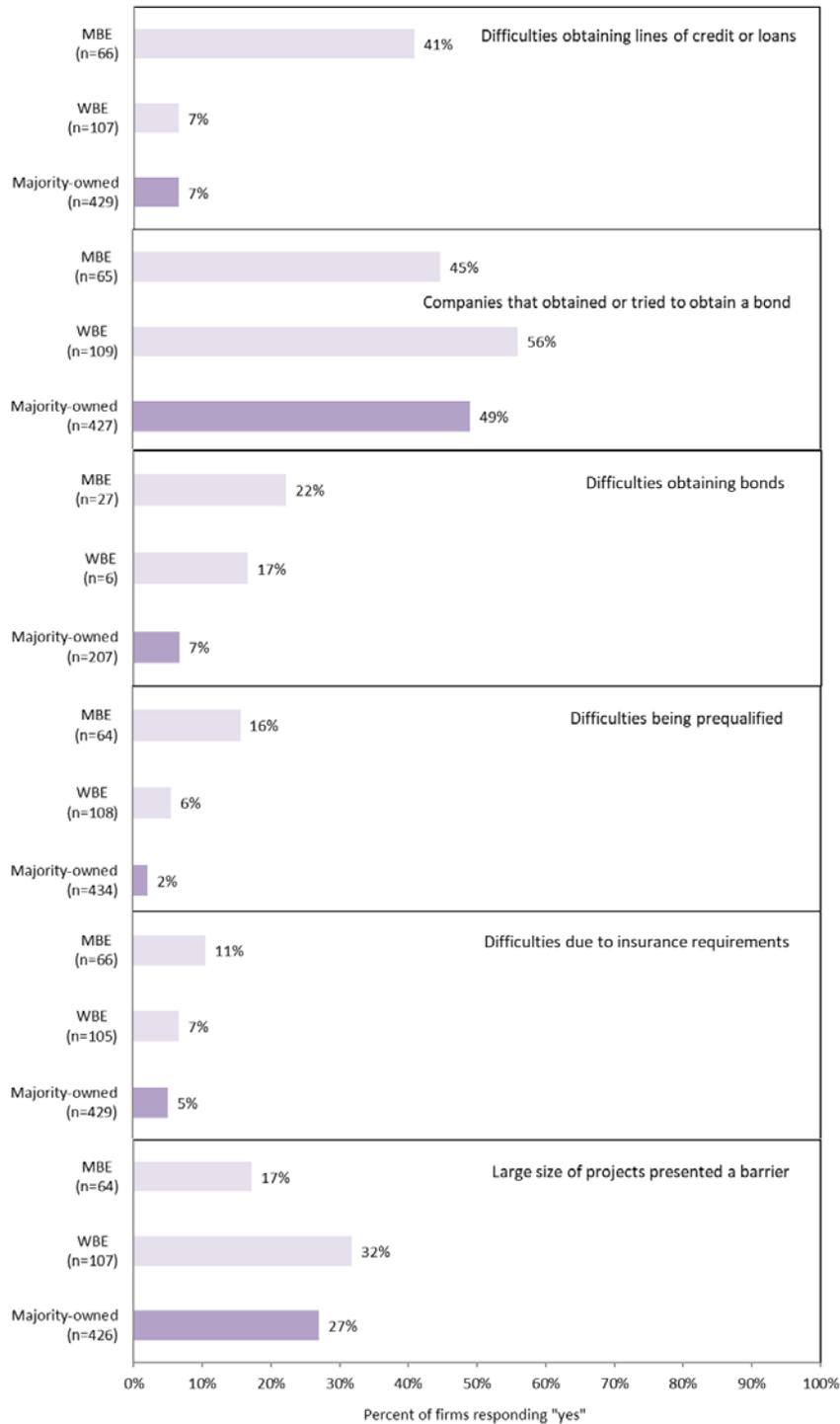
A. Construction Businesses

The availability survey asked construction firms about obtaining financing and bonding, being prequalified for work, insurance requirements and whether project size was a barrier to bidding. Figure D-1 shows the results.

- About 41 percent of MBE construction firms surveyed reported difficulties associated with obtaining lines of credit or loans. Only 7 percent of both WBE and majority-owned construction firms reported difficulties obtaining lines of credit.
- About one-half of all construction firms surveyed had obtained or tried to obtain bonds. Among those firms, MBEs (22%) and WBEs (17%) were much more likely than majority-owned firms (7%) to indicate difficulties obtaining bonds.
- Sixteen percent of MBEs reported difficulties being prequalified for work compared with 6 percent of WBEs and only 2 percent of majority-owned firms.
- A larger percentage of MBEs (11%) than WBEs (7%) and majority-owned firms (5%) reported that insurance requirements on contracts were a barrier to bidding.
- WBEs (32%) were more likely than majority-owned construction firms (27%) to indicate that large contract size presented a barrier to bidding. For MBE respondents, 17 percent reported that contract size presented a barrier.

Figure D-1.

Responses to availability survey questions concerning loans, bonding and insurance, prequalification and size of projects, Missouri MBE, WBE and majority-owned construction firms



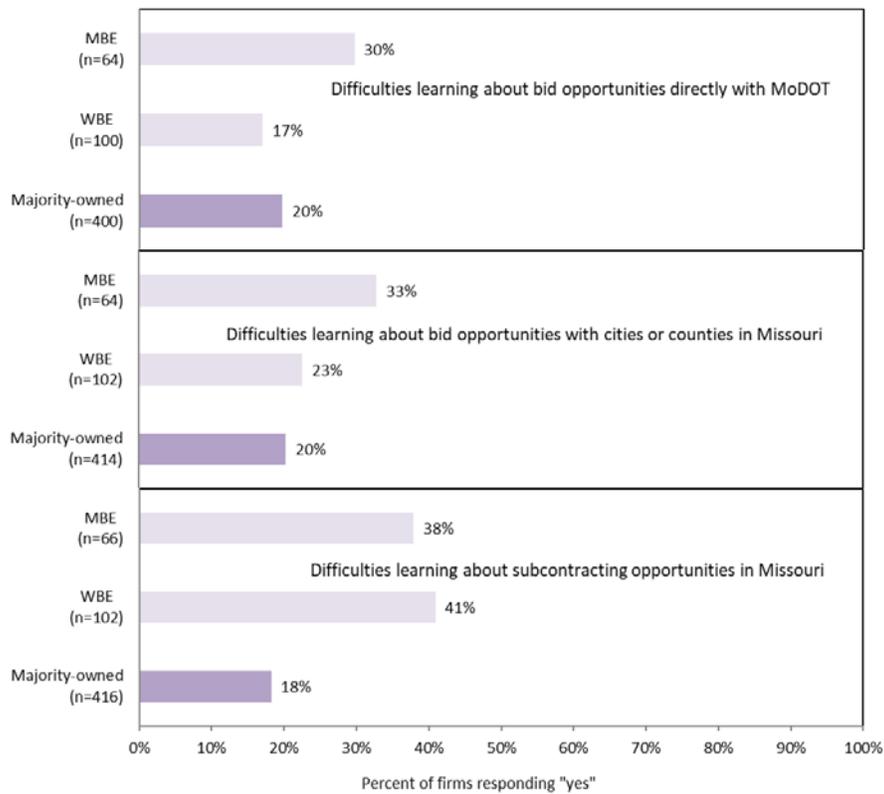
Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

The survey also asked construction firms about any difficulties learning about bid opportunities. Responses are shown in Figure D-2.

- Relatively more MBEs indicated difficulties learning about bid opportunities directly with MoDOT and with cities or counties in Missouri (30% and 33%, respectively) than majority-owned firms (20%). Of WBE respondents, 17 percent reported difficulties learning about opportunities with MoDOT and 23 percent reported similar difficulties with cities or counties in Missouri.
- Significantly more WBEs (41%) and MBEs (38%) than majority-owned firms (18%) indicated difficulties learning about subcontracting opportunities in Missouri.

Figure D-2.
Responses to availability survey questions concerning learning about work, Missouri MBE, WBE and majority-owned construction firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

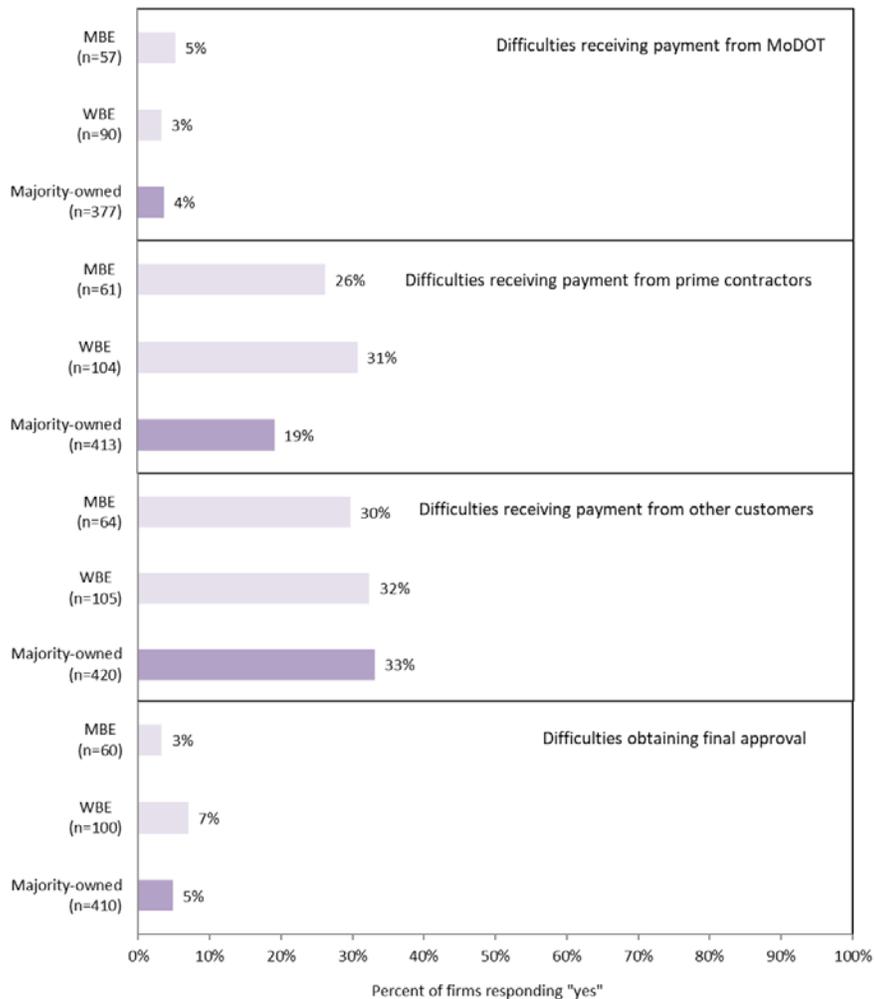
Source: Keen Independent Research from 2019 availability surveys.

Keen Independent also examined the proportion of construction firms reporting difficulty receiving payments, as shown in Figure D-3.

- Very few construction firms reported difficulties receiving payment from MoDOT.
- A larger proportion of WBEs (31%) and MBEs (26%) reported difficulty receiving payment from prime contractors when compared with majority-owned firms (19%).
- About one-third of construction firms said that they had experienced difficulties receiving payment from other customers. Results were similar among groups.

Figure D-3.

Responses to availability survey questions concerning receipt of payments and approval of work, Missouri MBE, WBE and majority-owned construction firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

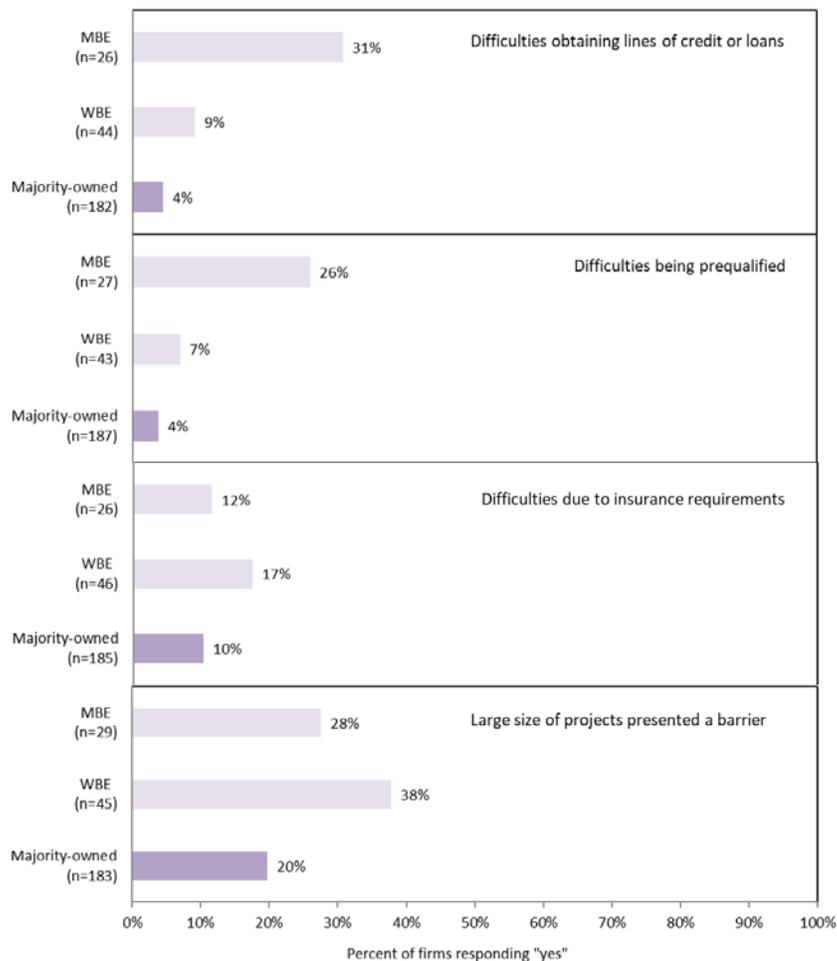
B. Engineering-related Businesses

The study team asked similar questions about marketplace barriers in the availability surveys with engineering firms. Results are shown in Figure D-4.

- Relatively more MBEs (31%) reported difficulties obtaining lines of credit or loans than WBEs (9%) and majority-owned firms (4%). Similarly, more MBEs (26%) indicated difficulties being prequalified than WBEs (7%) and majority-owned firms (4%).
- More WBEs (17%) reported difficulties due to insurance requirements compared with majority-owned firms (10%).
- MBEs (28%) and WBEs (38%) were more likely to report large project size as a barrier compared with majority-owned firms (20%).

Figure D-4.

Responses to availability survey questions concerning loans, prequalification, insurance and size of projects, Missouri MBE, WBE and majority-owned engineering firms



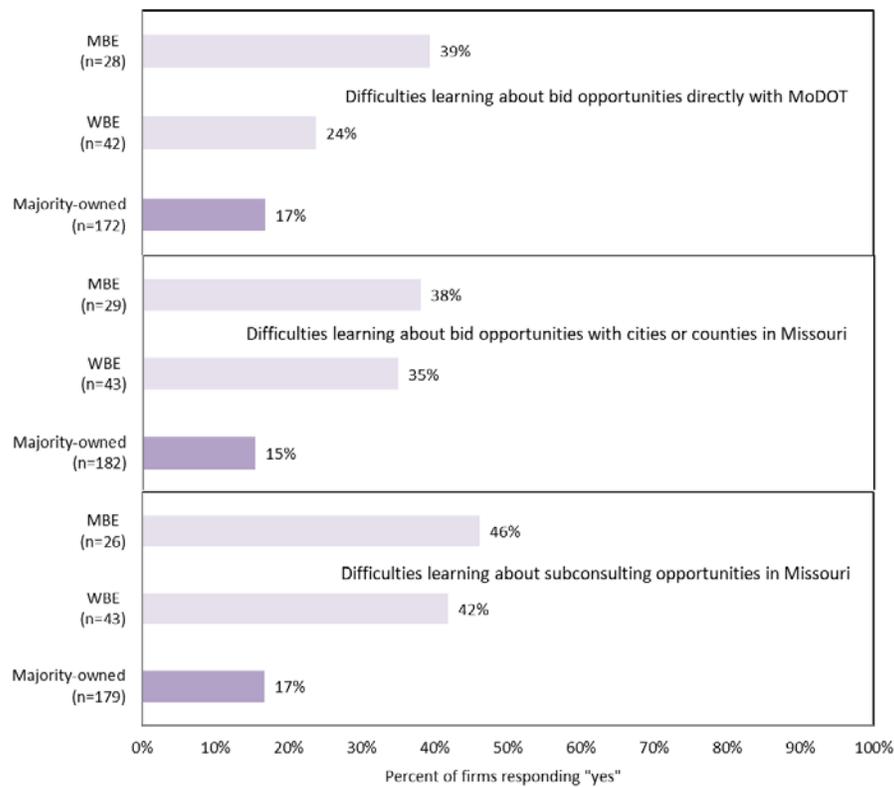
Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

Compared with majority-owned firms, a larger proportion of MBE and WBE engineering firms reported difficulties learning about bid opportunities with MoDOT, cities or counties in Missouri and prime contractors in Missouri.

- For example, 39 percent of MBEs and 24 percent of WBEs indicated difficulties learning about bid opportunities directly with MoDOT compared with 17 percent of majority-owned firms.
- As shown in Figure D-5, responses regarding difficulties learning about bid opportunities with cities or counties in Missouri were similar to responses when firms were asked about learning about opportunities directly with MoDOT.
- Compared with majority-owned firms, substantially more MBE and WBE engineering firms reported difficulties learning about subconsulting opportunities.

Figure D-5.
Responses to availability survey questions concerning learning about work, Missouri MBE, WBE and majority-owned engineering firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

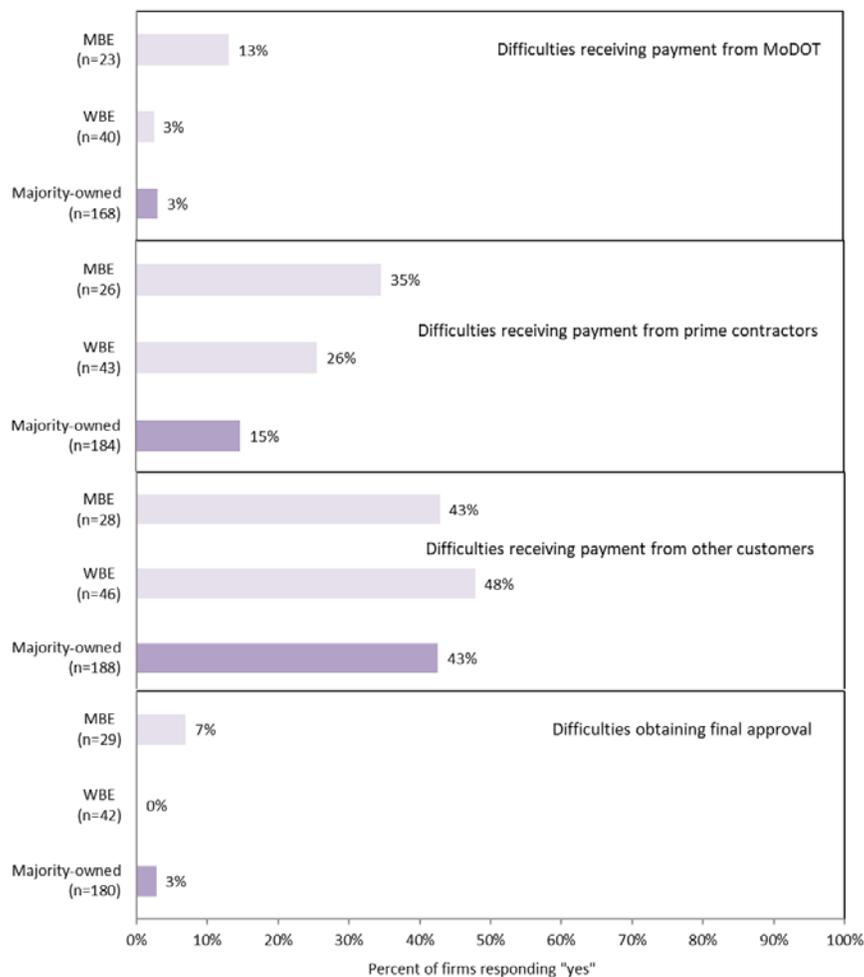
Source: Keen Independent Research from 2019 availability surveys.

Figure D-6 examines engineering-related firms' responses to questions about receiving payment.

- About 13 percent of MBE engineering firms reported difficulties receiving payment from MoDOT, higher than for WBEs and majority-owned firms (3%).
- More than one-third of MBEs reported difficulties receiving payment from prime contractors, compared with about one-fourth of WBEs and only 15 percent of majority-owned firms.
- Many MBEs, WBEs and majority-owned engineering-related firms difficulties receiving payment from other customers.
- Very few firms reported difficulties obtaining final approval.

Figure D-6.

Responses to availability survey questions concerning receipt of payments and approval of work, Missouri MBE, WBE and majority-owned engineering firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

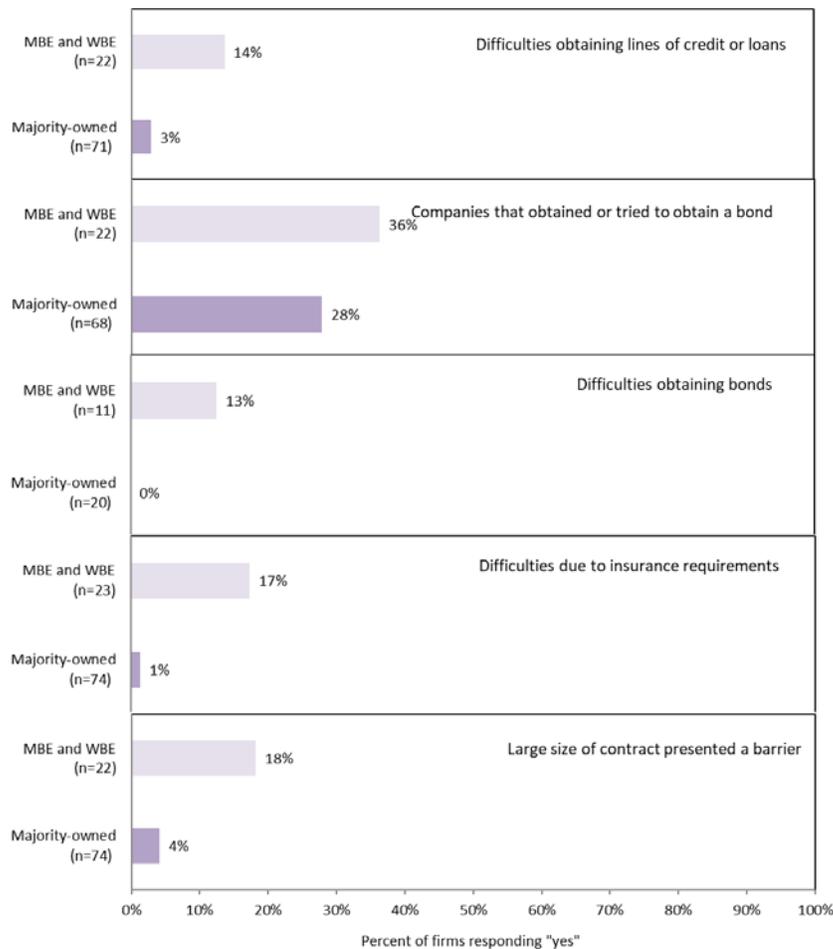
C. Materials Suppliers and Other Goods Firms

Suppliers and related firms were asked questions similar to construction and engineering firms in the availability survey. Because of the small number of survey responses from goods firms results for minority- and women-owned firms were combined. As with construction and engineering, Keen Independent examined barriers for materials suppliers operating in the Missouri marketplace. Figure D-7 on the following page provides these results.

- Compared with majority-owned firms, substantially more MBEs/WBEs (14%) reported difficulties obtaining lines of credit or loans than majority-owned firms (3%).
- More MBE/WBEs reported difficulties obtaining bonds and were more likely than majority-owned firms to indicate difficulties because of insurance requirements and project size.

Figure D-7.

Responses to availability survey questions concerning loans, bonding, insurance and size of projects, Missouri MBE and WBE and majority-owned goods firms



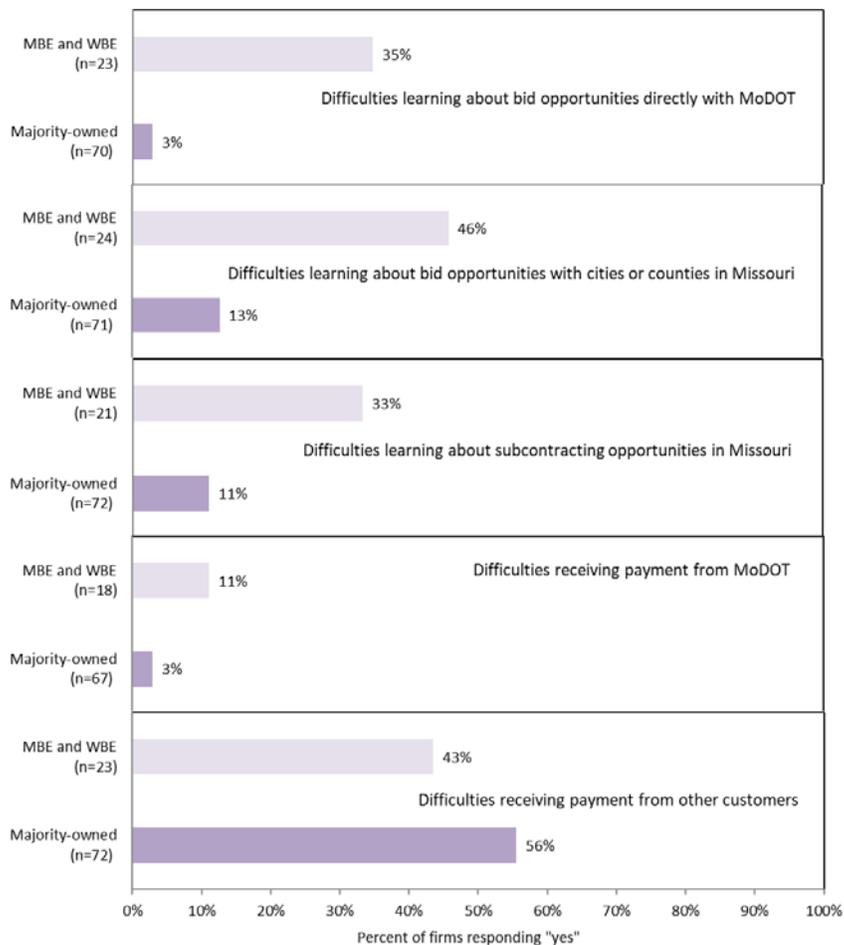
Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

As in other industries, suppliers were also asked about any difficulties learning about bid opportunities and receiving payment. Figure D-8 presents these results.

- A larger proportion of MBE/WBEs than majority-owned suppliers reported difficulties learning about bid opportunities with MoDOT, and with cities and counties.
- MBE/WBEs (33%) were much more likely than majority-owned firms (11%) to indicate difficulties learning about subcontracting and supply opportunities in Missouri.
- When asked about difficulties receiving payment from MoDOT, more MBE/WBEs (11%) reported issues compared with majority-owned firms (3%). However, many more MBE/WBEs and majority-owned firms reported difficulties receiving payment from other customers.

Figure D-8.
Responses to availability survey questions concerning learning about work and barriers to bidding, Missouri MBE and WBE and majority-owned goods firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2019 availability surveys.

APPENDIX E.

DBE Utilization Detailed Tables

Appendix E presents detailed results by race, ethnicity and gender for the information presented in Chapter 4. The detailed analysis in Appendix E includes results for contracts with and without goals, construction and engineering-related contracts, by MoDOT district, and prime versus subcontracts.

A. Contracts With and Without DBE Contract Goals

Figure E-1 presents detailed information for contracts with and without DBE goals.

Contracts with goals. White women-owned DBEs received the largest number of prime contracts and subcontracts with DBE goals and most dollars of all DBE groups. Among minority-owned DBEs, Native American-owned and African American-owned firms received the largest number and highest dollar volume of prime contracts and subcontracts with a DBE goal.

Contracts without goals. Figure E-1 also shows DBE participation on FHWA- and state-funded contracts without DBE goals (mostly white women-owned and African American-owned firms).

Figure E-1.

DBE share of MoDOT prime contracts and subcontracts for FHWA- and state-funded contracts with and without DBE contract goals, July 2013–June 2018

	Goals			No goals		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs						
African American-owned	521	\$ 54,751	1.4 %	94	\$ 5,537	1.5 %
Asian-Pacific American-owned	39	2,192	0.1	6	371	0.1
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0
Hispanic American-owned	135	12,186	0.3	19	2,736	0.7
Native American-owned	533	73,181	1.9	41	4,123	1.1
WBE (white women-owned)	4,450	380,815	9.8	504	30,519	8.3
Total MBE/WBE	5,678	\$ 523,125	13.5 %	664	\$ 43,286	11.8 %
Majority-owned	30	441	0.0	2	13	0.0
Total DBEs	5,708	\$ 523,565	13.5 %	666	\$ 43,299	11.8 %
Non-DBEs	7,543	\$ 3,365,146	86.5 %	1,628	\$ 324,318	88.2 %
Total	13,251	\$ 3,888,711	100.0 %	2,294	\$ 367,616	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

B. Construction and Engineering Contracts

Figure E-2 presents detailed information regarding DBE participation in FHWA-funded construction and engineering contracts.

Construction. White women-owned DBEs received the largest share of dollars of prime contracts and subcontracts on FHWA-funded construction contracts. Among minority-owned DBEs, Native American-owned firms (\$77 million) and African American-owned firms (\$48 million) received the most dollars of FHWA-funded construction contracts. Combined, Asian American- and Hispanic American-owned DBEs received 0.3 percent of FHWA-funded construction contract dollars.

Engineering. Figure E-2 also shows participation of DBEs on FHWA-funded engineering contracts. White women-owned businesses (7.6%) and African American-owned companies (6.1%) received most dollars among minority- and women-owned DBEs.

Figure E-2.

DBE share of MoDOT prime contracts and subcontracts for FHWA-funded contracts for construction and engineering contracts, July 2013–June 2018

	Construction			Engineering		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs						
African American-owned	385	\$ 48,049	1.2 %	229	\$ 12,225	6.1 %
Asian-Pacific American-owned	6	395	0.0	37	1,985	1.0
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0
Hispanic American-owned	133	12,379	0.3	21	2,543	1.3
Native American-owned	558	76,590	1.9	8	477	0.2
WBE (white women-owned)	4,620	394,255	9.8	292	15,111	7.6
Total MBE/WBE	5,702	\$ 531,668	13.2 %	587	\$ 32,341	16.2 %
Majority-owned	22	316	0.01	10	137	0.1
Total DBEs	5,724	\$ 531,984	13.2 %	597	\$ 32,478	16.2 %
Non-DBEs	7,532	\$ 3,488,994	86.8 %	1,499	\$ 167,639	83.8 %
Total	13,256	\$ 4,020,978	100.0 %	2,096	\$ 200,117	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

C. MoDOT Districts

Keen Independent examined DBE utilization in each MoDOT district. (Statewide contracts are not included.) Figure E-3 on the following two pages shows results by district for FHWA-funded contracts from July 2013 through June 2018.

Among DBEs, white women-owned businesses obtained the highest share of FHWA-funded contract dollars in all MoDOT's districts. For minority-owned DBEs, Native American-owned firms obtained the largest share of FHWA-funded contracts in each district except for St Louis, where African American-owned DBEs received the largest share of contract dollars.

Figure E-3.

DBE share of MoDOT prime contracts and subcontracts for FHWA-funded by MoDOT district, July 2013–June 2018

	Saint Louis			Kansas City			Northwest			Northeast		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs												
African American-owned	350	\$ 43,045	3.5 %	82	\$ 6,357	0.7 %	27	\$ 1,406	0.5 %	18	\$ 3,954	1.4 %
Asian-Pacific American-owned	30	1,687	0.1	6	421	0.0	1	57	0.0	1	65	0.0
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
Hispanic American-owned	72	5,324	0.4	57	5,358	0.6	13	442	0.2	5	3,759	1.4
Native American-owned	14	2,412	0.2	107	25,790	2.7	94	14,785	5.5	95	10,489	3.8
WBE (white women-owned)	1,645	137,214	11.2	560	102,210	10.6	289	18,349	6.8	330	15,828	5.8
Total MBE/WBE	2,111	\$ 189,682	15.4 %	812	\$ 140,136	14.5 %	424	\$ 35,040	13.1 %	449	\$ 34,094	12.5 %
Majority-owned	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
Total DBEs	2,111	\$ 189,682	15.4 %	812	\$ 140,136	14.5 %	424	\$ 35,040	13.1 %	449	\$ 34,094	12.5 %
Non-DBEs	2,245	\$ 1,040,908	84.6 %	1,541	\$ 824,501	85.5 %	862	\$ 233,220	86.9 %	688	\$ 238,600	87.5 %
Total	4,356	\$ 1,230,590	100.0 %	2,353	\$ 964,637	100.0 %	1,286	\$ 268,260	100.0 %	1,137	\$ 272,694	100.0 %

Figure E-3.

DBE share of MoDOT prime contracts and subcontracts for FHWA-funded by MoDOT district, July 2013–June 2018 (cont.)

	Southwest			Central			Southeast		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs									
African American-owned	51	\$ 2,311	0.4 %	39	\$ 1,087	0.2 %	37	\$ 1,895	0.4 %
Asian-Pacific American-owned	2	97	0.0	0	0	0.0	2	10	0.0
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0	0	0	0.0
Hispanic American-owned	0	0	0.0	6	30	0.0	1	9	0.0
Native American-owned	109	14,014	2.3	122	7,657	1.8	24	1,920	0.5
WBE (white women-owned)	741	59,862	9.7	611	37,514	8.6	723	37,556	8.9
Total MBE/WBE	903	\$ 76,284	12.4 %	778	\$ 46,288	10.6 %	787	\$ 41,390	9.8 %
Majority-owned	25	353	0.1	2	13	0.0	5	87	0.0
Total DBEs	928	\$ 76,638	12.5 %	780	\$ 46,301	10.6 %	792	\$ 41,478	9.8 %
Non-DBEs	1,508	\$ 537,499	87.5 %	1,160	\$ 391,111	89.4 %	921	\$ 381,374	90.2 %
Total	2,436	\$ 614,137	100.0 %	1,940	\$ 437,412	100.0 %	1,713	\$ 422,852	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

D. Prime Contracts and Subcontracts

Keen Independent examined the percentage of prime contract and subcontract dollars on FHWA-funded contracts going to DBEs. Figure 4 presents results by racial, ethnic and gender group.

Prime contracts. The study team analyzed dollars going to prime contractors based on amounts retained by prime contractors after subtracting the value of subcontracts. White women-owned DBEs obtained 1.5 percent of prime contract dollars. Minority-owned DBEs received 1.3 percent of prime contract dollars.

Subcontracts. Figure E-4 shows that women-owned DBEs received 31 percent of subcontract dollars during the study period. Among minority-owned DBEs, African American-owned firms obtained the largest share of subcontract dollars (4.9%).

Figure E-4.

DBE share for FHWA-funded prime contracts and subcontracts, July 2013–June 2018

	Prime contracts			Subcontracts		
	Number of contracts*	\$1,000s	Percent of dollars	Number of contracts*	\$1,000s	Percent of dollars
DBEs						
African American-owned	17	\$ 3,165	0.1 %	597	\$ 57,109	4.9 %
Asian-Pacific American-owned	3	515	0.0	40	1,864	0.2
Subcontinent Asian American-owned	0	0	0.0	0	0	0.0
Hispanic American-owned	4	2,197	0.1	150	12,725	0.0
Native American-owned	57	31,732	1.0	509	45,335	3.9
WBE (white women-owned)	149	47,128	1.5	4763	362,238	31.1
Total MBE/WBE	230	\$ 84,737	2.8 %	6,059	\$ 479,271	41.2 %
Majority-owned	0	0	0.0	32	453	0.0
Total DBEs	230	\$ 84,737	2.8 %	6,091	\$ 479,725	41.2 %
Non-DBEs	3,027	\$ 2,972,708	97.2 %	6,004	\$ 683,925	58.8 %
Total	3,257	\$ 3,057,445	100.0 %	12,095	\$ 1,163,649	100.0 %

Note: *Number of prime contracts and subcontracts.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source: Keen Independent from data on MoDOT contracts, July 2013–June 2018.

APPENDIX F.

Qualitative Information from In-depth Interviews, Surveys, Focus Groups, Public Meetings and Other Public Comments

Appendix F presents qualitative information that Keen Independent collected as part of the 2019 Missouri Department of Transportation (MoDOT) DBE Availability Study. It is based on input from nearly 270 businesses, trade association representatives and others.

The study team gathered input from business owners and representatives including construction, professional services, goods and other services businesses in the Missouri marketplace that serve as primes, subcontractors/subconsultants or both. Information was gathered from minority- and women business owners, as well as white male-owned firms.

Appendix F includes the following seven parts:

- A. Introduction and methodology;
- B. Background on the firm and industry;
- C. Working on projects with Missouri Department of Transportation or other public agencies;
- D. Contractor-subcontractor relationships in the Missouri marketplace;
- E. Whether there is a level playing field for minority- and women-owned firms in the Missouri marketplace;
- F. Insights regarding business assistance programs and certification; and
- G. Any other insights or recommendations for Missouri Department of Transportation and local agencies.

A. Introduction and Methodology

The Keen Independent study team conducted in-depth personal interviews and telephone, online and fax availability interviews in spring 2019 as well as collected public comments via telephone/email/mail or other means.¹

¹ In-depth interviewees are identified in this appendix as #I-01, #I-02 and so on; availability survey respondents are identified as #AS-01, #AS-02 and so on; and public comments by telephone/email/mail/other means are identified as #PCs.

Keen Independent facilitated two 90-minute in-person focus groups in March 2019 with business owners in St. Louis and Kansas City, Missouri. These focus groups included businesses that conducted work as primes, subcontractors/subconsultants, or both. The study team also led two virtual focus groups in April 2019 coordinated through the Association of General Contractors of Missouri with prime contractors of varied sizes.²

Keen Independent collected additional public comments through the study website,³ mail, the designated telephone hotline⁴ and study email address.⁵ The study team also prepared a study fact sheet for dissemination of information regarding the 2019 MoDOT DBE Availability Study.

Through the avenues described above, business owners and representatives had the opportunity to discuss their experiences in the Missouri marketplace working with MoDOT and other public agencies.

Keen Independent held two in-person public meetings and one virtual public meeting in June 2019. There were 34 participants combined at the St. Louis and Kansas City public meetings. Keen Independent also held a virtual public meeting on June 14 with 16 participants. Participants were asked for verbal and written comments concerning topics in the 2019 MoDOT DBE Availability Study. Input collected from these public meetings was incorporated into this appendix.

² Focus groups are identified as #FG-01 (St. Louis), #FG-02 (Kansas City, Missouri) and for virtual focus groups, #FG-03 and #FG-04. Each participant in a focus group is identified by a lower-case letter (e.g., #FG-01a, #FG-01b and so on).

³ <https://www.keenindependent.com/modot2019availabilitystudy/>

⁴ 816-281-6841

⁵ modot2019availability@keenindependent.com

B. Background on the Firm and Industry

The Keen Independent study team asked business owners to report on their business history and industry. Topics included:

- Business history;
- Challenges to starting, sustaining and growing a business in the industry, and any barriers to business entry;
- Geographic scope and any changes over time;
- Type of work and any changes over time;
- Business size, and any expansion and contraction over time;
- Types and sizes of contracts and changes over time;
- Public or private sector, or both, and preferences/experiences in each;
- Prime or subcontractor/subconsultant;
- Current economic conditions for firms in the industry in the Missouri marketplace; and
- Keys to business success.

Business history. The Keen Independent study team asked interviewees about their business start-up history and any barriers they faced at business launch and beyond. Business owners, including construction, professional services, goods and other services businesses, discussed when and how their businesses were established.

Businesses interviewed included varying sizes of minority- and women-owned businesses and majority businesses. Interviewees represented primes, subcontractors/subconsultants or both.

Most business owners reported having prior experience and/or longevity in their respective industries. [e.g., #I-01, #I-04, #I-06, #I-09, #I-11, #I-12, #I-13, #I-19a, #I-21a, #I-22, #I-26, #I-28, #I-29, #I-31, #I-33, #I-34, #I-37, #I-38a, #I-39] Comments include:

- The white female owner of a WBE construction firm reported that she started the firm with a business partner who had been in the construction industry for over 20 years. [#I-14]
- An African American owner of an MBE other services business reported, “I worked in the industry for over ten years I decided I wanted to start my own business.” [#I-17]
- The representative of a majority construction firm commented that the firm was started many years ago as a small contracting firm by a former superintendent of another construction firm. [#I-20a]
- A representative of an industry association reported that many of the members he represents are second- or third-generation business owners. [#TO-08]

Challenges to starting, sustaining and growing a business in the industry, and any barriers to business entry. Business owners and representatives reported on any difficulties they faced at start-up and beyond. For many of these firms, challenges they experienced at start-up persist today. [e.g., #I-27, #I-29, #I-33, #I-35, #I-37, #TO-05b, #TO-10, #AS-03, #AS-05, #AS-06, #AS-07, #AS-17, #AS-18, #AS-33, #AS-44, #AS-48, #AS-55, #AS-56, #AS-57, #AS-59, #AS-61, #AS-65, #AS-67, #AS-70, #AS-81, #AS-87, #AS-96, #AS-97, #AS-106, #AS-133, #AS-139, #AS-143, #AS-155, #AS-156, #AS-157]

Examples of comments from business owners represented a myriad of barriers that impacted starting and building their businesses. Challenges reported include gaps in business acumen, limited access to capital and other funding and bonding sources, difficulty “getting a foot in the door” to secure work and issues with prompt payment:

- An African American female representative of a trade association reported that the first challenge for new firms is “knowing the steps to take,” the second is “access to capital,” and the third is “securing contracts.” [#TO-02]
- The African American female owner of a DBE specialty services firm reported that it is difficult for her to “get in the door” because she works with new technology. She commented that she finds it difficult to bid public sector work because her company doesn’t fit in any of the established boxes on bid sheets. [#FG-01b]
- One white female owner of a professional services firm indicated that the challenges with starting a business include logistics of business formation, industry connections, access to capital and “getting your foot in the door.” She added, “Once you can feel confident that you’re able to execute the work that’s appropriate with the work scope you’ve been given ... finding and keeping staff is difficult as well.” [#I-36]
- A female survey respondent reported that the biggest barrier is having access to the information on projects, the prime contractors, getting approved for loans and bonding. She added that it is hard to bid on projects. [#AS-01]
- An African American owner of a DBE construction firm reported that the major challenge is keeping the business “sustainable.” He explained that he will perform but not get paid for up to 90 days. He later added that any delay in payment negatively impacts fuel costs, payroll and other administrative challenges. [#I-25]

Many interviewees and availability survey respondents identified access to capital to purchase equipment, increase capacity and for other business needs as challenging to business start-up and growth. These business owners reported limited access to business loans and other funding sources that had early and long-term effects. [e.g., #I-03a, #I-10, #I-19a, #I-25, #I-28, #I-29, #I-30, #I-31, #I-37, #I-38a, #TO-01, #TO-04, #TO-05b, #FG-01g, #AS-12, #AS-16, #AS-51, #AS-52, #AS-54, #AS-69, #AS-76, #AS-82, #AS-84, #AS-99, #AS-104, #AS-109, #AS-112, #AS-113, #AS-116, #AS-117, #AS-120, #AS-123, #AS-128, #AS-134, #AS-150, #AS-153, #AS-160]

For example:

- A white female owner of a WBE professional services firm remarked that starting a business in her line of work is “extremely challenging.” She reported, for example, that finding resources to invest in expensive equipment and software is one of the challenges that she has faced. [#I-13]
- The white female owner of a DBE construction company commented that obtaining capital to sustain her business is challenging, explaining that business equipment is expensive, and payment can be slow. [#I-07]

Some business owners and representatives reported being denied bank loans, entirely self-funding or using their homes or life insurance policies as business collateral. All the 25 focus group participants in St. Louis raised their hands “yes” when asked if they had ever been denied a loan for their business. Most focus group participants in St. Louis were African American business owners. Several others were white women business owners and Hispanic American business owners. [#FG-01a through FG-01y]

Some of the businesses interviewed explained specific examples. Comments include:

- An African American female representative of a professional services firm reported that the algorithm for calculating ability to get a loan bases eligibility on amount of money coming in per day, credit score and dollar amount of payables. She added that there is “no variation” among banks in this algorithm. [#FG-01d]

She explained that the eligibility algorithm being employed disadvantages small firms because they have to wait longer for payment and are often disqualified because they have too little money coming in daily. She added that this forces small businesses into tapping “hard money” with high interest rates that reduces or eliminates profit margins. [#FG-01d]

- The white female representative of a WBE construction firm reported that the white female owner had difficulty obtaining a loan when she started the business. She commented, “[The owner] was ‘laughed out of banks’ ...” She continued, “[Only one bank] would give her a loan. She was the first female they’d ever given a loan to.” [#I-04]

- An African American female owner of an DBE construction firm reported that her business has had issues obtaining financing that persist today. She commented that she had been approved for a loan but, on the day of closing, she was reevaluated, and her loan amount was decreased and later completely rejected. She commented that outstanding traffic tickets were reported as a factor in her not being able to secure the loan. [#FG-01c]
- The representative of a majority construction firm indicated that funding was an issue when his firm began. He remarked that the founder had to sell a truck to pay his employees when he was starting out, “like any small business.” [#I-20a]
- The representative of an industry association reported that banks are not often willing to loan money because of the risk associated with the type of work his members perform. [#TO-08]
- One African American female representative of a professional services firm commented, “I have clients every day that have to put their houses up as collateral.” She continued, “You have some small businesses, DBEs, buying additional life insurance policies ... [to use] as collateral.” [#FG-01d]

Prequalification is challenging for a few interviewees and availability survey respondents.

These interviewees reported difficulty with the high cost of audited financials that put small businesses at a disadvantage, and “overburdensome” prequalification requirements that are often imposed, for example. [e.g., #I-36, #AS-126, #AS-24]

Paying prevailing wage requirements is challenging to one co-owner of a construction firm. He stated, “We have to pay our guys [specified high industry] wages plus all the fringes’ There’s a big discrepancy there.” He indicated that in other industries, workers are paid quite a bit less than in his industry. [#I-02a]

Many interviewees and availability survey respondents commented that finding a “niche” as a small business among the competition from larger or more established firms created barriers for small businesses or minority- and women-owned businesses in the Missouri marketplace.

[e.g., #I-21a, #I-34, #TO-06, #AS-08, #AS-09, #AS-10, #AS-13, #AS-45, #AS-60, #AS-74, #AS-83, #AS-90, #AS-91, #AS-98, #AS-118, #AS-125, #AS-129, #AS-135, #AS-140, #AS-151, #AS-152, #AS-154] Comments include:

- The white female owner of a WBE professional services firm commented that the need “to carve out a niche of work” was the greatest challenge to starting a new business when competing with well-established firms in her business sector. [#I-13]
- An African American owner of an MBE other services firm reported, “One of the challenges was being new ... being a young, minority business owner.” He added, “Competitors will [underbid] you just to get business ... some of the bigger companies [do this].” [#I-17]

- A white female owner of a WBE construction firm indicated that her firm has tried to stay in a market “where there wasn’t an overabundance of competition.” She added that size, longevity and experience are all advantages that some firms can have over others. [#I-05]
- The representative of a majority construction firm commented that MoDOT might assist small businesses in gaining expertise in “niche fields.” [#I-10]

Several small business owners reported they were not “trusted,” or were perceived as not as qualified as established firms with more experience. For these firms, getting the experience they need to demonstrate that they have the experience they need is a “catch-22,” for example:

- A representative of a DBE professional services firm reported that a challenge for starting a business in Missouri is earning the “trust” that a newer firm can do the work. He added, “[The previous owner] said that it took her almost a year to get her first contract.” [#I-06]
- One white female owner of a WBE professional services firm reported, “I’m sure there was some hesitancy in hiring a small firm ... it’s hard to get work without already having work.” [#I-15]
- The white female co-owner of a DBE professional services firm reported that MoDOT questioned her qualifications. She commented, “I put my credentials in front of them and tried to figure out why they would ‘question’ my credentials.” [#I-12]

Some business owners reported that larger firms with greater resources have an advantage over smaller, less established businesses. Examples include:

- One female survey respondent reported that the larger general contractors get more of the bids because of their larger size and ability to function as a supplier. [#AS-02]
- One Asian American owner of an MBE professional services firm indicated that larger firms are typically sought out for projects because they have greater resources such as expensive software programs. He noted that the cost of certain software programs is too high for his firm to purchase putting him at a disadvantage when seeking opportunities. [#I-18]

Geographic scope and any changes over time. Many business owners and representatives reported where they conducted business and if they had expanded their territories over time. [e.g., #I-05, #I-12, #I-24, #I-25, #I-30, #I-33, #I-34, #I-37, #I-38a, #TO-01, #TO-05a, #TO-07, #TO-08, #TO-10]

Some business owners reported primarily defining their geographic scope based on opportunity. Comments include:

- One white female owner of a WBE construction firm reported that her firm works mostly in the St. Louis area but will travel “as far as it makes sense” within Missouri. [#I-14]
- A white female representative of a WBE construction firm reported that the firm does most of its work in the Kansas City metro area, in both Missouri and Kansas, but has worked as far away as Springfield and Maryville. [#I-04]
- An African American co-owner of a professional services firm reported that the firm pursues jobs throughout the state but is more successful in the western half of Missouri, especially in Kansas City. He reported that the firm currently works in six states but could potentially work in up to 13 states. [#I-19b]
- The representative of a majority construction firm commented that his firm started very small and has since expanded nationwide. However, he specified that most of its MoDOT projects take place within 100 miles of the Missouri headquarters. [#I-20a]

Some business owners and representatives reported that the regions where their firms conduct work have changed over time. [e.g., #I-08, #I-13, #I-15, #I-19a, #I-28, #I-30, #I-31, #I-33, #I-37, #TO-05a, #TO-07] Examples of these firms include:

- The representative of a professional services firm reported that his firm’s Missouri office was established recently. This location followed the firm’s expansion from Florida to other states. [#I-08]
- An African American co-owner of a DBE professional services firm reported that his firm shifts focus into different states when local work opportunities fluctuate. [#I-19a]

Many interviewees reported expansion into states beyond Missouri. [e.g., #I-06, #I-07, #I-11, #I-16, #I-20, #I-21a, #I-23, #I-28, #I-31, #I-32, #I-33, #I-34, #I-35, #I-36, #I-37, #TO-07] For example:

- A white female co-owner of a DBE professional services firm added that her firm has offices in other states in the eastern half of the United States. [#I-12]
- The co-owner of a majority construction firm reported that reduced funding of MoDOT led to fewer projects and as a result the firm expanded into a neighboring state to find more work. [#I-09]
- A representative of a professional services firm commented that his firm mainly works in southwestern Missouri, however, they are establishing offices in Arkansas, the Great Plains states and the Southeast. [#I-08]

- An African American male owner of an MBE goods and services firm reported that the firm works all over Missouri, throughout the United States and parts of Canada. [#I-17]
- The African American co-owner of a DBE professional services firm reported that his firm works in more than ten states. [#I-19b]

Some interviewees reported barriers to expanding their territory; primarily due to market conditions, others avoided certain locations in and outside Missouri. [e.g., #I-25, #I-28, #I-29, #I-32, #I-34, #AS-139, #AS-144, #AS-147] For example:

- The Asian American representative of a trade association indicated that, “Some firms have the capability to move into other markets, but most firms are rooted within their [original] locations.” [#TO-06]
- An African American owner of a professional services firm in the western half of the state indicated that businesses in the eastern part of the state tend to use DBEs from the St. Louis area, because those firms have local knowledge. [#I-19b]
- The white female owner of a WBE construction firm reported that she is interested in working in Illinois. She commented that she has not worked there yet because it is “logistically” challenging due to interstate regulations and union issues. [#I-14]
- A white female owner of a WBE construction firm reported that her firm is currently working in the Kansas City metro area, in both Kansas and Missouri. She added that despite having DBE certifications in other states (Indiana and Arizona, for example) the business has not yet pursued work there. [#I-03a]
- One representative of a majority construction firm reported that his firm only works in certain parts of Missouri. He commented that while his firm is willing to work across the state, the additional costs of working in distant regions make his business “uncompetitive.” [#I-10]
- One business owner reported being hesitant to expand his territory into the St. Louis and Kansas City metro areas. He explained that as an open shop, he wanted to avoid areas that rely on organized labor. [#I-09]

Two business owners reported their geographic expansion limited by low DBE availability and few DBE goals in rural areas. For example:

- One business owner reported that his geographic reach is limited by the availability of DBEs in rural areas, as well as organized labor in the larger metro areas. This co-owner of a majority construction firm reported difficulties finding DBEs in rural areas and therefore could not meet DBE goals, making projects in some rural areas not feasible or very difficult. [#I-09]

- Another business owner reported, “We would like to expand our market in rural Missouri, but without DBE goals in these areas, there is no incentive for rural firms to partner with DBE firms.” [#AS-06]

Type of work and any changes over time. Business owners reported any changes in the type of work they perform.

Most interviewees reported that their firms perform a specific type of work or offer only a few products or services. [e.g., #I-01, #I-02a, #I-03a, #I-04, #I-05, #I-13, #I-14, #I-15, #I-16, #I-18, #I-19a, #I-21a, #I-23, #I-25, #I-28, #I-29, #I-30, #I-31, #I-33, #I-34, #I-35, #I-37, #I-38a, #I-39, #TO-05a] For example, An Asian American owner of an MBE professional services firm reported that he chose to limit his services because to expand his offerings, he would need to purchase software in the \$12,000 to \$35,000 range. [#I-18]

Some interviewees reported performing in a wider range of industries, products or services. One business owner reported offering construction services as well as materials supply, others performed a range of professional services, for example:

- A representative of a majority construction firm commented that his firm works in construction and is also a supplier of construction materials. [#I-10]
- The African American co-owner of a professional services firm reported that the firm performs a range of services on many different types of large public works construction projects. [#I-19a]
- The representative of a majority construction firm reported that being “diversified” in the type of projects they work on and clients they serve is important for his firm. [#I-20b]

Some interviewees reported that the type of work their firm performs has changed or expanded over time. [e.g., #I-06, #I-08, #I-11, #I-12, #I-19b, #I-20a, #I-28, #I-31, #I-34] A number of these businesses reported changes in response to market conditions. For example:

- The white female owner of a WBE professional services firm reported that the type of work her firm performs has expanded to include expanded types of professional services. [#I-13]
- One white female owner of a DBE construction company commented that during the Great Recession, her firm “branched out” to offer other work types because of the changes in demand for certain types of construction work. [#I-07]
- The representative of a majority construction firm stated that the founder started in site development and infrastructure work before moving street repair and highway and bridge work. He added “we’re not getting as much street repair as we once did.” [#I-37]

One business trade association representative reported observing many association members expand the types of work they offered to increase their potential for business growth. This representative of a trade association reported that he has seen changes in the types of work the firms he represents perform. He added, “I’ve seen firms move into areas they feel are more profitable or has growth potential ... that has been the way many companies have grown.” [#TO-06]

Business size, and any expansion and contraction over time. Businesses discussed any changes in company size, staffing or capacity over time.

Most business owners interviewed reported that the size of their firms had expanded over time. [e.g., #I-13, #I-14, #I-15, #I-16, #I-20a, #I-21a, #I-23, #I-24, #TO-01, #I-25, #I-30, #I-33, #I-34, #I-37, #I-38a, #I-39, #TO-05b, #TO-06, #TO-10] Comments include:

- A white female owner of a WBE construction firm reported that her firm has grown its workforce by approximately 15 percent. [#I-05]
- A representative of a professional services firm commented that his firm has tripled in size within the last three years. [#I-08]
- The African American co-owner of a DBE professional services firm reported that his firm has grown from 3 to 75 employees because of expansion of out-of-state work. [#I-19b]

Despite operating seasonal businesses, a few interviewees reported relatively stable business sizes. These business owners rely on workers who are accustomed to the seasonal nature of the work they perform. For example:

- The co-owner of a majority construction firm reported that he tries to maintain a steady workload so that the size of the firm does not change. He indicated that most of his employees are seasonal. [#I-09]
- A representative of a DBE professional services firm commented, “Since I’ve worked here, we have not laid off anybody ... for lack of work.” He reported that his firm has seasonal employees who “work when there’s work and when there’s no work they go home.” [#I-06]

Other business owners and representatives indicated that their firms have downsized or contracted, or that their firms expand, and contract based on workload. [e.g., #I-28, #I-32] Some of these firms downsized, closed or never fully recovered from the impacts of the Great Recession. Other demonstrated slow recovery. Comments include:

- A representative of a trade association reported, “Several years back construction was not as hot as it is now A number of the minority [subcontractors] in the area are no longer in business because of the drought of work back then.” He added, “Now that construction is picking up, they’re finding more local work.” [#TO-03]

- The white female co-owner of a DBE professional services firm reported that the firm grew quickly in the beginning but “kind of crashed” because of the Great Recession. She added that following the Great Recession, the company “started slowly recovering” before expanding. [#I-12]
- The representative of an industry association reported that the firms represented “lost a lot of talent” during the economic downturn of 2008-2009 because of funding issues in Missouri. [#TO-04]

He added that in the past few years there has been an increase in the number of engineers but that the workforce has yet to return to the size it was before the recession. [#TO-04]

- The white female co-owner of a DBE professional services firm indicated that her firm expands and contracts in response to demand. She added, “... every time MoDOT has a downturn in funding, it affects everything.” [#I-12]

Types and sizes of contracts and changes over time. Business owners and representatives reported on whether their firms’ contract sizes have grown, decreased or stayed the same. [e.g., #I-05, #I-09, #I-15, #I-18, #I-19a, #I-23, #I-25, #I-27, #I-28, #I-30, #I-31, #I-32, #I-33, #I-34, #I-35, #TO-04, #TO-06, #TO-07]

A number of business owners reported increases in annual revenue, or contract sizes that vary depending on market conditions. These comments include:

- A white female representative of a WBE construction firm noted that ten years ago, they were doing approximately \$10 million in contracts and now they do approximately \$15 million. [#I-04]
- The representative of a majority construction firm reported that MoDOT contracts for [specified work] are \$1 to \$3 million dollars. He continued that as a prime, the firm will take a contract as small as \$500,000 but that as a sub its low-end limit is about \$25,000. [#I-20a]

Some business owners reported a wide range of contract sizes. For example:

- The representative of a DBE professional services firm commented that his firm takes on a variety of types of contracts including lump sum, hourly rate and fixed fee. He added that his firm has worked on contracts as small as \$500 to as large as \$4.5 million. [#I-06]
- A white female owner of a professional services firm stated, “We’ve done everything from a \$500 job to a \$1,000,000. The value is mostly dictated by the size of projects the client entities are putting out on the street. How [MoDOT] breaks them down depends on what team is working on them.” She added that one of the advantages of working in professional services is that projects can last multiple years which is good for projected revenue and future planning. [#I-36]

- The representative of a majority construction firm reported that the average contract is from \$50,000 private sector contracts to MoDOT on contracts greater than \$5 million. [#I-37]

A number of business owners reported that the sizes of contracts that MoDOT lets affects the size of contracts their firms perform. For example:

- The white female co-owner of a DBE professional services firm indicated, "... every time MoDOT has a downturn in funding, it affects everything." [#I-12]
- A representative of a majority construction firm reported only \$1 to \$3 million MoDOT contracts stating, "We don't see a whole lot of the \$15 million jobs anymore ... it seems like MoDOT contracts are limited." [#I-22]

Some other interviewees reported limitations that determine the types and sizes of contracts that their firms performs [e.g., #I-02a, #I-04, #I-10, #I-30, #I-34, #I-35, #I-39, #TO-04] Examples include:

- One representative of a DBE professional services firm remarked, "[Manpower] resourcing is one of our biggest issues." [#I-06]
- A white female owner of a WBE professional services firm reported that her firm is only limited in the types and sizes of contracts because of buyers' misperceptions that her firm's small size means that it can only handle small projects. [#I-13]
- The white female owner of a DBE construction company commented that her firm decides what to bid on "based on [her firm's] volume of work and what the project entails." She commented that the largest contract her firm will bid on is between \$25 million and \$30 million. She commented that her firm also avoids taking on too many contracts at once. [#I-07]
- The African American male owner of a DBE construction firm commented, "I don't want to be over extended ... so it depends on work we have going on. I want to make sure I can service the customer the way I feel is needed." He added that the proximity of one of the five plants that he has access to is another factor that determines the types and sizes of contracts. [#I-25]

Public or private sector, or both, and preferences/experiences in each. Business owners and representatives reported on any public and private sector preferences.

Most business owners and representatives reported conducting work in both the public and private sectors. [e.g., #I-02, #I-03a, #I-04, #I-05, #I-06, #I-07, #I-09, #I-10, #I-11, #I-13, #I-14, #I-15, #I-16a, #I-18, #I-19a, #I-20a, #I-21a, #I-22, #I-24, #I-25, #I-26, #I-27, #I-28, #I-29, #I-30, #I-31, #I-32, #I-34, #I-35, #I-36, #I-37, #I-38a, #I-39, #TO-01, #TO-03, #TO-04, #TO-07, #TO-08, #TO-10] For example, a representative of a trade association reported the firms he represents complete both public and private sector work stating, "The most successful companies are not just tied to one segment." [#TO-06]

A few business owners preferred working in one sector over the other. Many of these businesses preferred public sector work, for example:

- The white female co-owner of a DBE professional services firm reported that her firm works mostly in the public sector because “[they] don’t trust the private sector” due to past negative experiences. [#I-12]
- A representative of a majority construction firm prefers working in the public sector. He commented that his firm has had problems with prompt payment in the private sector but never in the public sector. [#I-10]

Prime or subcontractor/subconsultant. The study team asked business owners and representatives whether they worked as a subcontractor/subconsultant, prime or as both.

Many interviewees reported working as both a prime and a subcontractor/subconsultant.

[e.g., #I-02, #I-06, #I-07, #I-08, #I-09, #I-10, #I-12, #I-13, #I-15, #I-16a, #I-19a, #I-20a, #I-21a, #I-22, #I-24, #I-26, #I-28, #I-29, #I-31, #I-33, #I-34, #I-35, #I-36, #I-37, #I-38a, #I-38b, #I-39, #FG-02b, #TO-01, #TO-03, #TO-07, #TO-08, #TO-10] For example:

- The white female co-owner of a DBE professional services firm commented, “In a good year, 70 percent of our work is prime.” She added that when the firm first started, they were more often a prime, but over time, other companies viewed the firm as “a good DBE teammate,” leading to more subconsultant work. [#I-12]
- An Asian American owner of an MBE professional services firm reported that he usually works as a subcontractor but that he has worked as a prime contractor on some projects. [#I-18]

Many of the business owners interviewed reported working on MoDOT jobs. Some of these business owners reported working as prime contractors to MoDOT. [e.g., #I-03a, #I-06, #I-07, #I-11, #I-12, #I-13, #I-15, #I-21a, #I-27, #I-28, #I-30, #I-34, #I-37] Other business owners reported working as subcontractors/subconsultants to primes conducting MoDOT work. [e.g., #I-12, #I-13, #I-18, #I-26, #I-38a] Examples of the subs include:

- A white female representative of a WBE construction firm indicated that the bulk of her firm’s work is conducted as a subcontractor on MoDOT and Kansas Department of Transportation projects. [#I-04]
- The white female owner of a WBE construction firm commented that her firm has worked as a subcontractor for MoDOT. She added that her firm has done several MoDOT projects and has more “lined up” for this year. [#I-14]

Current economic conditions for firms in the industry in the Missouri marketplace.

Interviewees reported on the economic conditions in the local marketplace, including public and private sector arenas.

Some business owners expressed that the economy is good or improving. [e.g., #I-33, #I-36, #I-39]. One reported that the economy has improved post 2008. Two reported seeing new businesses opening. Two others reported that their work is plentiful largely because competition is limited or that many firms closed during the Great Recession that have not been reopened. Comments include:

- The white female owner of a WBE professional services firm reported that there are good opportunities in the economy and that it has improved since 2008. [#I-13]
- A white co-owner of a woman-owned construction firm indicated that current economic conditions are good. However, he commented that the good economy is associated with increased competition: “There’s a lot more competition out there now ... You have a lot of [new] companies opening up.” [#I-02a]
- The representative of a trade association reported, “Lately, I’ve connected with [more minority tech companies] ... developers who are doing business online.” He added, “I’m seeing a younger [ownership] trend ... both of those are encouraging.” This representative also reported that he has seen an increasing number of women business owners in recent years. He commented that he believes the number of resources available for women and increasing media focus on women entrepreneurs have resulted in more woman-owned businesses. [#TO-03]
- A white female representative of a majority-owned construction firm reported that the economy is on the “upswing” but that in part that is because a lot of companies went out of business when conditions were not as good. [#I-34]
- An African American male owner of a DBE construction firm reported that market conditions are favorable. He added, “There is a very short supply of companies that do what I do ... so when there is an opportunity ... on a public job, the contractors have maybe a handful of companies in order to get that participation number ... so it’s favorable. [#I-25]

Some interviewees reported on current economic conditions that affect their firms' ability to secure opportunities. Some expressed that the current "ebb and flow" of the economy disadvantages small businesses most. Others reported that current economic conditions are not good or not as good as they would like. [e.g., #I-38a, #TO-02, #TO-04, #TO-05a, #TO-06, #TO-10, #FG-04i, #AS-21, #AS-22] For example:

- The Asian American owner of an MBE professional services firm remarked that work "ebbs and flows" depending on the economy and that when the economy is down, small firms are hurt the most. [#I-18]
- One representative of a DBE professional services firm commented that without more contracting jobs available, his company cannot grow. He commented, "We've gotten as big as we can, and we can't get much bigger ... without cannibalizing somebody else." [#I-06]
- The African American female owner of another professional services company indicated that a recent slowdown in the availability of work has affected her ability to pursue additional work opportunities. [#I-01]
- An industry association representative reported that Missouri has a "bipolar" construction market. He added there are people that are not willing to fund the industry with tax dollars, but that they want ... government to fix the roads and bridges. [#TO-08]
- One firm reported that the health of the Missouri marketplace is dependent on MoDOT letting work. This representative of a professional services firm commented that MoDOT is moving some of its work in-house, so her firm has seen less work in the Missouri marketplace. [#I-08]

Other interviewees reported mixed impressions about the Missouri economy, especially when seeking opportunities to work on MoDOT projects and other public sector jobs. [e.g., #I-29, #I-32, #I-37] Comments include:

- One male survey respondent reported that there needs to be more funding for new highway projects. [#AS-32]
- An African American co-owner of a professional services firm remarked, "Just because the economy is doing better, doesn't mean that tax money gets divvied out to [our industry] ... I think if 85 percent of our work would be in the private sector, there would be a direct correlation between how the economy is doing and how our business is doing." [#I-19b]
- The representative of a majority construction firm indicated that MoDOT has spent less on highway construction since the economic downturn of 2008-2009 and that this is having a negative effect on his firm. He reported that in the mid-2000s, there was close to a billion dollars' worth of contracts in some areas but that number has dropped to \$500 million or possibly even \$325 million. [#I-20a]

- One owner of a majority construction firm reported that “this is the most difficult market in the history of [their] company.” He commented that this is largely due to the “lack of funding mechanisms at the state and federal level.” He reported that revenue has decreased since 2016, with a “slip in ‘17, a cliff in ‘18 and no light at the end of the tunnel in ‘19.” [#I-28]
- A representative of a DBE professional services firm indicated that the current economic conditions for companies in his field in the Missouri marketplace were just “okay.” He also commented that the inability to raise the gas tax has limited the amount of work in his firm’s field. [#I-06]
- The co-owner of a majority construction firm commented that the Missouri marketplace has been “stagnant” since 1992. He commented that funding cuts at MoDOT have decreased the number of projects and therefore the amount of work firms can conduct. He compared Missouri’s marketplace to that of Arkansas. He expressed that Arkansas has a better economy and more opportunities for work because of voter-supported taxes to fund transportation projects. [#I-09]
- A representative of a majority construction firm reported that MoDOT has a funding issue. He commented, “Unfortunately there’s just not enough money to go around and that’s a difficulty for all of us.” [#I-11]
- The white female co-owner of a DBE professional services firm reported that transportation funding and high competition in the firm’s industry affect the firm’s ability to get work. She added, “We have a good niche ... [however] there’s a lot of competition and that’s why we’re looking for a [another] market.” [#I-12]
- A survey respondent reported, “Deregulated trucking has created more competition and has lowered the price, which affects the profit ... it’s like 50 men going after one rabbit.” He added that this is compounded by competitors that do not play by the same rules. [#AS-64]

Keys to business success. The study team asked interviewees to describe factors that contribute to their and others’ business success. Business owners and representatives were asked generally what gives one firm in the industry an advantage over another. Responses were broad. [e.g., #I-10, #I-12, #I-18, #I-24, #I-30, #I-33, #I-34, #I-35, #TO-01, #TO-07, #TO-10]

Many spoke broadly of skilled business acumen and expertise as key components of business success. These business owners demonstrate the importance of “leader-readiness,” planning ahead, meeting schedules, staffing up and following a prepared business model, for example:

- One female representative of a supportive services provider reported that operational structure and “leader-readiness” are factors necessary for success. [#TO-09]
- The white female owner of a WBE professional services firm reported that offering an excellent product, great communication with the client and sticking to the schedule and budget are the keys to her firm’s success. [#I-13]

- One white female owner of a WBE construction firm commented that “expertise” is a key contributor to her firm’s success. She added that her office and business expertise has set them apart from other DBEs because she is able to do the paperwork, make sure the insurance is correct, handle payroll and other administrative tasks. [#I-14]
- The white female owner of a WBE professional services firm commented that “keeping overhead low” was important to her business’ success. She explained that she saves money by not having a physical office space or offering employee benefits. [#I-15]
- The representative of a professional services firm reported that his firm recently adopted a new operating system which allows his firm to “set goals, set core values and really ...refine things.” [#I-08]
- One white female owner of a WBE construction firm commented that her firm is “really good at the paperwork-side of things.” She added that they have all of their “compliance-type stuff” in line. [#I-03a]
- A white female owner of a DBE construction firm reported that the firm’s business model and the background of people at the firm contribute to their success. She added that the firm is fiscally conservative, financially responsible and is an active member of multiple industry associations. Regarding her overall approach to business, she remarked, “There’s a motto in this industry: we’re all only one bad job away from going out of business ... you can’t have a hiccup; you can’t afford it.” [#I-26]

Many business owners and representatives agreed that success was achieved through networking, relationship-building and securing repeat customers. [e.g., #I-06, #I-11,#I-15, #I-16a, #I-23, #I-26, #I-28, #I-29, #I-30, #I-31, #I-32, #I-35, #I-37, #I-38a, #TO-04, #TO-03, #TO-05a, #FG-03c, #AS-98] For example:

- The white female owner of a WBE professional services firm commented that relationships with customers are very important. She offered that managers at public agencies give preferential treatment to those they have better relationships with, for example. [#I-13]
- A white female owner of a WBE construction firm commented that relationships were key. She commented, “I don’t get work with companies that I don’t have a relationship with [already].” [#I-14]
- The white female representative of a WBE construction firm commented that relationships with prime contractors are a primary factor in their success. She commented, “We are a DBE that they trust.” [#I-04]
- A representative of a trade association reported, “We put a lot of stake in relationship-building here ... people do business with people they like, know and trust.” He added, “[We promote] the folks here in [our region of] Missouri who have the ‘grit’ to stick to it and be the best they can be.” [#TO-03]

- The Asian American male owner of an MBE professional services firm reported that “relationship networks” are the primary advantages one firm may have over another. He remarked that clients and primes prefer to work with people they are comfortable with. He added that he had relationships with employees at MoDOT from previous projects but that since then, some of those people have left the agency, making working with them now a greater challenge. [#I-18]
- The representative of a professional services firm reported that his firm noted that their diverse leadership team has helped his firm succeed. He added, “[When] we get a client, we try not to lose them ... some of our clients we’ve had ... since the beginning.” [#I-08]

Many interviewees reported keys to business success as built on quality work and products, a strong reputation and work ethic, and superior customer service. [e.g., #I-01, #I-06, #I-13, #I-15, #I-16a, #I-20a, #I-23, #I-28, #I-30, #I-33, #I-35, #I-36, #TO-07, #TO-08] Comments from the in-depth interviews include:

- The white co-owner of a woman-owned construction firm indicated that prime contractors use his firm because of its “reputation.” He explained, “A lot of them know me from years back.” [#I-02a]
- A representative of a trade association reported that successful businesses overcome adversity, have a good work ethic and exceed customer expectations. He added, “They’ve got to have a great product or a great service ... they will stand out among competitors if they’re doing the best.” [#TO-03]
- One white female owner of a WBE construction firm commented that her business partner brought a reputation of experience and relationships. She commented, “The general [contractors] that he used to work for ... they were very open to talking with us because they knew his ‘reputation’” [#I-14]
- One white female owner of a professional service firm reported simply doing “more” for her clients. She remarked, “I think sometimes we overcommit and spend more time, money and energy to finding a solution to a problem and helping our clients ... we do that more than some of our largest competitors. [#I-36]

Many business owners and representatives reported that hiring and retaining qualified staff and skilled allocation of staffing resources contributes significantly to business success. [e.g., #I-01, #I-04, #I-06, #I-07, #I-10, #I-13, #I-14, #I-15, #I-18, #I-20a, #I-21a, #I-22, #I-26, #I-27, #I-29, #I-30, #I-31, #I-32, #I-37, #I-39, #FG-03b, #TO-04, #TO-06] For example:

- A white female owner of a professional services firm commented that hiring the ‘right employees’ is key to “keeping the machine going,” for example. [#I-36]

- A representative of a majority construction firm commented that because his firm is an employee-owned company, his firm’s employees “take pride in what they do.” He also noted that his firm tries to “work with” subcontractors and suppliers rather than “take advantage” of them. He added, “We treat everybody with respect, we believe in communication” [#I-11]
- The African American co-owner of a professional services firm reported that company “culture” plays a critical role in the success of the firm. He commented that the firm only lost two employees in 2018, which he considered a success. He also added that the business model is set-up to move staff around depending on where work is needed. He reported that when there was a downturn in the economy, they moved staff from projects in Missouri to another state, for example. [#I-19a]

For many interviewees and availability survey respondents, hiring the qualified staff they need for business success presents challenges or is particularly difficult. [e.g., #I-02, #I-12, #I-16a, #I-35, #TO-08, #AS-07, #AS-19, #AS-23, #AS-29, #AS-30, #AS-35, #AS-36, #AS-38, #AS-40, #AS-41, #AS-42, #AS-43, #AS-47, #AS-50, #AS-53, #AS-62, #AS-63, #AS-66, #AS-68, #AS-71, #AS-72, #AS-77, #AS-79, #AS-83, #AS-85, #AS-95, #AS-98, #AS-100, #AS-102, #AS-107, #AS-108, #AS-111, #AS-120, #AS-121, #AS-123, #AS-127, #AS-132, #AS-138, #AS-141, #AS-142, #AS-145, #AS-147, #AS-149, #AS-158] Comments include:

- The white female owner of a WBE construction firm described a catch-22 when hiring. She explained that because she doesn’t have enough employees she cannot bid on larger contracts, and because she doesn’t have large contracts, she can’t afford to hire the employees she needs. [#I-14]
- A representative of a professional services firm reported that “building staff” was an early difficulty for his firm that made achieving success a challenge. [#I-08]
- The white female owner of a DBE construction company reported that workforce development is a significant barrier to expanding her firm’s territory. She commented, “Finding the right people who are willing to learn a trade ... it’s a challenge” [#I-07]
- An availability survey respondent reported that there is currently a shortage of qualified employees in the market. [#AS-25]
- The male survey respondent reported, “The younger workforce is unskilled and unmotivated. Schools have brainwashed kids into believing that working outside and getting dirty is beneath them. This problem exists across all communities and groups that we hire from.” [#AS-115]
- One representative of a union-house majority construction firm reported on-going hiring challenges. She indicated that hiring is challenging because the firm cannot pick its own employees as it must use employees provided by the union. She remarked that the union does not have much staff diversity which makes it difficult for her firm to meet goals. [#I-34]

The importance of securing and maintaining equipment and having access to favorable equipment and materials pricing were important, for some. [e.g., #I-01, #I-02, #I-12, #I-13, #I-22, #I-29, #FG-03b, #TO-01] Comments include:

- One white female owner of a DBE construction company commented that having access to new equipment has been one key factor in her firm's success. [#I-07]
- A white co-owner of a woman-owned construction firm reported that small firms are at a disadvantage because they cannot purchase materials in bulk and get discounts. [#I-02]

Access to capital, access to bonding and low-cost insurance are keys to success for many businesses. [e.g., #I-02, #I-07, #I-14, #I-22, #I-25, #I-31, #FG-03c, #FG-04i, #TO-06, #TO-07, #AS-23, #AS-28] As reported earlier in this appendix, many business owners reported barriers to securing the business funding they need to start and build their businesses. Building relationships with banks, bonding and insurance agents is the answer for some business owners, for example:

- One female representative of a supportive services provider reported capital availability and access to funding as necessary factors for business success. [#TO-09]
- A representative of a trade association reported, "Every business needs capital to start or expand ... you have to have a great plan if you're applying for funding." He added, "Lenders want to know what you're doing ... if you have the ability to pay Capital can be a burden as well." [#TO-03]
- One representative of a construction firm commented that his firm can get a good bonding rate despite being a small business because they've built a relationship with the bonding agent and have a good reputation. [#I-24]
- The representative of a trade association reported, "Bonding is part of doing business ... and you have to be bonded to do public sector work." [#TO-01]
- An industry association representative reported that the industry is capital intensive and risk averse. He added in the construction industry, you have a higher threshold for scrutiny since firms pledge their assets to get bonded and as a guarantee that the project will be completed. [#TO-08]

Business owners, industry association representatives and other supportive services providers interviewed reported on coaching and other business assistance that can help business owners achieve success. These interviewees discussed a myriad of available services that aid small business start-up and beyond. [e.g., #TO-01, #TO-05a, #TO-07, #TO-10] Some reported on available resources in Missouri, for example:

- One white female owner of a DBE construction company reported that specialized programs to help WBEs get access to banking, insurance, and bonding services have been an “advantage” for her firm. She specifically mentioned the Metropolitan St. Louis Sewer District “mobilization” payment program for DBEs to help with initial cashflow. [#I-07]
- The representative of a trade association reported that the association works with minority- and women-owned businesses in Missouri. He commented that the association has three main areas of focus; advocacy, networking and capacity building. He added that each month the association has networking events for all member firms. [#TO-03]
- A representative of a trade association reported that they provide services to women business owners who are “looking to launch, grow or pivot their businesses.” She remarked that her association works with financial and human resources consultants to assist small, women-owned businesses and also assists firms in navigating the certification process. She remarked, “I try to make our office a one-stop-shop.” [#TO-02]
- A representative of a trade association reported, “We provide that kind of training, coaching and consultation to DBE firms” [#TO-06]

C. Working on Projects with Missouri Department of Transportation or other Public Agencies

Business owners and representatives were asked about their experiences regarding opportunities for contracts with MoDOT. Topics included:

- Experiences working with MoDOT or other public agencies;
- Deciding to pursue opportunities with MoDOT; and
- Any barriers that might affect minority- or women-owned businesses in learning about or participating in contracts with MoDOT or other public agencies.

Experiences working with MoDOT or other public agencies. Business owners and representatives reported their work with or interest in working with MoDOT or other public agencies in Missouri. For example, an Asian American owner of an MBE professional services firm is one example of a business with a long history of working on MoDOT contracts. [#I-18]

Some interviewees reported negative experiences while seeking work or working with MoDOT. These business owners indicated changes in the definition of DBEs, smaller contract sizes coming out of MoDOT or problems with prime contractors on MoDOT jobs, for example:

- One white female owner of a professional services firm indicated that extending territory is difficult while working with MoDOT because of the lack of funding the entity receives. She added, “The ... the definition of [a] disadvantaged business has changed so more people are playing in that pot.” [#I-36]
- A representative of a majority construction firm reported that they will perform [a specified average number of] MoDOT contracts a year ranging from \$1 million to \$3 million. He added, “We don’t see a whole lot of the \$15 million jobs anymore and it seems like MoDOT contracts are ‘limited’ in what needs to be performed.” [#I-22]
- A Native American female representative of a construction firm reported that she has stopped bidding on MoDOT contracts because the primes are too difficult. She remarked that she will not pursue these contracts again until MoDOT puts more effort into ensuring they pay promptly and treat subs better. [#AS-26]
- One business representative of a majority supply firm reported a challenge to getting approval of their business system to secure work with MoDOT. [#I-23]

Others reported positive experiences working with MoDOT or some other public agencies in Missouri. [e.g., #I-02a, #I-05, #I-06, #I-07, #I-11, #I-15, #I-16a, #I-18, #I-20, #I-21a, #I-22, #I-23, #I-24, #I-25, #I-26, #I-27, #I-34, #I-37, #I-38b, #I-39, #FG-02b, #TO-01, #TO-08, #FG-01] These business owners and representatives indicated appreciation for MoDOT because of its “proactive and supportive” culture and “systematic” bidding process, as well as for other reasons. Some reported strong relationships with MoDOT that help them get work.

- The white female owner of a WBE construction firm commented that MoDOT jobs are some of her “favorites” to get. She commented that “out of all [her] contracts” she gets quicker payments from MoDOT. She added that the bidding process is systematic with MoDOT. She commented, “I get all the information that I need.” [#I-14]
- A white female co-owner of a DBE professional services firm reported that her firm has always had “a really good relationship” with MoDOT. She added, “They’re very ‘proactive and supportive’ ... rarely have any issues.” [#I-12]
- A representative of a trade association reported that he’s worked with MoDOT for a “number of years.” He commented, “We’ve had [yearly] connections with the offices [regarding] certifications, trainings and MoDOT speaking at our events.” He added, “We have a great relationship [with MoDOT].” [#TO-03]

Deciding to pursue opportunities with MoDOT. The study team asked business owners and representatives to summarize why and how they bid MoDOT. For some of these firms, their process is the same when bidding work for other public agencies.

Many business owners and representatives discussed what motivates them to pursue opportunities with MoDOT. [e.g., #I-03a, #I-05, #I-07, #I-11, #I-12, #I-14, #I-15, #I-16a, #I-21a, #I-22, #I-24, #I-25, #I-28, #I-29, #I-30, #I-31, #I-32, #I-34, #I-37, #I-39, #TO-01, #TO-10] Some of these business owners weighed whether to bid as a prime or a sub, for example:

- The white female owner of a WBE professional services firm reported that her firm first decides if it is qualified and then determines if MoDOT will “perceive them as qualified.” She commented that if the firm believes there is little chance of being selected by MoDOT as a prime contractor, they will look to partner with another firm as a subcontractor. [#I-13]
- The representative of a DBE professional services firm commented that for prime-contracting jobs, he primarily looks at the size of the contract. He added that when deciding whether or not to be a subconsultant on a MoDOT project, he “look[s] at what [his firm] can offer a prime to make sure that they are comfortable with selecting [his firm].” [#I-06]
- A representative of a majority construction firm reported that his firm monitors the projects posted on the MoDOT website and reviews the annual Statewide Transportation Improvement Program, which is MoDOT’s five-year plan for transportation projects. [#I-10]

Some reported that bidding to MoDOT is “not worth the effort” because the likelihood of award is low particularly for small businesses, or that they did not like bidding to general contractors on MoDOT jobs that have a “price in mind.” Examples follow:

- An Asian American owner of an MBE professional services firm remarked that it is not worthwhile for him to put the time into creating a proposal for MoDOT because it is unlikely that they will award a contract to a small firm. [#I-18]

Another business owner would not compete with firms having “existing relationships” with MoDOT. Regarding MoDOT, this white female owner of a professional services firm commented that her firm will not go out and compete against “existing relationships” because the market is down, and it is not worth her effort. [#I-36]

- The white female representative of a WBE construction firm commented that her firm sees who is bidding on large MoDOT projects and then sends a quote to be a sub. She remarked that sometimes they get “asks” from general contractors looking for a DBE with a price in mind but that they do not like to do it that way. [#I-04]

Other interviewees discussed multiple challenges when trying to learn about work opportunities with MoDOT or the local agencies. [e.g., #I-03a, #I-04, #I-30, #TO-10, #AS-78, #AS-93, #AS-114, #AS-130, #AS-136, #AS-137, #AS-146] Some reported that

- The white female owner of a WBE professional services firm reported that “lack of time” is a challenge. She commented that her firm must be in constant contact with various entities and always needs to schedule meetings, phone calls and check websites for updates on projects. [#I-13]
- A white female owner of a WBE professional services firm reported, “It’s hard to get ahead of them.” She added, “A lot of people have the same feeling ... you don’t know much about the projects until [they] come out and then you feel it’s too late.” She commented that some firms know about projects before they are posted, giving them an advantage, while disadvantaging others. [#I-15]
- As a small business with limited staffing, an African American co-owner of a professional services firm reported difficulty finding out about bidding opportunities with MoDOT. He commented, “We try to hear about it before the actual [MoDOT] RFQ comes out. That’s a challenge ... a struggle we need to internally deal with, but typically when we find out about it, it is after the RFQ comes out.” He reported looking to other consulting firms to team with once they have enough information about a project. He added that, typically, his firm is not privy to the information that larger firms have and can only support two in-house staff to check various websites for projects. [#I-19b]

- One representative of a majority construction firm reported that the MoDOT website support team is not knowledgeable about the site so they cannot guide users through the process. He added that the letting schedule often only gives one month from the time a project is released until the time the bid is due and that this is too short of a time frame to create an accurate proposal. [#I-20a]
- A white female owner of a professional services firm commented that there is “not enough time” to put together a team in the bidding time frame that currently exists from MoDOT. [#I-36]
- One female survey respondent reported that it is difficult to learn about work opportunities with MoDOT because there is a lack of information from MoDOT. [#AS-110]
- The representative of a DBE professional services firm reported that he has trouble learning about local contract opportunities because there are so many municipalities. He commented, “There are 88 municipalities. If there’s a challenge, [it’s that] there’s too many of them” He noted that he cannot build relationships with individuals in these smaller municipalities because there are so few jobs in them it’s not worthwhile. [#I-06]

Others indicated fewer challenges learning about work opportunities with MoDOT and other public agencies. [e.g., #I-11, #I-21a, #I-23, #I-26, #I-28, #I-31, #I-34, #I-37, #I-38a, #FG-04d]

A few interviewees reported on the sources they use to identify bidding opportunities. [e.g., #I-07, #I-04, #I-30, #I-31, #I-34, #I-37, #I-38a]. Some reported using websites, “bid services” and other online information sources. Many relied on information disseminated through relationships they built with MoDOT staff, primes or subs. Examples follow:

- The representative of a majority construction firm reported that his firm reported that his firm maintains frequent communication with MoDOT and other agencies regarding the letting and scope of upcoming projects. [#I-10]
- A representative of a professional services firm reported that his firm subscribes to “bid services” which alert his firm of RFPs. He added that “relational business development” also allows his firm to hear about business opportunities. [#I-08]
- One representative of a majority construction firm reported that they “actively canvas” for jobs and watch the letting schedule. He indicated that it varies whether the firm reaches out to a prime first or vice versa. He added that everything is electronic now, so the plan holders list is easily accessible and that they receive emails about projects. [#I-20a]

- Several business owners relied on MoDOT “email blasts and website posts with job opportunities” and MoDOT “bulletins.” [#I-12, #I-09, #I-06]
- The white female owner of a WBE construction firm reported that general contractors will reach out to her firm when they need her firm’s specialty. [#I-14]

Any barriers that might affect minority- or women-owned businesses in learning about or participating in contracts with MoDOT or other public agencies. [e.g., #I-14, #I-19a, #I-21, #I-25, #I-26, #I-29, #I-30, #I-31, #FG-04d, #TO-07, #AS-14, #AS-75, #AS-88, #AS-89, #AS-93, #AS-94, #AS-103, #AS-105, #AS-122, #AS-124]

Business owners and representatives discussed barriers that specifically affect minority- or woman-owned businesses in learning about or participating in contracts with MoDOT or the local agencies. For example, when referencing MoDOT, the white female co-owner of a DBE professional services firm reported that small, minority- and women-owned firms have trouble “navigating that huge association.” [#I-12]

A number of minority and women business owners identified “bias” and other barriers related to bidding and securing work with MoDOT and other public agencies. Some minority and women business owners reported difficulty building “trust” in their work and “capabilities.” Some of these business owners also reported “hit-or-miss” interpretations of civil rights standards. Comments include:

- An industry association representative indicated that if DBEs do not have the “trust” of primes or relationships with primes, they will not have the access to many projects. [#TO-08]
- A female survey respondent remarked that “being a minority female causes difficulties in getting [her] foot in the door and getting opportunities to be successful.” [#AS-27]
- The white female owner of a WBE professional services firm reported, “There can be biases or assumptions made about certain individuals, whether they’re ‘capable’ of doing the work.” [#I-15]
- One white female co-owner of a DBE professional services firm commented, “[Public agencies] don’t interpret the guidelines well ... they don’t have a civil rights representative working with them, or it’s hit-and-miss.” [#I-12]

Some business owners of majority construction firms indicated that MoDOT’s procurement system and paperwork requirements are particularly challenging for minority- and women-owned businesses that are often small or newer in their industries. For example:

- A representative of a majority construction firm commented that MoDOT’s “paperwork requirement” is overwhelming for DBEs because they are usually “mom and pop operations.” [#I-11]

- One white representative of a majority construction firm reported that the lack of a helpful website affects access to contracts with MoDOT because DBEs are usually new to the business so have more to learn. He added that if a firm receives their DBE certification from another agency, they are even less likely to be familiar with the MoDOT letting process. [#I-20a]
- The representative of a majority construction firm commented, “I do not believe that all DBE firms have the ‘understanding or the ability’ to access MoDOT’s system They just don’t have the understanding and knowledge to use that system efficiently.” He continued, “We get very poor responses from DBEs on contracts.” [#FG-04b]
- The representative of a majority construction firm commented that having employees that spend a large portion of their time monitoring project opportunities is important putting smaller, minority- and women-owned firms at a disadvantage when seeking new work. [#I-10]

Some other interviewees reported small size as a disadvantage when seeking work with MoDOT. [e.g., #I-33, #I-39, #AS-08] For example, the white female owner of a WBE professional services firm remarked, “I was not selected for projects ... we were not large enough.” [#I-15]

D. Contractor-Subcontractor Relationships in the Missouri Marketplace

Business owners and representatives were asked how they perceive contractor-subcontractor relationships. Topics included:

- General perceptions of prime-sub relationships; and
- Efforts to include subcontractors.

General perceptions of prime-sub relationships. The study team asked business owners and representatives to discuss contractor-subcontractor associations. [e.g., #I-20a, #TO-01, #TO-09]

Some business owners and representatives reported that subcontractors are at a disadvantage in prime-sub relationships. Comments include:

- The white female owner of a DBE construction firm reported, “Most of the time the general contractors [in Missouri] are ‘not your friend’ I would rather work for an out-of-town general contractor than for a local one.” [#I-26]
- One white female owner of a DBE construction company commented that subcontractors are automatically at a disadvantage. She remarked, “It’s the nature of the beast.” She added that although there are some reputable prime contractors that treat subcontractors fairly, there are a few “bad apples” that treat subcontractors unfairly. [#I-07]
- An African American owner of a DBE construction firm remarked, “The primes go into the project with the mindset that [they’re] paying [DBEs] undeservingly more ... so the relationships with the primes are ‘contentious’ because they feel that [DBEs] are taking away part of the profit.” [#FG-01i]
- The white female co-owner of a DBE professional services firm reported that her firm has to consider itself lucky to work with larger firms. She added, “You help them win a project ... afterwards it’s a totally different picture.” [#I-12]

Some indicated that communication between prime and subs can drive success, or when poor, result in failure. For example:

- The representative of a majority construction firm noted that the biggest issue for him with subcontractors is a lack of communication. He commented that subcontractors who are off schedule on occasion can be forgiven if they communicate their situation and plans to the general contractor. [#FG-03g]
- The representative of a DBE professional services firm commented that general contractors often do not inform him which other firms will be subcontractors on a given project. He remarked, “Who’s is my teammate? You would think you would want that synergy.” [#FG-02b]

Efforts to include subcontractors. Interviewees commented on subcontractor engagement.

Many discussed their firm's efforts to hire subcontractors/subconsultants and suppliers and how they are selected. [e.g., #I-03a, #I-05, #I-06, #I-09, #I-15, #I-16a, #I-21a, #I-25, #I-28, #I-29, #I-30, #I-31, #I-33, #I-34, #I-35, #I-37, #FG-03c, #FG-04d, #TO-01, #TO-04] For example:

- The white female owner of a WBE professional services firm reported that the firm checks the qualifications and capacity of potential subcontractors to ensure that they would be an appropriate choice for the project. [#I-13]
- A white female representative of a WBE construction firm commented that her firm only hires subcontractors for one field and that they have one firm that they usually use. She commented, "We use them because we know they're going to show up on time, they give us fair prices and we have that relationship with them." [#I-04]
- The representative of a majority construction firm commented that subcontractors solicit his firm with bids when projects are published. He added that he will also send out emails and make phone calls to ask for bids. [#I-10]
- A white female owner of a DBE construction company reported that when her firm hires subcontractors, the most important factor they look for is experience. She added that because her firm subcontracts out jobs they cannot perform, they need a subcontractor who is "knowledgeable and qualified to do the work." She also noted that subcontractors need to be insured and be able to decide on a mutually agreeable price with her firm. [#I-07]
- The representative of a majority construction firm commented, "Most of the time, the lowest price will get the work." He added that his firm will occasionally select a higher priced bid in order to avoid subcontractors that have not "live[d] up to [his firm's] expectations." He commented, "Sometimes, you spend more money to babysit a subcontractor, so you have to weigh that in when they're actually the low bid." [#I-11]
- A representative of a majority construction firm indicated that his firm uses a web-based program to manage bid solicitations. He reported that the firm also meets and hires subs through attending industry meetings, conducting market research for national projects, searching databases, networking at outreach events and reaching out to contacts. [#I-20a]
- The representative of a majority construction firm reported that reputation, service, availability and the ability to work with a company are important factors when he hires subcontractors. [#FG-03e]
- One representative of a majority construction firm commented that his firm solicits potential subcontractors asking for bids. He noted that some firms decline to bid because they are busy. He commented that this makes it difficult for his firm to find DBEs and meet contract goals. He added that because the market is doing so well right now, a lot of DBE firms are even busier. [#FG-04i]

- A male owner of a construction supply firm indicated that some supply firms compete against their customers for public contracts. He said that these supply firms artificially inflate the price of materials for customers they bid against. [#PC-02]

Interviewees discussed their firm’s efforts to include DBE firms and other small businesses in public contracts. Many reported making efforts to include DBEs [e.g., #I-05, #I-08, #I-09, #I-11, #I-12, #I-13, #I-15, #I-16a, #I-18, #I-20a, #I-21a, #I-25, #I-26, #I-28, #I-29, #I-30, #I-31, #I-33, #I-34, #I-35, #I-37, #I-39, #TO-01, #TO-04, #TO-06, #TO-07, #TO-10, #FG-03a, #FG-03e, #FG-04b, #FG-04d, #FG-04e, #FG-04i, #AS-34] For example:

- A white female co-owner of a DBE professional services firm commented that her firm “absolutely” tries to include DBE firms by meeting people at DBE events. [#I-12]
- The representative of a majority construction firm reported that his firm receives a list from MoDOT Civil Rights that specifies DBE goals on projects and provides a list of contractors and suppliers capable of performing work on those projects. He added that his firm will contact DBEs from the list and ask for bids. He commented that he solicits up to 80 DBEs but only receive responses from four or five. [#I-10]
- The white female owner of a DBE construction company indicated that her firm makes efforts to hire MBE/WBEs due to contract goal requirements with the Metropolitan St. Louis Sewer District. She added that there are MBE/WBEs that her firm has worked with and trusts and that they will hire these firms even if there are no requirements to hire DBEs on a given project if they are best for the job. [#I-07]
- A representative of a majority construction firm commented that his firm participates in the DBE mixers and that they specifically send out solicitations to “willing and able” DBE firms. [#I-11]
- The representative of a DBE professional services firm reported that his firm never specifically looks for DBE firms for certain roles because his firm can meet the goal themselves. He commented, “Who is the best one who can help us win this job and deliver it is how we look at it.” He continued, “If there has been DBEs that we like and have worked with and they’re helping us out, we’re glad to help them out” [#I-06]
- The female representative of a DBE construction firm remarked, “When we are prime, we try to utilize [DBEs] whenever we possibly can ... to give them a chance.” She commented that a lot of primes won’t utilize DBEs without a contract goal. [#FG-02c]
- One representative of a majority construction firm reported that his firm posts solicitation of upcoming jobs on his firm’s website and on social media. He added that his team will call or email DBE firms. [#FG-04a]
- An industry association representative reported that the association wants to be the solution of the diversity problem in Missouri and that they encourage the firms represented to include DBE firms in public contracts. [#TO-08]

- A representative of a DBE professional services firm reported that MoDOT is more concerned about hiring the best team rather than checking a DBE box, unlike the Illinois Department of Transportation. He added, “I like that [a contract] is not selected solely based on [any specific type of DBE’s inclusion].” [#I-06]

Some interviewees discussed whether they face any challenges or barriers when hiring and/or working with small, minority- or woman-owned businesses. [e.g., #I-04, #I-06, #I-08, #I-09, #I-11, #I-26, #I-28, #I-30, #I-31, #I-34, #I-37, #I-39, #TO-10, #FG-03c, #FG-03e, #FG-04c, #FG-04d, #FG-04h, #PC-04, #AS-37, #AS-46, #AS-73, #AS-92] Some interviewees said they had sometimes or often had difficulty involving DBEs or other small firms in projects. For example:

- A representative of a majority construction firm reported that his firm works with mostly the same DBEs on many projects. He added that his firm is often “partnering” with DBE contractors in order to “get them over the finish line” so that his firm can meet its goals. [#FG-04i]
- A representative of a majority construction firm reported difficulties meeting DBE goals. He noted that DBEs are not able to make competitive bids on projects far from the large metropolitan areas where they are generally located. [#I-10]
- A white female owner of a DBE construction company reported that it can be difficult to get in contact and get paperwork done with small firms because the owner is often overworked. [#I-07]
- The white female owner of a WBE professional services firm reported, “In one instance there was a [minority-owned business] that was too busy ... they were late on a project because they had too much work.” [#I-15]
- An owner of a majority construction firm reported that it is difficult to find DBE firms in his field. He added that his firm has worked with mostly the same DBEs many times. [#I-16a]
- A representative of a majority construction firm reported that hiring some DBEs can be difficult because they require earlier payment to meet payroll requirements. [#I-20a]

He added that the list of DBEs that MoDOT provides is not the true availability. He added that he has seen flower shops listed as potential subs for highway work as well as a guardrail installer that has been out of the business for 15 years. [#I-20a]

- A representative of a trade association commented, “The goals are getting higher [for] the state.” He also indicated that there is a lack of participation which makes meeting the goals more difficult. He reported that primes will ask a subcontractor for a bond in order to engage work. He added, “That’s a risk these primes are taking when working with a DBE that is not bonded ... the prime bonds the job.” [#TO-01]
- The representative of a majority construction firm reported that DBEs are not willing to work long term on projects in more rural areas. He remarked, “It’s very difficult for

us to get any participation from a St. Louis or a Kansas City DBE that has to mobilize multiple times on a project in the out-state area. They're just not willing to do that and it drives their cost up." [#FG-04f]

- The representative of a majority construction firm commented that he occasionally has DBEs who “are not able to perform” and that his firm will sit “right behind them” to ensure the work gets done. [#FG-04c]
- One representative of a majority construction firm reported that many times newer DBEs underperform. He commented, “[DBEs] don’t know what they’re doing a lot of times when they come in and do work.” He remarked that these DBEs often have trouble following all the rules and procedures set by MoDOT. He noted that this can reflect poorly on his firm’s annual review with MoDOT, which considers subcontractor performance. He indicated that this disincentivizes his firm from hiring newer DBEs. [#FG-04e]
- The representative of a majority construction firm reported that there are DBE firms on the highway list that don’t actually do highway-related work. He remarked, “I will make 600 phone calls [to DBEs] and maybe get three quotes we weren’t expecting.” He noted that he has no difficulty working with the DBE firms he has previously worked with because they are familiar with all of the necessary reporting procedure. [#FG-03a]
- A representative of a majority construction firm commented that he calls all firms listed on MoDOT’s DBE list but only receives responses from 15 percent and a quote from 5 to 10 percent. He remarked that this is “not a very good ratio.” He commented that finding DBE firms is a “struggle” and that it takes many hours to contact them. He commented, “In a lot of cases, you have people [on the MoDOT list] that ... don’t do services that are typically required on a DOT contract.” [#FG-03b]
- The owner of a majority construction firm commented that his firm works in a more rural area of Missouri and that they don’t have “the choices that the metropolitan areas have for minority contractors who want to work.” He continued, “We’ve got a very limited list of who can do this work ... If the market is such that they’re getting busy ... it really takes some arm twisting to get [DBEs] to give you a price and when that happens, the price goes way up.” [#FG-03d]
- A representative of a majority construction firm commented that he has had a few DBE subcontractors fail to perform on projects with MoDOT. He commented that he usually alerts MoDOT to the issue but that MoDOT prefers not to intervene but rather let these issues be solved through reputation. [#FG-03g]

- The representative of a trade association commented, “I would say ... getting the DBEs to quote the work is tough. We’ve been working with MoDOT quite a bit to try and make the program as successful as we can. MoDOT has been providing us a list of firms they’re considering on a project level ... our contractors have been contacting everyone on those lists and requesting quotes on each bid. They contacted over 274 DBE [asphalt] firms... they got 18 responses. On another job, they contacted the same amount and got 6 responses. On another job they contacted 52 DBE firms and got 11 responses. On another job they contacted 113 and got 9 responses and 76 with 13 responses.” [#TO-01]
- A male survey respondent reported, “When bidding as a prime on MoDOT projects we experience issues with getting enough DBE participation This past year MoDOT started providing a list of ready, willing, and available DBE’s but they are not always willing to travel to the area of work and may be booked up so as not to exceed their maximum allowable revenue and maintain their DBE status.” [#AS-159]

A few interviewees discussed how prime contractors/consultants are encouraged to include subcontractors/subconsultants, including DBE firms or other small businesses. [e.g., #I-08, #I-15, #I-20a, #I-26, #I-27, #I-28, #I-30, #I-33, #I-34, #I-37, #I-39, #TO-07, #TO-10] For example:

- The white female owner of a WBE professional services firm commented that methods of encouraging inclusion vary from entity to entity. She added that MoDOT consistently provides a DBE requirement and that her firm usually surpasses its DBE requirement. [#I-13]
- A white female co-owner of a DBE professional services firm reported, “On the design side, there’s a real culture of DBE participation MoDOT does a good job of [setting that expectation].” She added, “[Firms] get more favorable project reviews when they include DBEs ... there’s a good climate for DBE sub participation.” [#I-12]
- The owner of a majority construction firm reported that the biggest encouragement to hire DBE firms is to “meet the goal established in the contract.” He indicated that he gets the list of DBE firms from MoDOT and makes solicitations and phone calls to them but rarely gets bids from new DBE firms. [#I-16a]
- A Native American female co-owner of a DBE construction firm reported that primes are not encouraged to meet DBE goals. She stated that some employees at MoDOT do not pressure contractors to meet goals. She remarked that if primes were encouraged, MoDOT would not call DBEs to check if they had been contacted. She noted that there are certain times when a prime genuinely is not able to use a DBE but added that “if the same contractor cannot find a DBE ten times in a row, then maybe the problem is with the contractor.” [#I-31]
- The white female owner of a DBE construction firm indicated that general contractors don’t give minority- or women-owned businesses the opportunity to negotiate their work on a project. [#I-26]

- An industry association representative reported that on longer projects, there is a greater commitment and relationship between primes and subs. He added that shorter projects provide less of an incentive for primes and subs to build relationships. [#TO-08]

A few interviewees reported on how prime contractors and subcontractors find out about public and private sector work for MoDOT or the local agencies. [#I-04, #I-06, #I-07, #I-14, #I-15, #I-19, #I-21a, #I-26, #I-27, #I-28, #I-30, #I-31, #I-32, #I-33, #I-34, #I-37, #I-39, #TO-01, #TO-04, #TO-07] Comments include:

- A white female owner of a WBE professional services firm commented that MoDOT sends out emails and holds an annual meeting with a project manager who describes upcoming projects. She added that the state also holds a similar annual meeting and publishes projects on its website. [#I-13]
- The Asian American male owner of an MBE professional services firm reported that he finds work through networking and talking with contacts about upcoming projects. [#I-18]
- A representative of a majority construction firm reported that checking the MoDOT website, maintaining large communication networks and participating in associations are the ways that his firm finds out about public and private sector work. [#I-10]
- The owner of a majority construction firm indicated that his firm finds out about MoDOT work from the website. He reported that many subcontractors learn of MoDOT work through the website and plan holders list and then contact general contractors bidding on the project. [#I-16a]
- A representative of a majority construction firm reported that subcontractors find out about work with his firm through MoDOT’s website, through the Associated General Contractors of Missouri website and through solicitations that his firm specifically sends out. [#I-11]
- One representative of a professional services firm commented that primes receive a list from a regulatory agency of which firms are DBE and then asks colleagues if they have had good experiences with the firms. If no one has worked with a particular DBE, they might invite them in to be “for, lack of a better term, interviewed.” [#I-08]

Some business owners and representatives discussed whether small or certified firms would be successful in obtaining work on public sector contracts without special efforts to hire them. [e.g., #I-31, #I-32, #I-33, #I-34, #I-37, #TO-10] Comments include:

- A white female owner of a WBE professional services firm reported that it would be difficult for small or certified firms to be successful in obtaining work on public sector contracts without the efforts of firms like her own. She commented, “It’s hard to gain work without experience ... it takes good primes to include subs to gain experience.” [#I-15]

- The representative of a DBE professional services firm reported that he does not believe new, small firms would be successful without a set aside. He added, “It’s very difficult for anybody to start anything” [#I-06]
- An African American female owner of a DBE construction firm commented that a general contractor asked to meet with her about a potential MoDOT project. She commented that over the course of the meeting, some private projects this general contractor was working on were mentioned and when she expressed interest in bidding on those projects, the general contractor discouraged her by stating “Don’t worry about [those jobs]. We don’t need you on those jobs.” She commented that the general contractor only wanted her bid if the job had DBE requirements. [#FG-01c]
- A representative of an industry association reported that it would be harder to build relationships without contract goals. He added, “Once [the primes] build these relationships, they start to understand that the relationship trumps race.” [#TO-08]

How do primes generally find out about public and private sector work? For MoDOT specifically? [e.g., #I-03a, #I-15, #I-27, #I-28, #I-29, #I-31, #I-32, #I-33, #I-34, #I-37, #TO-01, #TO-10]

- The white female co-owner of a DBE professional services firm reported that primes find out about MoDOT work through “email blasts” or on the MoDOT website. [#I-12]
- A white female owner of a WBE construction firm indicated that her firms learns about MoDOT opportunities from the website and that they receive information about potential job opportunities as a member of the Heavy Constructors Association. [#I-05]
- The representative of a majority construction firm reported that subcontractors find out about work with his firm through MoDOT’s website, through the Associated General Contractors of Missouri website and through solicitations that his firm specifically sends out. [#I-11]
- A representative of a DBE professional services firm commented that his firm finds out about MoDOT work from the bulletin and from meeting with officials from MoDOT. [#I-06]
- One representative of a majority construction firm reported that networking events and reaching out to contacts are important for finding work. He added that checking the MoDOT letting schedule online and their email subscription to hear about jobs is important in finding out about MoDOT projects. [#I-20a]

How do subs generally find out about public and private sector work? For MoDOT specifically?
[e.g., #I-05, #I-07, #I-15, #I-21a, #I-26, #I-27, #I-28, #I-29, #I-34, #I-37, #TO-01]

- The white female co-owner of a DBE professional services firm reported that subs can find out about public and private sector work by making phone calls and reaching out to primes to team up with them. [#I-12]
- A white female representative of a WBE construction firm reported that her firm learns about work from the MoDOT website. [#I-04]
- The Asian American male owner of an MBE professional services firm reported that he monitors websites for project listings but also maintains contacts that can give him updates. He commented that he has a good reputation, so some primes reach out to him for jobs. [#I-18]

E. Whether There is a Level Playing Field for Minority- and Women-Owned Firms in the Missouri Marketplace

The study team asked whether there is a level playing field in the Missouri marketplace for minority- and women-owned businesses and other small businesses. Topics include:

- Whether there is a level playing field overall for minority- and women-owned firms or other small businesses in the Missouri marketplace;
- Issues with prompt payment;
- Denial of opportunity to bid;
- Unfair rejection of bid;
- Submitting bids or proposals and not getting feedback;
- Bid shopping and bid manipulation;
- Double standards and stereotyping for certified, minority- or women-owned firms when performing work, and any unfair treatment regarding approval of work for these firms;
- “Good ol’ boy” and other closed networks;
- Unfavorable work environment for minorities or women;
- Knowledge of false reporting of good faith efforts or front companies;
- Specifically, unfair treatment by MoDOT during performance of work;
- Any other unfair treatment or disadvantages for small businesses, woman-owned or minority-owned businesses in the Missouri marketplace; and
- Suggestions to address barriers or disadvantages for minority- and women-owned firms in the Missouri marketplace.

Whether there is a level playing field overall for minority- and women-owned firms or other small businesses in the Missouri marketplace. Many business owners and representatives reported that, in the Missouri marketplace, there was not a “level playing field” for minority- and women-owned businesses [e.g., #I-01, #I-03a, #I-05, #I-08, #I-15, #I-19, #I-25, #I-26, #I-28, #I-29, #I-31, #I-32, #I-35, #FG-01a, #FG-01d, #TO-05a, #TO-07, #TO-10] For example:

- A white female owner of a WBE professional services firm commented that there have been efforts to level the playing field. She remarked that unfortunately DBEs are grouped in the same category in bids for a project so that they are competing against each other. [#I-13]
- The Native American female co-owner of a DBE construction firm reported that primes would give jobs to firms with a bid that was lower than what she could buy supplies for. She remarked that much of this is because she is a woman. She added that she has even been told to have her husband call the prime instead. [#I-31]

- One white female owner of a WBE construction firm reported that minority- and women-owned firms do face additional challenge because there is a “stigma.” She commented that using the word “disadvantaged” in the DBE name is unhelpful because “disadvantaged” implies low quality. She added that DBE firms are usually small and small firms have issues with cashflow, credit and pricing. [#I-14]
- The white female co-owner of a DBE professional services firm reported that when requirements for DBE involvement on projects are dropped, “participation drops.” She added, “We think we’re on a level playing field, but when push comes to shove, we’re not.” [#I-12]
- An Asian American male owner of an MBE professional services firm reported that there is not a level playing field. He added that there are only a few small firms that perform the same work as his firm, putting the small firms at a disadvantage. [#I-18]
- A representative of a trade association indicated that there is not a level playing field for minority- and women-owned firms in Missouri due to the size of DBE firms and the type of work these firms specialize in. [#TO-03]
- The representative of a DBE professional services firm remarked, “If it were [a level playing field], we wouldn’t be at this table having a conversation.” [#FG-02b]
- A representative of a majority construction firm noted that his firm will receive bids from non-DBE firms for upcoming projects but has to seek out and specifically solicit DBE firms. He commented, “If it was a level playing field, the solicitation wouldn’t be as necessary because those firms would be looking at the same lists and looking at the same work.” [#FG-03a]
- An industry association representative reported that there is “absolutely not” a level playing field for minority- and women-owned firms in the Missouri marketplace. He added, “If there was a level playing field, we wouldn’t need [a DBE program].” [#TO-08]

Several business owners reported that subcontractors/subconsultants avoid disputes with primes, for fear of a ruined reputation. Examples follow:

- The African American female owner of an DBE professional services firm reported that her firm cannot afford to dispute issues with general contractors because of the potential loss of “relationship capital.” She indicated that a dispute can ruin a subcontractor’s reputation and prevent them from obtaining future work. [#FG-01e]
- The African American male owner of a DBE professional services firm indicated that “fighting” with a general contractor can give a subcontractor a bad reputation in his industry’s “small community.” He commented, “Even the guys that like you and know your work, they become more concerned because they think you’re going to sue them.” [#FG-01j]

Some business owners and representatives said that DBEs have an advantage over other firms. [e.g., #I-28, #I-30, #AS-58, #AS-86, #AS-106, #AS-114, #AS-118, #AS-119, #AS-137, #AS-161, #AS-162] For example:

- The representative of a construction firm commented that capable DBE firms have an advantage over non-DBEs. He commented that he knows of majority subcontractors who have bid low and lost out on work to DBEs because of contract goals. [#FG-03c]
- A representative of a majority construction firm commented that the playing field is “slanted to the DBEs.” [#FG-03g]
- The representative of a majority construction firm indicated that the playing field is not level. He commented, “Everyone has access to the same jobs.” He added, “If you’re a DBE you probably have a pretty significant tilt in your direction versus those of us that are not a DBE.” [#FG-04c]
- One representative of an industry association reported that minority- or women-owned businesses face fewer challenges due to DBE participation goals on projects. [#TO-04]
- An availability survey respondent reported, “It hurts when women in business get contracts because they are women even though we are cheaper.” The respondent referred to the DBE program as the “affirmative action program.” [#AS-58]

Some business owners and representatives indicated that there is a level playing field in the Missouri marketplace. [e.g., #I-09, #I-27, #I-20a, #TO-01, #TO-06, #FG-04a, #FG-04f, #FG-04h] Comments include:

- The representative of a majority materials supply firm commented that there is a level playing field. He added that all firms face the same challenges in business. [#I-23]
- A representative of a majority construction firm commented, “Any contractor out there interested in doing work for MoDOT has an equal opportunity to access that information and see out work ... I feel that the playing field is very level ...” [#FG-03b]
- The owner of a majority construction firm indicated that the playing field is level since there are a lot of opportunities and outreach programs to assist DBE contractors currently. [#FG-03d]
- A white representative of a majority construction firm commented that 30 or 40 years ago things were different but that now the playing field is level for women and minorities. He noted that there could be problems that he has not experienced or witnessed. [#I-10]

Issues with prompt payment. Many interviewees provided comments about untimely payments, for some MoDOT’s payment practices causes barriers for certified and small firms. [e.g., #I-01, #I-04, #I-15, #I-25, #I-26, #I-27, #I-28, #I-29, #I-31, #I-32, #I-34, #I-35, #I-37, #I-38a, #TO-03, #TO-04, #TO-05b, #TO-06, #TO-07, #TO-08, #TO-10, #FG-04b] For example:

- The representative of a majority materials supply firm commented, “If a subcontractor does not submit paperwork correctly to the general contractor, it delays payment.” He added, “Some DBE subcontractors are undercapitalized and do not have enough office personnel.” [#I-23]
- An African American female owner of a DBE professional services firm commented that her firm often waits more than 90 days to receive payment. She commented that it is difficult to get general contractors to meet their obligations to pay in the time frame specified in the contract. She suggested that MoDOT “have somebody that [businesses] can call and that can help resolve those issues.” [#FG-01e]
- The African American male owner of a DBE construction firm commented, “The biggest problem is MoDOT.” He commented that MoDOT used to pay every two weeks but now they wait for general contractors to bill them and then there’s a 45-day waiting period after that. [#FG-01g]

The same owner added that prime contractors will ask his firm for a credit report. He commented, “How in the world is my credit going to be any good when it’s taking [general contractors] ... 90 to 100 days to [pay me]?” [#FG-01g]

- A representative of a majority construction firm reported that many small firms avoid MoDOT because of the lag in payment of up to 30-40 days. He remarked, “Some of these companies can’t afford to eat that type of cashflow for that long.” He added that he will often work with these firms to provide early payment but that can cause issues if there end up being problems with the quality of work or paperwork. [#FG-04d]
- The white female owner of a WBE construction firm reported that “cashflow” is difficult for small businesses who are subcontractors. She commented that subcontractors don’t get paid until general contractors get paid and that “a lot of small companies like [mine] can’t necessarily work off of that.” [#I-14]
- A white female owner of a professional services firm remarked, “Sometimes I have to carry the burden of payment for six months and that eats at my profit.” [#I-36]
- An African American owner of a DBE construction firm remarked that prime contractors will deduct payments from his firm unjustifiably. [#FG-01i]

Some interviewees indicated that they have not witnessed or experienced any negative issues with prompt payments, especially with MoDOT. [e.g., #I-05, #I-06, #I-07, #I-08, #I-11, #I-13, #I-33, #I-39] For example:

- The white female co-owner of a DBE professional services firm reported that MoDOT pays primes within 15 days, though the primes often do not pay the subs promptly. [#I-12]
- One white female owner of a construction firm reported that the firm has no issues with prompt payment on government jobs. However, she reported that when working for other contractors they receive untimely payment. She commented, “It’s tough being a small business [and waiting for payment].” [#I-02b]
- The Asian American male owner of an MBE professional services firm reported that there are issues with prompt payment from private sector jobs but not in the public sector. [#I-18]
- A representative of a majority construction firm commented that prompt payment has not been an issue in public sector work but it relatively common in private sector work. [#I-10]
- An African American male co-owner of a professional services firm reported that there is “no such thing” as prompt payment in their industry. [#I-19a]
- The owner of a majority construction firm reported issues with prompt payment on commercial jobs but that he had no complaints with prompt payment on MoDOT jobs. [#I-16a]
- A co-owner of a majority construction firm reported that he has not experienced issues with prompt payment. He added that in a previous role before he owned the firm, he saw local agencies not paying contractors on time. He noted that he did not experience untimely payments from MoDOT. [#I-09]
- The white female owner of a WBE construction firm reported that prompt payment can be a barrier to working with some public agencies. She commented that MoDOT pays “okay,” and that most payment-related issues are with City of Kansas City. [#I-03a]

Denial of opportunity to bid. Some interviewees reported knowledge or experience with denial of opportunity to bid. [e.g., #I-07, #I-12, #I-14, #I-26, #I-29, #I-32, #I-35, #TO-10] For example:

- The white female owner of a construction firm reported that some bids require union affiliation, prohibiting her firm from bidding. [#I-02b]

- The co-owner of a majority construction firm reported the denial of an opportunity to bid in the private sector but not the public sector. He commented that bidding for some private projects was “by invitation only” and that his firm has not always been invited. [#I-09]
- An African American male owner of a DBE construction firm remarked, “I’m pretty sure that there’s no one in [the focus group] that hasn’t had some instance in which they’ve been blacklisted.” He recounted that he once reported a general contractor for bad practices on a job and his firm suffered. He noted that his firm’s sales declined between 35 and 40 percent the following year. [#FG-01g]
- A male availability survey respondent reported, “I am tired of reverse discrimination ... I don’t think I should not be allowed to bid on something because of my race ... [bidding] should be based on financial situation.” [#AS-04]

Most interviewees indicated that they have not witnessed or experienced any issues with denial of opportunities to bid. [e.g., #I-04, #I-05, #I-06, #I-08, #I-10, #I-11, #I-13, #I-15, #I-16a, #I-18, #I-27, #I-28, #I-30, #I-31, #I-33, #I-34, #I-37, #I-38a, #TO-04]

Unfair rejection of bid. Some interviewees reported knowledge or experience with unfair rejection of a bid. [e.g., #I-03a, #I-14, #I-15, #I-19, #I-29, #I-30, #I-35, #I-38b, #TO-04, #TO-07, #TO-10] For example:

- The white female owner of a WBE professional services firm commented that some bids are unfairly rejected based on the firm’s size instead of its capacity [#I-13]
- The African American owner of a DBE construction firm reported that he is the only minority-owned supplier in the area for a good essential to most highway construction. He commented that he has bid thirty times without winning a job. He added, “I should have stumbled into at least one [project].” [#FG-01i]
- A white female co-owner of a DBE professional services firm commented, “On design build-work ... we put in a lot of sweat equity on proposals ... then the company we were working with rebid all of the work to other companies.” She added, “We were under the impression that we would get a third of the [work] and that didn’t happen.” [#I-12]
- An African American co-owner of a professional services firm reported that the firm is treated unfairly regarding LPA projects. He commented that the firm that writes a grant for an LPA project usually wins the bid, regardless of the bidding process. He commented, “MoDOT tells us it’s not supposed to go that way, but it does.” He added, “It’s hard to [place] blame on the firm because they’ve actually got skin in the game, but at the same time, that precludes us from a lot of local work.” [#I-19b]
- The white female owner of a professional services firm commented that her firm was rejected from bidding on a project without explanation. She added, “There was another instance that we were specifically told that we were too small.” [#I-36]

- An owner of a majority construction firm reported that it is unfair that low-bid firms that perform low quality work are chosen over high quality firms. [#I-16a]
- A white representative of a majority construction firm remarked, “We’re usually the ones that have to figure out the DBE portion of a project. Say we are a prime for an asphalt job and the work scope requires patching. We will take bids from both DBEs and non-DBEs. We will have conversations with the non-DBEs, and they would ask how they did. I would say you were the lowest bidder, but we couldn’t use you because you’re not a DBE.” [#I-22]

Some business owners indicated that they have not witnessed or experienced any issues with unfair rejection of bids. [e.g., #I-02, #I-04, #I-06, #I-08, #I-09, #I-11, #I-18, #I-26, #I-27, #I-28, #I-33, #I-37]

Submitting bids or proposals and not getting feedback. Lack of feedback from a prime or public entity causes challenges for small or certified firms. [e.g., #I-29] Comments include:

- The white female owner of a WBE construction firm commented, “We don’t really get a lot of feedback from the primes when we bid as a sub. It’s pretty rare to actually know where we stand with our numbers.” [#I-03]
- A white female owner of a DBE construction firm reported that she will often bid on projects and never find out who was ultimately awarded the job. She commented, “It is harder to find who was awarded the job than bidding the job.” [#FG-01]

Bid shopping and bid manipulation. Business owners described their experiences with or knowledge of bid shopping and bid manipulation. [e.g., #I-05, #I-14, #I-20b, #I-25, #I-26, #I-28, #I-29, #I-30, #I-31, #I-34, #I-35, #TO-01, #TO-06, #TO-08]. Comments include:

- The white female owner of a WBE professional services firm indicated that bid shopping is common in the private sector. [#I-13]
- A white female owner of a DBE construction company commented that unfair rejection of bid and bid shopping happen “all the time.” She commented that these issues are most prevalent when her firm is a subcontractor. [#I-07]
- The co-owner of a majority construction firm remarked that he had heard stories about bid shopping and bid manipulation but clarified that his firm would not ever partake in the practice. [#I-09]
- A white female owner of a WBE construction firm reported that she “guarantee[s]” that bid shopping and bid manipulation happen. She indicated that some primes “go back and use their friend” after soliciting bids from certified firms. [#I-03]
- The representative of a majority materials supply firm remarked, “Some subcontractors do [bid shop] and [MoDOT] knows who does it....” [#I-23]

- An African American owner of a DBE construction firm commented, “I’m so tired of hearing [general contractors] say it costs more money to do business with minority- and women-owned companies. It costs less.” He commented that general contractors will engage in bid shopping to drag down prices. [#FG-01g]

Some interviewees indicated that they have not witnessed or experienced any bid shopping or manipulation. [e.g., #I-04, #I-06, #I-08, #I-11, #I-15, #I-16a, #I-18, #I-27, #I-32, #I-33, #I-37, #I-38a, #TO-04] For example:

- One representative of a majority construction firm reported that occasionally subcontractors will call asking for a target number for a bid but clarified that his firm does not engage in these types of bid shopping practices. [#I-10]
- The co-owner of a WBE construction firm indicated that the firm has not witnessed or experienced bid shopping first-hand. However, he commented, “I know it happens.” [#I-02a]

Double standards and stereotyping for certified, minority- or women-owned firms when performing work, and any unfair treatment regarding approval of work for these firms. Many business owners commented that double standards and stereotyping is prevalent in the marketplace. [e.g., #I-01, #I-07, #I-13, #I-26, #I-29, #I-31, #I-33, #I-34, #I-36, #I-38a, #TO-05a, #TO-06, #TO-07, #TO-08, #TO-10] There was a wide range of comments about these types of unfair treatment based on race, gender and DBE status:

- The white female co-owner of a DBE professional services firm commented, “DBE firms are always needing to prove themselves. The benefit of the doubt is never there.” She added, “Every time you get a project, you’re on trial ... you’re trying to prove that you’re as good as someone else.” [#I-12]
- A representative of a trade association reported, “Sometimes when a minority- or women-owned firm works on a project that doesn’t go well, the issuer of the contract will be reluctant to [hire a minority- or women-owned firm in the future].” [#TO-03]
- The white male representative of a DBE professional services firm reported that there are double standards for DBE firms because of a “perception that DBEs put out less than quality work.” [#I-06]
- A white male representative of a majority materials supply firm reported that there are double standards for women but noted that “things have improved.” [#I-23]
- The white female representative of a WBE construction firm noted that many people doubt her ability to run a construction firm because she is a woman. She commented, “As a WBE, as a white woman, everybody assumes my white husband runs the business.” [#I-04]

- An African American female representative of a professional services firm reported that she was given a higher price to rent equipment because the owner hasn't had a "good experience with MBE/WBEs." [#FG-01d]
- The white female owner of a WBE construction firm reported, "It is a male-dominated industry, so a lot of the times ... males don't want to use you or they feel like you actually have an advantage if you have a certification You have to prove yourself." [#I-03a]
- An African American female representative of a trade association commented that women often do not have the same opportunities as men and have to "prove themselves more so." She recounted a situation where a female business owner had to consider whether or not to attend a meeting with a client herself or send a male employee. [#TO-02]
- The white female owner of a WBE professional services firm commented that there is a "social barrier" in the professional services industry for women because it is a male-dominated field. [#I-13]

She added that men do not always have "comfortable conversations" with her as they do with male peers. She indicated that males often go to baseball games and talk about business during the game. In comparison, she remarked that if she were to ask a male in her field to go to a baseball game, it would be considered "a social faux pas or pass at him." She summarized, "It's more difficult in a male-dominated field for a female to identify opportunities." [#I-13]

- An African American female representative of a construction firm commented that her firm lost out on a job because the same materials supplier gave her firm a higher price. She commented that she was given a higher price because the supplier thinks that "black folks don't pay and DBEs don't pay so they have to put a markup on the materials." [#FG-01h]
- The African American female owner of a construction firm reported that on MoDOT jobs some inspectors give them a hard time because they are a DBE. She added, "It's like they resent us and look at us like we've been given [work] without earning it." [#I-29]

Other interviewees indicated that they have not witnessed or experienced any stereotyping or double standards for these groups. [e.g., #I-08, #I-09, #I-11, #I-14, #I-15, #I-16a, #I-18, #I-27, #I-37, #I-39, #TO-04, #FG-03a] For example:

Interviewees discussed whether there is any unfair treatment regarding approval of work for certified firms, minorities and women in the Missouri marketplace. In general, interviewees who discussed this topic did not report any knowledge of unfair treatment regarding approval of work for these groups. [e.g., #I-06, #I-07, #I-08, #I-11, #I-15, #I-16a, #I-18]

“Good ol’ boy” and other closed networks. Many interviewees discussed closed networks that could negatively affect minority and female business owners, or others outside a network.

Interviewees discussed whether “good ol’ boy” networks or closed networks exist that affect firms in the Missouri marketplace. Many interviewees commented on whether such networks have a negative effect on minority or women-owned firms. [e.g., #I-01, #I-03a, #I-15, #I-31, #I-34, #I-35, #TO-05, #TO-07, #FG-01m, #FG-02c] Comments include:

- The white female owner of a WBE professional services firm reported that closed networks exist. She remarked that a male employee at her firm was able to make “enormous strides” in forming business relationships outside of the firm earlier than female employees that had worked at the firm for a longer period. She commented that this was due to industry’s greater acceptance of males in the field. [#I-13]
- A white female co-owner of a DBE professional services firm responded, “... there are a lot of industry activities I don’t get invited to.” She added, “[Industry activities] are where a lot of deals get made ... where a lot of relationships are built.” [#I-12]

When asked about the types of industry activities that she isn’t invited to, she remarked, “Baseball games and golf trips ... I like baseball as much as anyone” [#I-12]

- An African American male co-owner of a professional services firm commented that he is from the generation that “sat at the back of the bus” and that some of his white peers are in charge now and still have that old mentality. [#I-19]
- The white female owner of a DBE construction company indicated that her industry in the St. Louis area is a “tight-knit” group that has been around for many years. [#I-07]
- A representative of a trade association indicated that “good ol’ boy” networks exist in the Missouri marketplace. He commented, “People have worked in their own small circles for so long, it’s a habit ... you don’t look outside of those circles.” He added, “That can be a negative barrier That’s why we emphasize networking.” [#TO-03]
- The African American male owner of a DBE construction firm commented, “It’s a ‘good ol’ boy’ system and [none] of us [are in it].” He continued, “If you aren’t in their system then you don’t get [any] work.” [#FG-01g]
- An African American female owner of a DBE other services firm commented that she used to attend the meetings to connect general contractors to DBEs but found that they weren’t useful. She remarked, “It seemed like [the general contractors] had a network of people that they were using and getting all the contracts and we weren’t going to get anything.” [#FG-01n]
- The white female owner of a DBE construction firm commented, “[Majority businesses] look at any set aside programs and ask, ‘When are there going to be set asides for us old, white guys?’” [#I-26]

- A representative of a business assistance association commented that the construction industry is “dominated by a ...network of a few dominant players and they’re going to keep it that way.” He continued, “There’s no incentive to the existing network of dominant players to accept outsiders or others into the playing field.” [#FG-02d]
- A Hispanic American female owner of a WBE/MBE professional services firm reported that one of the reasons that she started her firm was because these networks exist and she wanted to push back against that mindset that just majority men can succeed in the field. [#I-33]
- The representative of a majority construction firm reported that a “good ol’ boys” network affects not only minority- and woman-owned firms but other firms that are not in that network. He added that he feels the effects of the closed networks most strongly in the St. Louis area and in southeastern Missouri. He added that firms in the network called in fake reports to try to discredit his firm. [#I-30]
- The white representative of a professional services firm commented on the barriers firms new to the Missouri face, “You’re new to the area so you have to work your way [up], get your name known” [#I-08]

Some interviewees reported that “good ol’ boy” networks do not cause barriers, that nothing could be done to change their existence or that they are good for some minority- and women-owned businesses. [e.g., #I-27, #I-38a] For example:

- The Asian American male owner of an MBE professional services firm reported that “relationship networks” are the primary advantages one firm may have over another. He remarked that clients and primes prefer to work with people they are comfortable with. He added that he had relationships with employees at MoDOT from previous projects but that since then, some of those people have left the agency, making working with them now a greater challenge. [#I-18]
- He also remarked that there is always a “good ol’ boys” network and that it will always be that way because people only want to work with people with whom they are comfortable. [#I-18]
- The African American male owner of a DBE construction firm reported that a “good ol’ boy” network exists. He added, “It’s not necessarily a bad thing. A history of working together is a good thing. There are companies out there that utilize me as a “good ol’ boy” because they know I do a good job and they know some other minority companies might not have the capacity do the work.” [#I-25]
 - One white representative of a DBE professional services firm reported that “good ol’ boy” network exists in the minority community. He remarked, “I think the “good ol’ boy” network is within the minority firms.” He added that there are a few minority-owned firms which have gained a “comfort level” with the large firms which makes it difficult for newer DBE firms. [#I-06]

Some interviewees reported no knowledge of “good ol’ boy” networks or other closed networks, or that it was just “networking.” [e.g. #I-16a, #I-20, #TO-04] For example:

- The white representative of a construction firm commented that he is not aware of any “good ol’ boy” networks in his industry because everything is “cost-driven.” He added that there are instances where firms prefer to work with those they have already worked with before because there is a “comfort level” and they know these firms will do a “good job.” [#I-24]
- The representative of a majority construction firm commented that in the past, the term “good ol’ boys” network was used but that now it’s just called networking. He noted that everyone needs relationships to conduct business. [#I-37]
- The white representative of a majority construction firm that there are no specific disadvantages for minority- or women-owned firms. He commented, “If you’re qualified and can do the work ... the lowest price wins the work.” He added, “If a DBE is competitive, they have the advantage to ... do the work in Missouri.” [#I-11]

Unfavorable work environment for minorities or women. Some interviewees reported experience with or knowledge of unfavorable work environment based on gender or race. [e.g., #I-01, #I-05, #I-07, #I-13, #I-28, #I-29, #I-31, #I-34, #I-36, #TO-05a, #TO-07] For example:

- The white female co-owner of a DBE professional services firm remarked, “I’m only five-feet tall ... it’s amazing how overlooked I am.” She added, “Add the woman to the five-feet tall ... I have to prove myself [every time I meet with someone new] because I’m not the person they expect.” [#I-12]
- A white female representative of a WBE construction firm commented added that soon after the firm was first established, when quotes still needed to be delivered in-person in Jefferson City, the “rooms were filled with men.” She commented, “It was a very hard start and it’s pretty clear that contractors don’t want to do work with minorities.” [#I-04]
- An industry association representative reported that women often experience unprofessional language and do not have always access to appropriate restrooms while on the jobsite. [#TO-08]

Others reported no knowledge or experience of unfavorable work environments for minorities or women. [e.g., #I-04, #I-06, #I-08, #I-09, #I-10, #I-11, #I-14, #I-15, #I-16a, #I-18, #I-26, #I-27, #I-30, #I-38a, #TO-04, #FG-03a]. For example:

- One white representative of a majority construction firm reported that he does not believe there are unfavorable work environments for minorities and women and added that he is preparing his daughter for a career in construction. [#I-20b]

Knowledge of false reporting of good faith efforts or front companies. The study team asked interviewees about their knowledge of false reporting of good faith efforts, fraudulent reporting of DBE participation or front companies.

Many business owners reported what they believed to be false reporting of good faith efforts or DBE participation on contracts. [e.g., #I-20, #I-22, #I-25, #I-26, #I-29, #I-31, #I-34, #I-35, #TO-03, #TO-07, #TO-08, #TO-10, #FG-011, #AS-49]. Comments include:

- The white female owner of a WBE construction firm reported that she is not “confident” that all firms are making good faith efforts to fulfill DBE goals. She commented that general contractors will email her because she is a DBE firm but that when she calls or replies with a follow-up question, she won’t hear back. She added, “I know that them reaching out and inviting me counted as participation, but I never had a chance to [participate]...” [#I-14]
- One white female co-owner of a DBE professional services firm remarked, “They’ll put you on a team with a prominent role [because you’re a DBE, but] when the project starts, that isn’t what you’re doing.” [#I-12]
- The white female representative of a WBE construction remarked, “I don’t believe that all prime contractors really try to use DBEs.” She added, “We’ve been in business since [the early 1990s] and there are contractors out there that we have never worked for and I always wonder, ‘How are they getting their [DBE] participation?’” She commented that some firms are very good about using DBEs and others are not. [#I-04]
- A white female owner of a DBE construction firm commented, “MoDOT allows [general contractors] not to honor their DBE goals.” She commented that general contractors will claim that there were no willing and able DBEs when her firm was never asked to bid, or her bid was ignored. She noted that she will send the evidence of this to MoDOT, but no action is ever taken. She remarked, “I’ve been ratting [general contractors] out forever and [MoDOT is] not doing anything about it.” [#FG-01k]
- An African American owner of a DBE construction firm commented that general contractors are listing DBEs on bids without ever contacting them so that they can meet goals without using DBEs. He commented, “There’s a software system ... [general contractors] are supposed to list for the good faith efforts and [I] can go and search by [my] company name and [I] can see [my] name on jobs that we have never heard about.” [#FG-01g]
- A male owner of a construction supply firm indicated that some DBE subcontractors subcontract specialized work to non-DBEs and that the work is still wrongly counted toward the DBE goal. He said that this should not be an issue because “the CFR is there” prohibiting it. [#PC-02]

Some interviewees reported presence of front companies. Several interviewees commented on what they perceived to be certification of companies as DBEs that were not truly owned and controlled by minorities or women. For example:

- A minority female business owner commented by voice mail to the study hotline phone number that she is concerned that some DBE firms are fronts because “they’re usually...the wife or sister of the men...” She added that “there’s not enough minority businesses getting opportunities...” [#PC-01]
- The white female representative of a WBE construction firm commented, “There are WBEs where their husband runs the business.” [#I-04]
- A white co-owner of a WBE construction firm commented, “I know ... companies [where] the guy owned a business ... they shut that business down and opened it up under [his] wife’s name” He remarked that his firm has gone the “upfront ... legal” route for WBE certification. [#I-02a]
- A male owner of a construction supply firm indicated that he is aware of WBE “fronts” in the Missouri marketplace. He also said that he is aware of companies hiring certified DBEs but that those DBEs do not actually perform the work. He went on to comment that there are “games being played [in the industry].” [#PC-02]

Some interviewees reported no knowledge of “fronts,” or false reporting of good faith efforts. [e.g., #I-05, #I-06, #I-07, #I-08, #I-09, #I-11, #I-13, #I-15, #I-16a, #I-18, #I-19, #I-27, #I-28, #I-33, #I-37, #I-38a, #TO-04]

Specifically, unfair treatment by MoDOT during performance of work. A few interviewees reported that unfair treatment by MoDOT is evident. [e.g., #I-29] For example, the representative of a majority construction firm reported that MoDOT does treat firms unfairly such as not paying for change orders. He commented that management is poor and reported that they sometimes modify testing requirements outside of their jurisdiction because there are some “overzealous” employees that do not believe contractors should make much money. [#I-30]

Any other unfair treatment or disadvantages for small businesses, woman-owned or minority-owned businesses in the Missouri marketplace. [e.g., #I-01, #I-04, #I-05, #I-16, #I-16a, #I-25, #I-26, #I-31, #I-33, #FG-01g, #FG-01j, #FG-03b, #FG-03d, #FG-04h, #TO-05a, #TO-07, #TO-10]. For example:

- The white representative of a DBE professional services firm indicated that there are greater challenges for minority- and women-owned firms because white men are predominately deciding how to award contracts and subcontracts. He commented, “It has to do with the stakeholders, who is giving the stuff out.” He added that “long-term relationships” are the biggest disadvantage for women- and minority-owned firms because there are so few longstanding MBE/WBE firms. He added that he believes these disadvantages are decreasing in size. [#I-06]
- A representative of a trade association commented, “I think any small business has challenges.” [#TO-03]
- One interviewee indicated that small subcontractors must carry the burden of financing on a project because they have higher interest rates. He commented, “The financing is

going on the subs as opposed to the [general contractors] and that's a problem here in this state." [#FG-01f]

- A white female representative of a WBE construction firm commented that meetings encouraging the use of DBEs are not successful. She commented, "I go to those meeting; not a single person talks to [me] or engages with [me]. I don't even know why they have them." [#I-04]
- The African American female owner of an other services company expressed that hiring competent and reliable personal and having access to affordable legal representation has been a challenge. [#I-01]
- A white female owner of a WBE professional services firm reported that small firms are not perceived as capable of completing projects. She commented that even when a large firm receives a job, only two or three employees usually work on the project. She commented, "Even after [more than 15 years] in business ... they still call us a boutique shop ... as if ... we are just offering trinkets, whereas we offer the same type of professional services anyone else does with equal or better skills." [#I-13]
- An African American male co-owner of a DBE professional services firm remarked, "The true disparity for us is that color still matters in the industry That we are capable is still somewhat clouded to the mainstream." He added that he feels the industry doesn't think his company has the same depth of knowledge as some of his white competitors. [#I-19a]
- The African American male representative of a professional services firm reported that once a majority firm told him that they threw away designs from a DBE subcontractor because they had already designed the project and only hired the DBE to meet goals. [#FG-02a]
- The African American female owner of a services company reported that she is not fairly compensated for extra work she performs for her client's customers. She also expressed that the client ignores her concerns about certain aspects of the work but addresses these concerns with other vendors. [#I-01]
- A white female owner of a DBE construction firm added that general contractors low bid on projects and take advantage of subs that lack the legal knowledge. [#I-26]
- The Asian American male owner of an MBE professional services firm reported that the fear of how he would be perceived has been a difficulty. He commented that although he has a good reputation, he understands that it is important for clients to feel comfortable with him. He remarked that once in Mississippi he was advised to remove his photo from a company's website so his skin color would not cause him any problems. He added that these fears have not come to fruition. [#I-18]

- One white female owner of a WBE professional services firm responded, “[Yes] ... perception and history ... it’s more prevalent and expected to have white males as engineers.” [#I-15]
- A white representative of a DBE professional services firm commented, “It’s [the] perception that DBE firms do not always equal quality work.” He continued, “It’s ... much more perception than reality” He further commented that DBE firms “have to keep proving [themselves] every time” and that a “blip” on a DBE’s record is a lot bigger than a mistake for a majority firm. He added, “DBEs are expected to screw up and when they do, they fulfill the prophecy.” [#I-06]
- One white representative of a professional services firm added that a white female is not always perceived as being disadvantaged. [#I-08]
- The white female representative of a majority owned construction firm reported that a union employee claimed that women and minorities cannot pass the math test required to become an employee. The representative remarked that she called to report this but was passed off to different departments. She noted that this led to the elimination of the math test, which was supposed to be replaced by a non-discriminatory one. She added that there are now increased requirements for an apprentice to be allowed to start which will especially affect disadvantaged groups. [#I-34]
- An African American male owner of a DBE specialty services firm reported that a lot of the minority outreach is not useful because it does not show the true available capacity, but rather which firms showed up to the event. He noted that some large firms use this as an excuse to say there is low capacity for DBEs in the field. He remarked that MoDOT clearly recognizes that this is an issue because they are spending money on this study yet still does not have someone “on payroll” looking more in-depth to find all the companies that already exist. He remarked that if he wanted to find a dog, instead of conducting a study about how many people own dogs in the city, he would just go to the pet store and get a dog. [#I-35]
- One white female representative of an industry association reiterated that women-owned firms have access to only 4-5% of corporate and government contracts. She added, “30 years ago, women needed a male cosigner to get a bank account ... 30 years later, women are still striving for [equality].” [#TO-10]
- A representative of a majority construction firm commented that “paperwork” is an issue for small businesses attempting to work in the public sector in Missouri. He remarked, “The paperwork required overwhelms [small businesses] and ... they can’t even get out of the gate to figure out how to do state work.” He added that insurance requirements and understanding certified payroll were specific obstacles for DBEs. [#FG-04e]
- Commenting on how to get more minority and female workers into the industry, the American male representative of an industry association reported that transportation to jobsites is a barrier for workers in the construction industry. He added that the

association approached different insurance and ride sharing companies as well as credit unions to create transportation options for workers of the firms represented. [#TO-08]

Some interviewees indicated that certain firms are utilized on projects a disproportionate amount of the time. [e.g., #TO-05a, #AS-101] Comments include:

- A white representative of a majority materials supply firm indicated that work is not distributed fairly among DBEs. He commented that the point of the program is to give a company an opportunity to succeed, but there is not value in going forward. He later added some DBEs are “past that.” [#I-23]
- The African American male owner of a DBE construction firm reported that he could not reconcile being an MBE construction company and not be utilized on projects. He added, “I saw that the DBE inclusion requirements were being met with white-women owned companies.” [#I-25]
- An African American male co-owner of a professional services firm remarked that MoDOT needs to help companies graduate from the DBE program because the system isn’t working. He remarked that MoDOT does not appear to understand that diversity adds value and the importance of ensuring various DBE firms are utilized, not just the same two. [#I-19a]

Several business owners and representatives indicated that there is little to no unfair treatment of woman- and minority-owned businesses or small businesses. [e.g., #AS-31] For example:

- A white representative of a majority construction firm indicated that because most everything in his industry is competitively bid, it’s more difficult for unfair treatment to occur. [#I-10]
- One representative of an industry association remarked that there is no unfair treatment of woman- and minority-owned businesses and added that most primes “go above and beyond” what is required when working with DBEs. [#TO-04]

Suggestions to address barriers or disadvantages for minority- and women-owned firms in the Missouri marketplace. Interviewees provided suggestions to address barriers for certified firms.

[e.g., #I-21, #I-26, #I-32, #I-33, #I-34, #I-35, #I-37, #FG-02b, #TO-05, #TO-07, #TO-10]

For example:

- The white female owner of a WBE construction firm commented that MoDOT should continue its business assistance programs that help “minority companies be better companies.” [#I-14] She suggested that MoDOT also improve timely payment for small firms and that it be stricter with applying “good faith efforts” to general contractors. [#I-14]
- A white female co-owner of a DBE professional services firm suggested that MoDOT send “the people [her firm] need[s] to know” to the DBE symposium. [#I-12]

- The Asian American male owner of an MBE professional services firm reported that small businesses need assistance regarding paperwork for both certification and obtaining jobs as well as assistance in identifying jobs good for small firms. [#I-18]
- The white female representative of a WBE construction firm commented that there are many WBE- and MBE firms which are not truly women- or minority-owned and she would like this issue to be addressed. [#I-04]
- A representative of a majority construction firm indicated that creating more realistic DBE goals would help both large firms and DBEs. [#I-10]
- The white female owner of a DBE construction company reported that there should be more pre-bid meetings like the “DBE mixers” because when there is only one, many firms are not able to attend due to scheduling conflicts. [#I-07]
- A representative of a trade association reported that the more rural region of Missouri needs access to the same resources and services as the areas with larger numbers of minority- and women-owned firms. He added, “MoDOT is doing really important and valuable work in [other areas of the state] [In our area] we’re not in the loop as much as in Kansas City and St. Louis.” [#IO-03]
- The representative of a majority construction firm reported that MoDOT should simplify the paperwork process and provide training sessions to help DBEs go through the paperwork process. [#I-11]
- A white representative of a professional services firm reported that MoDOT should set aside contracts specifically for small businesses. [#I-08]
- One representative of a majority construction firm suggested that MoDOT train the website support staff and then have them give a one-hour demo about how to use the site to DBE firms. [#I-20a]
- The African American male representative of a professional services firm commented that there should be projects that allow only DBE firms to bid as prime contractors. He noted that this would create more “worthy” projects that are large enough for DBE firms to consider taking. [#FG-02a]
- A representative of a business assistance association remarked that there should be strong penalties for public agencies who are not trying to increase DBE participation. He also remarked that MoDOT should have more “policing” to ensure DBE goals are met. [#FG-02d]
- The African American female representative of a professional services firm suggested that MoDOT should be held responsible by the federal government when DBE goals are not met. He also argued that there should be fines for general contractors who do not meet DBE goals. [#FG-01d]

- A Native American female co-owner of a DBE construction firm reported that there need to be smaller jobs and more incentives for primes to meet goals. She noted that teaming agreements could be helpful. She recommended that MoDOT should look at the SBA-8(a) program and HUD-zones as examples. [#I-31]

- One white female owner of a professional services firm commented that everyone is working hard to change disparity and equity, but the evidence shows that the efforts are not working. She added, “I have talked to a number of people about starting a program in the industry to change the conversation about racism and sexism. I think a lot of people just give lip service.” [#I-36]

F. Insights Regarding Business Assistance Programs and Certification

The study team asked business owners and representatives about their knowledge and experience of business assistance programs and certification. Topics discussed include:

- Contract preference goals programs or business assistance programs in Missouri;
- Perception of DBE certification process or that of other certifications;
- Any advantages or disadvantages to DBE or other certifications; and
- Recommendations on ways to improve the certification process or modify DBE certification.

Contract preference goals programs or business assistance programs in Missouri. Interviewees discussed whether their firm has taken advantage of or has any knowledge of any contract preference goals programs or any business assistance programs in Missouri. [e.g., #I-03a, #I-04, #I-06, #I-07, #I-08, #I-15, #I-16a, #I-21a, #I-22, #I-26, #I-31, #I-34, #I-36, #FG-011, #FG-02c, #FG-04a, #FG-04d, #FG-04i, #TO-09, #TO-05a, #TO-10]

Some interviewees were supportive of including contract goals on projects and other targeted programs. For example:

- A female availability survey respondent reported, “[Primes] only use you if you can meet WBE or DBE requirements even if you work with them on a number of projects and have a very good relationship with them.” [#AS-119]
- An African American male representative of the professional services firm remarked that general contractors are playing the “short game” instead of the “long game” by limiting DBE participation to just the minimum goals. He indicated that these firms could build better relationships and more easily be able to find DBE firms if they hired them for larger portions of projects. [#FG-02a]
- An Asian American male owner of an MBE professional services firm noted that targeting jobs for small businesses would be helpful. [#I-18]
- One white female owner of a WBE construction firm reported that the DBE participation goals should be increased and that general contractors should be held more accountable regarding meeting those goals. [#I-14]

Other interviewees reported positively on business assistance programs and networking events. Comments include:

- A representative of a trade association reported, “One of the major things is to provide an adequate basis of training for DBE firms to understand the industry and also to make sure their organization is set up ready to get more business.” He added, “We provide that kind of training, coaching and consultation to DBE firms to allow them to do those things.” [#TO-06]

- A white female owner of a WBE construction firm commented that MoDOT has “supportive services.” She added that she attended MoDOT’s entrepreneur training class and that it was “extremely helpful.” [#I-14]
- The white female co-owner of a DBE professional services firm reported that her firm has taken advantage of MoDOT’s business assistance programs with legal advice, strategy planning and accounting help. She added, “There’s a lot of small business help stuff in our community The best one I ever went to was with the MoDOT back office people.” [#I-12]
- A representative of a trade association indicated that his organization offers no-cost business assistance programs and refers firms to other associations who offer different types of assistance. [#TO-3]

The same representative reported that “mature businesses” need help with networking, while start-ups need assistance with business planning, legal information, accounting, marketing and human resources. He added, “We can help a business from start-up to anywhere they are needing technical assistance along the way.” [#TO-03]

- An African American male representative reported that he had participated in a training program provided by MoDOT. He commented, “We gained significantly from that experience because we got to know more of the MoDOT people better and we got to know other DBE firms.” He added that he has attended “meet-and-greets” and that they were helpful but that he didn’t get any business out of it. [#FG-02a]

Some interviewees had negative comments about goals, business assistance or networking events. For example:

- The representative of a majority construction firm reported that Iowa and Kansas have goals that are often three times lower and more realistic and that MoDOT should look at their process. [#I-20b]
- A representative of a business assistance program reported that there is a downside to having DBE goals. He remarked, “If you set a goal, that’s what you’re going to get because it’s almost as if that’s the mandate and that’s the bare minimum that you’re going to get.” [#FG-02d]
- The representative of a majority construction firm commented that he recently spoke with a representative of the MoDOT DBE business assistance program who was not familiar with MoDOT’s bidding procedure. [#FG-03a]

He remarked that if those people that are supposed to be helping DBEs don’t know the process themselves, they will not be able to help DBEs learn the process. He added, “If I were a DBE and I called ... and I couldn’t get that basic help, I would be stranded.” [#FG-03a]

- The representative of a DBE professional services firm reported that he has attended “meet and greets” and didn’t get “one piece of business” out of it. He commented, “I only fish where the fish are. I try not to waste a lot of time going to a lot of events unless I see there’s an opportunity there.” [#FG-02b]
- The male representative of a construction firm commented that there are not enough DBE subcontractors to meet the contract goals on certain projects. He added that the shortage of DBE guardrail subcontractors and truckers leads to firms overcommitting themselves and not being able to finish projects. [#PC-04]
- The male representative of a professional services firm commented that the DBE goals in certain areas of are hard to meet and require “selecting contractors that did not bid low.” He added that this results in several problems including his firms’ bids being less competitive, the low bidder missing out on the opportunity and Missouri taxpayers paying more for the same product. He suggested that MoDOT should lower the DBE goal. [#PC-06]

Business representatives indicated that mentor-protégé programs are useful but are challenging for some business owners. For example:

- The representative of an industry association reported that mentor-protégé programs are not utilized as much as it should be. [#TO-04]
- The white female owner of a WBE professional services firm commented that because her firm is now well-established, she does not currently use any programs through MoDOT. However, in the past she participated in a mentor-protégé program that she found helpful. [#I-13]
- A representative of a majority construction firm noted that he has participated in a mentor-protégé program. He commented that it was difficult to build a relationship for the “long term” because small firms with very specific scopes of work might not be able to always pair with his firm on contracts in any given season. He remarked that it might be three or four seasons later before they have an opportunity to work together again and by then, the protégé may have left the highway construction business entirely. [#FG-03b]
- One female survey respondent reported that she is having a difficult time using the mentor-protégé program to help build her business. [#AS-80]
- A trade association representative remarked, “The only time you are going to see mentoring is when firms develop relationships with other firms outside the state ... and they’re not competing.” [#TO-01]

He added that the mentor-protégé program has a legal component because there are things companies can and cannot do. He commented that there could be a perception from competitors or administrators that think the companies are “too close” together. [#TO-01]

Perception of DBE certification process or that of other certifications. Interviewees discussed their perception of DBE and other certifications. Many reported on the difficulty or challenges related to certification processes. [e.g., #I-03a, #I-08, #I-09, #I-13, #I-15, #I-22, #I-25, #I-26, #I-31, #I-32, #I-33, #I-34, #I-35, #I-38a, #I-38b, #TO-01, #TO-03, #TO-05b, #TO-06, #TO-07, #TO-10, #FG-03c, #FG-04h, #PC-03, #AS-80, #AS-131] For example:

- The white female co-owner of a DBE professional services firm reported that it is difficult to become a DBE in Missouri. She added, “A small business [cannot] do all of the background financial paperwork [necessary] to work for the government.” [#I-12]
- The white co-owner of a construction remarked, “... people say you have to hire a lawyer to [get certified] ... to jump through all the hoops and everything.” [#I-02a]
- An Asian American owner of an MBE professional services firm remarked that the process is “painful” and difficult to navigate. He added that he relied on several advisors to guide him through the process. [#I-18]
- The African American co-owner of a professional services firm indicated that the process was very difficult. He reported that he had to go to four different state reviews to make sure his knowledge of professional services is up to par. [#I-19a]
- A white female owner of a DBE construction firm reported difficulty becoming certified but found it necessary to preserve the “integrity of the program.” [#I-07]
- The representative of a majority construction firm reported that he has heard that it is difficult to add a “NAICs code” to an existing DBE certification. [#I-11]
- The female survey respondent said, “I was told I needed WBE certification to work with MoDOT ... now DBE certification is required, a big effort.” [#AS-131]

A few interviewees shared their experiences certifying with more than one agency. [e.g., #I-31, #I-35, #TO-04, #PC-03] For example:

- The white female owner of a WBE professional services firm commented that the unified DBE certification program has decreased the amount of paperwork required for individual projects. [#I-13]
- A white female owner of a construction firm commented that they are unable to apply for WBE certification with Kansas City, Missouri because they were rejected by the State of Missouri. [#I-02b]
- The Asian American male owner of an MBE professional services firm reported that the certification process is especially difficult in Kansas City, Missouri. He remarked that his application was a “book.” He commented that a year after he sent in his paperwork, he found out that it had not been processed and had to go through the entire application process again. He reported that after the second submission, he

received his MBE status after three months. He contrasted this experience with KDOT, explaining that approval only took five days. [#I-18]

- A white female owner of a DBE construction company reported that she was naively optimistic that MoDOT's federally affiliated DBE program would accelerate the process of becoming certified in other states. She commented, "MoDOT will not complete paperwork that those other states request and that frustrates me." She added that she sees other states making it easier to gain certification when already certified in another state but that MoDOT is "not cooperating." She did, however, state that her firm's MoDOT certification has streamlined her certification process with the state of Missouri. [#I-07]
- The white female owner of a WBE construction firm reported that her company was rejected certification by City of Kansas City, Missouri. She reported that this was because the City suspected her firm of being a pass-through due to a family member owning another company in the industry. She added that this was probably also "because [she's] a white female." [#I-03a]
- A representative of a DBE professional services firm commented that he has had issues with the certification process in the City of St. Louis, Missouri. He commented that his firm is in the process of converting from WBE to MBE and that it has been difficult to institute that change on the city level. [#I-06]

Any advantages or disadvantages to DBE or other certifications. Interviewees expressed their opinions on whether certification is advantageous or disadvantageous to them. [e.g., #I-32, #I-33, #I-34, #I-35, #I-37, #I-38b, #I-39, #TO-07, #TO-10] Comments include:

- The white female owner of a WBE construction firm reported that minority- and women-owned firms do face additional challenges because there is a "stigma." She commented that using the word "disadvantaged" in the DBE name is unhelpful because it connotes low quality. [#I-14]
- A white female co-owner of a DBE professional services firm commented, "DOT work is what we always wanted to do DBE certification has allowed us to [be part of major projects] and expand our experience." [#I-12]
- The white female representative of a WBE construction firm commented that her firm bids on projects which she knows require goals for DBE certification. She also commented that being a WBE causes many to question whether she is really running the company and is more than just a figurehead to get a certification. [#I-04]
- A white female owner of a construction firm indicated that there are advantages to WBE certification. She commented that contractors "get excited" when they see that she owns the business, though this is before they realize that the firm is not a WBE. [#I-02b]

- The white male owner of a majority construction firm reported that it is an advantage to be certified as a DBE because “their price would be considered.” [#I-16a]
- One representative of a majority construction firm reported that is advantageous to receive DBE certification because their work is valued at a “premium.” [#I-20a]
- The white female owner of a WBE professional services firm commented that it’s a disadvantage to have so much sensitive information publicly available. She remarked that she fears for her privacy. [#I-13]
- A white female co-owner of a DBE professional services firm commented, “The negative is you get niched in that ... you have to struggle to get prime work It’s hard to be a sub.” [#I-12]
- The white female representative of a construction firm indicated that the disadvantage to DBEs is that those who do quality work cannot remain small, which impacts their ability to be considered “disadvantaged.” [#I-27]
- A female survey respondent reported, “Our WBE certification has really been useless. The only companies that seem to benefit from minority certifications are MBEs.” [#AS-05]

Recommendations on ways to improve the certification process or modify DBE certification.

Interviewees suggested ways to improve the certification process or criteria for DBE certification. [e.g., #I-08, #I-23]. For example:

- The Asian American male owner of an MBE professional services firm remarked that KDOT has a more efficient certification process that other public entities should use as a model. [#I-18]
- A co-owner of a majority construction firm reported that there is a “staggering number,” between 1,400 and 1,800, of DBEs considered “willing and able” to work on construction and professional services projects in Missouri. He reported that there are only about 100 firms that have the capacity to do the work, while only 25 to 30 do 80 percent of the DBE work. [#I-09]

The same business owner remarked, “This has been a huge problem for years” He cited NAICS coding as a potential cause of the problem. He used the landscaping code as an example and reported that an individual that starts a single-person firm providing raking as a service and a firm creating a mechanically stabilized earth retaining wall both go in the same category. He expressed that firms that do not do construction and professional services work should not be on the list because a long list leads to the creation of unrealistic DBE utilization goals. [#I-09]

- A representative of a majority construction firm reported that he has heard that it is difficult to add a “NAIC code” to an existing DBE certification. He commented that this causes some firms when initially certifying to include more NAIC codes than

appropriate so that they don't have to add them later. He indicated that it should be easier to add NAIC codes later so that they are more accurate. [#I-11]

- A representative of a DBE professional services firm remarked that he would like to see more reciprocity of DBE certifications among states. [#I-06]
- The representative of an industry association reported that certification is difficult and the process for recertification needs to be simplified. He added that Kansas City's requirement that firms must be around for at least one year before becoming DBE certified makes it difficult for new firms to get work. [#TO-04]
- The white female representative of a construction firm suggested that there needs to be more qualifications for certification and companies need to show that they know how to do the work in the industry. [#I-27]
- A representative of a materials/supply firm remarked that once DBE firms become successful and have "some money in the bank," they should lose DBE status. [#I-38b]
- A female representative of a construction firm commented that her firm works in Missouri but are not DBE certified in Missouri due to the "lengthy process of certifying with MoDOT." She added that to help MoDOT reach minority and disadvantaged goals, DBEs that are certified in neighboring states should qualify with MoDOT. [#PC-03]

Two majority business representatives commented on DBE "graduation." For example:

- The owner of a majority construction firm noted that DBEs are supposed to eventually "graduate" from the DBE program but that some firms have been in the program his entire career. [#I-16a]
- A representative of a majority construction firm commented that DBEs that grow too large lose their status so there is no incentive to graduate. [#FG-04b]

G. Any Other Insights or Recommendations for Missouri Department of Transportation and Local Agencies

The study team asked interviewees for additional insights or recommendations for MoDOT and the local agencies to improve their procurement processes. Suggestions include:

- The white female owner of a WBE construction firm suggested that MoDOT set aside funds for DBEs to be paid once their portion of the work was done, even if the general contractor hasn't been paid yet. [#I-14]
- A representative of a trade association reported, “[MoDOT should be] targeting our minority communities in terms of media ... regularly contacting [minority] communities about opportunities within MoDOT.” He added, “MoDOT needs to have a budget for [outreach] ... [minorities and young people] need to see that there are opportunities [within MoDOT].” [#TO-03]
- The white female co-owner of a DBE professional services firm shared that she is frustrated with the low number of DBEs in Missouri and suggested that MoDOT advertise business ownership more. She added, “There’s a path to becoming a business owner that is not too difficult to overcome I don’t understand why more people don’t do it.” [#I-12]
- A white female owner of a WBE professional services firm commented that there should be more opportunities to build relationships so that more businesses can get information about upcoming projects before they are posted. [#I-15]
- A representative of a DBE professional services firm indicated that he is opposed to stricter guidelines that require many different types of DBEs or create requirements for individual components of a contract to have their own DBE goal. He commented that he opposes this because he does not want to have to manage getting multiple subcontractors on one contract, especially on a small contract in the professional services industry. [#I-06]
- An African American male co-owner of a professional services firm reported that there are two “big boy DBE firms” that get about 80 percent of the DBE contracts because the primes feel comfortable working with them. He commented that he knows primes are the ones selected by the clients and that DBE subs just “come along” but that he wished MoDOT looked more closely at how often DBEs are chosen as subs. He reported that until that happens, his strategy is to just “go to another door” every time the firm is turned down. [#I-19a]
- The representative of a majority construction firm commented that he didn’t think MoDOT could do anything to get more DBEs to work in more rural areas, noting that they are already higher priced and make more money than non-DBE firms. [#FG-03a]

- One owner of a majority construction firm commented that some of the successful DBEs should graduate from the program in order to free up MoDOT assistance programs and money to help smaller, newer firms. He noted that although this would hurt his firm’s ability to meet goals, it would be a better use of the DBE program. [#FG-03d]
- The representative of an industry association reported that MoDOT is doing better than the surrounding states regarding minority- and women-owned business practices. He added that the DBE participation goals align well with the make-up of the industry. [#TO-04]
- A female representative of a supportive services provider reported that DBEs need more opportunities to work directly with MoDOT instead of usually going through a prime. She added that any path that offers a “clear direction and pathway to goal attainment supports the DBE as well as MoDOT.” [#TO-09]
- An industry association representative suggested that MoDOT should create a way for primes to show that they have been successful in what they have learned about DBE participation and meeting participation goals. He added that this would encourage primes to partner with DBEs and subs. [#TO-08]

Some interviewees discussed updating the DBE list and/or modifying the method for creating DBE goals. [e.g., #I-15, #I-28, #I-35, #TO-05a, #AS-148] Comments include:

- A representative of a majority construction firm commented that MoDOT should look to states like Iowa as an example of how to obtain a more accurate DBE list and therefore more accurate goals. [#I-20b]
- One representative of a trade association reiterated pairing down the list and making sure the DOTs are using companies that are capable of accomplishing the work. [#TO-01]
- The owner of a majority construction firm reported that he’d like to see the AC supply DBE goal removed because “if you took that away, nothing would change in the end.” He indicated that there are so few DBE suppliers in the industry that it doesn’t accomplish the goal of a DBE program to help many small firms. [#I-16a]
- An Asian American male owner of an MBE professional services firm indicated that DBE goals should not be restricted to MBEs and WBEs but that they should include other small businesses. [#I-18]
- The representative of a majority construction remarked that for some heavy highway construction projects which are very dangerous, no small start-up firm should be working there, DBE or otherwise. He commented that including a large DBE goal on this type of project is not good for anyone involved. [#FG-03c]

- A representative of a majority construction firm commented that MoDOT should look at who has actually performed work in the past in certain work scopes and areas when determining availability of DBEs. [#FG-03e]
- The white representative of a majority construction firm reported that in California, DBEs in a given district, not the entire state, are contacted regarding a project to assess the DBEs' capability of working on the project and their overall workload. He commented that DBE goals vary by region and by task and that this is made clear for each bid number. The same business representative added that a previous bidders list should be used in determining potentially interested businesses to prevent "artificially inflated" numbers using a "transparent process." [#I-10]

Some business owners and representatives discussed creating smaller projects for DBEs. [e.g., #I-11, #I-31, #AS-103] For example:

- The white female owner of a WBE professional services firm reported that large MoDOT contracts ought to be broken up into smaller pieces. She remarked, "I hope that the lion's share of the money is not grouped into these enormous contracts that make it very difficult for small firms to get work." [#I-13]

She added, "If the perception is that ... boutique companies like mine can't do the bigger jobs, then break the jobs into smaller jobs ... so that smaller firms can have the opportunity to prime." [#I-13]
- A representative of a professional services firm commented that Florida has a Business Development Initiative which sets aside contracts just for small businesses that MoDOT could copy. He commented, "It's an opportunity for the [Department of Transportation] to crack that door open." [#I-08]
- One white representative of a DBE professional services firm suggested that an alternative to setting percentage goals for small contracts could be opening a contract and only allowing small businesses or MBEs to bid as is done in some other states. [#I-06]

Some business owners and representatives discussed improving assistance programs and training for DBEs. [e.g., #I-14, #I-31, #I-33, #I-35] Comments include:

- The white female co-owner of a DBE professional services firm commented that MoDOT should do more back-office training. She added, "You don't want to get the reputation of a DBE that doesn't follow the rules ... The only thing that is worse is if you [don't do quality work]." [#I-12]
- A representative of a trade association indicated that many new small businesses lack the "mindset" to succeed in business and suggested that there be classes teach the "mindset" of a business owner. [#TO-03]

- The representative of a majority construction firm reported that MoDOT should simplify the paperwork process and provide training sessions to help DBEs with the paperwork process. [#I-11]

Some interviewees discussed what they believe MoDOT and the local agencies are doing well in their efforts to encourage participation of certified, minority- and women-owned firms and other small businesses. [e.g., #I-26, #I-37, #TO-01] Comments include:

- The white female co-owner of a DBE professional services firm commented, “[MoDOT] act[s] in good faith and [has] the community’s best interest in mind ... they stand up for DBEs.” [#I-12]
- A white female owner of a DBE construction company indicated that MoDOT and local agencies have done a lot in the last ten years to promote new businesses and help them break into the market with goal programs and meet-and-greets. [#I-07]

She added that she likes the mixers and get-togethers and that are held in both the St. Louis and Kansas City areas. She also indicated that she likes that MoDOT facilitates greater communication between prime contractors and subcontractors about who wins a contract bid and the details of that contract. She remarked that she thinks the contract goals MoDOT sets are good and realistic to local availability. [#I-07]

- The white female owner of a WBE construction firm favorably commented that MoDOT has “supportive services.” She indicated that MoDOT is doing a good job in its minority- and women-owned business programs. [#I-14]
- An Asian American owner of an MBE professional services firm indicated that he likes how MoDOT projects are “complete” for engineers, meaning that expectations and timelines are clear. He added that projects for the City of Overland Park, Kansas are even more complete. [#I-18]
- The white female owner of a WBE professional services firm reported that they are “becoming more aware of [the need to be inclusive].” [#I-15]
- A representative of a trade association reported, “MoDOT comes and addresses our association at least once or twice a year.” He added that MoDOT is “proactive” and seeks input from his association regularly. [#TO-03]
- The white representative of a majority materials supply firm reported that Missouri has reasonable goals and DBE program. He commented, “If someone opens a business in his wife’s name, Missouri usually figures it out.” He later added that Missouri’s goals are reasonable and contrasted Chicago’s program which are “not possible to meet.” [#I-23]
- One African American male representative of a DBE professional services firm reported that he is glad that MoDOT has banned some general contractors who have not met DBE goals. He added thought that there’s “much more to be done” but “they’re making some strides.” [#FG-02a]

- The African American male owner of a DBE construction firm reported that MoDOT has a “good handle” on what is happening in the marketplace. [#I-25]
- A white female owner of a professional services firm reported that MSD does a “roll-out” every year. She added, “Some firms find out about things a little early, but it enables primes and subs to have the same advantage of information at the same time.” She added, “I think the programming that MoDOT has put out as been helpful and contributes to success.” [#I-36]
- An industry association representative reported that MoDOT’s Construction Workforce Program is doing a great job of incentivizing contractors to hire diverse workers. He reported that these contractors are paid up to \$10 an hour extra if they hire diverse workers for different projects. He added that MoDOT does a great job of making sure that firms are compliant with the different regulations in the construction industry. [#TO-08]

Others reported on what they thought MoDOT and the local agencies could improve. For example:

- The white female co-owner of a DBE professional services firm reported that in another state the firm wanted a specific prequalification and was assigned to a mentor who helped them with the process. She noted that Missouri has avoided adopting this kind of program. [#I-12]
- A representative of a construction firm reported that getting timely payment from MoDOT has been an issue “at times.” He commented that MoDOT can be difficult to get to pay for change orders. [#I-24]
- One representative of a majority construction firm commented that improving the process of creating DBE goals is important. He commented that MoDOT External Civil Rights is “overconfident in the capabilities of DBE firms” and that works to the “detriment” of both DBEs and larger firms. [#I-10]
- The Asian American male owner of an MBE professional services firm remarked that he would like to work with MoDOT more but that there needs to be more opportunities for small businesses. [#I-18]
- An industry association representative reported that he would like to see more events to help primes and DBEs get together and meet to build relationships. [#TO-08]

Suggestions for MoDOT or the local agencies to improve procurement practices varied.

[e.g., #I-07, #I-08, #I-26, #I-28, #I-31, #I-37, #TO-03, #TO-04, #TO-07] Comments include:

- One white female co-owner of a DBE professional services firm commented, “Get a realistic schedule ... a lot of times [MoDOT will] give a tight unrealistic schedule that requires overtime.” She added that MoDOT needs a clearer work scope to avoid primes having to scramble at the last minute. She commented that this usually results in DBEs being overlooked as subs. [#I-12]
- The white female owner of a WBE construction firm suggested that MoDOT improves timely payment for small firms and that it be stricter with applying “good faith efforts” requirements for general contractors. [#I-14]
- The white female owner of a WBE professional services firm reported that MoDOT is starting to have a yearly meeting to discuss upcoming projects. She added, “Maybe they could have [the meeting] more often ... have a little bit more detail ... maybe try project specific meetings.” She reported that MoDOT could also encourage primes to team with different small firms rather than using the same firms. She added, “I know they have [percentages of DBE firms] listed on their contracts ... [MoDOT] encouraged [primes] for going above and beyond [this percentage].” [#I-15]
- An owner of a majority construction firm suggested that MoDOT “watch quality of work.” He indicated that there are firms with low prices that perform low quality work and that they win MoDOT contracts because it they are simply low-bid. [#I-16a]
- The representative of a majority construction firm reported that other states are collecting data on DBE subcontracting bids to find out where in the state they are willing to work so that they can adjust their DBE goals for different regions of the state. He indicated that he would like to see MoDOT adopt a similar system. [#I-11]

The same representative commented that DBEs are encouraged when they register to include more NAICS codes than appropriate because it is difficult to add NAICS codes later. He added that this can inflate the number of “willing and able” DBE firms for certain jobs. [#I-11]

- A representative of a DBE professional services firm suggested that after MoDOT bids are awarded, the proposals and scorecards should be published so that he can compare his proposal and scoring results with others. [#I-06]
- A trade association representative suggested the MoDOT give firms more information upfront about the projects so the firms can decide if it is worth the investment in the project. He added, “If MoDOT could somehow show the quantity to make it a little easier for them ... it’s one of the things I’ve been thinking about.” [#TO-01]

- An African American male owner of a DBE construction firm suggested that MoDOT or others should create a “whistleblower” program to report general contractors engaging in unethical and illegal conduct with subcontractors. He added that there need to be fines for general contractors who engage in unethical and illegal practices regarding DBEs. He commented that these firms apologize but never change. He remarked, “How many times is sorry going to feed my family?” [#FG-01g]
- The white female owner of a DBE construction firm commented that MoDOT should pay subcontractors directly for their work. She noted that the federal government has programs through the Army Corp of Engineers which pay subcontractors directly. [#FG-01k]
- An African American male owner of a DBE construction firm commented, “It would be helpful if MoDOT listed who the prime contractor is and the names of the subcontractor being used ... that would give me an idea of who they’re using for participation [goals].” [#I-25]
- The African American female owner of an DBE professional services firm commented that MoDOT should consider “team collaboration,” or existing relationships between subcontractors and general contractors, as a plus when considering bids. She commented that if the bidding process encourages firms to work together often, general contractors will be encouraged to use DBEs on private projects without goals in order to promote their bids with those same DBEs for MoDOT projects. [#FG-01e]
- A representative of a majority construction firm suggested that MoDOT needs to facilitate communication between DBEs and primes. He noted that some DBEs take on too many projects and must abandon them. He commented that MoDOT should support them in the process of managing projects and ensure there are consequences for abandoning them. [#I-30]
- A representative of a trade association reported MoDOT should know the companies that are capable of doing the work within the different districts. He added, “They should send out notifications to firms within the districts to alert them of work that is coming out in the future. It’s not that this information doesn’t exist ... it does exist online and you can call the district office, but it would be a different mechanism if there as a way to alert DBE firms if there was a project that will happen in 6 months or year.” [#TO-06]
- The representative of an industry association reported that MoDOT should be more explicit with contract language to avoid primes trying to stretch subs too thin on specific projects. He added that the contract language is never discussed until there is a conflict or dispute. [#TO-08]

Some public meeting participants and other individuals making public comments offered insights regarding the DBE Availability Study. For example:

- The representative of an industry association reported that his association believes that a “fair-minded and comprehensive approach” was taken for the study and that the association supports the study process and result. He went on to say that his association is fully committed to building a diverse transportation industry and noted that the DBE stakeholder meetings were “very impactful.” His association, he added, has enjoyed the opportunity to participate in the meetings. [#FG-05a]
- One representative of a professional services firm commented, “[We’re] appreciative of the work completed [and] open participation.” [#PC-05]
- A representative of a professional services firm commented that the study was “very transparent.” He added that the study team did an “outstanding job” of reaching out to stake holders around the state and collecting “the most accurate information that was available.” [#PC-07]
- Regarding the DBE goals set forth, a representative of a construction firm commented that the DBE goal is getting harder to meet both during the bidding process and once the contracts are issued. The same representative added, “At times, it is even harder to get some DBE contractors to complete their work.” [#PC-09]
- A representative of an industry association commented, “The results of this study show that progress has been made and there is still work to do.” He added that his association is in full support of the study process and results. [#PC-10]
- The representative of a construction firm commented, “It is our goal to partner with MoDOT to develop a transparent, repeatable and reproducible DBE goal-setting process to accurately reflect the availability of DBE firms within the highway construction and maintenance industry.” He added that his firm recommends that MoDOT “accept the results indicated by the study” and continue to explore ways to develop existing DBE firms and attract additional DBE firms to the industry. [#PC-12]
- The representative of a construction firm commented, “We are very supportive of the information in this report We hope this helps MoDOT in reestablishing benchmarks for DBE participation going forward.” [#PC-13]
- A representative of a construction firm commented, “We look forward to continuing to partner with MoDOT to develop and grow the DBE program.” He added that his firm recommends that MoDOT accept the results of the study. [#PC-14]

A few public commenters shared their thoughts on MoDOT’s recommendation to lower the statewide DBE goal. For example:

- The female owner of a WBE/DBE professional services firm commented, “The recommendation by MoDOT to lower the statewide DBE goal for professional services and construction contracts is disappointing.” She added that the number of available firms has increased over the past few years and projects without DBE goals have a lower usage of DBEs than projects with goals. [#PC-08]
- A representative of an industry association commented, “The recommendation by MoDOT to lower the statewide DBE goals from 16.05% to 12.45% for professional services and construction contracts is disappointing to our organization.” He added that the “historic” 13.4% DBE participation rate on federally-funded MoDOT projects from 2014 to 2018 is “encouraging” for the industry and requested that MoDOT not set a future statewide DBE goal below that rate. [#PC-11]
- One representative of a professional services firm commented that the firm is opposed to reducing the MoDOT DBE goal from 16.01% to 12.45% for numerous reasons. The representative reported, “The current availability study presents no proforma of the previous goal nor description of the rationale for why the change was made. The proposed goal calculated, using the methodology from the prior study, would suggest a goal of 20.75% ... an increase of more than 4 percentage points, not a decrease. With the FFY 2015 – FFY 2017 goal established at 15.38% and considering the actual experience of 14.32% from FFY 2016 – FFY 2018, it is clear the goal was not achieved by more than one percentage point.” Adding, “Given a lower goal, it should be easier to achieve but the objective is to create a more level playing field for DBEs, not to achieve or even exceed a goal.” [#PC-15]

APPENDIX G.

Assessment of Qualitative Information from Past Disparity Studies in Missouri

Introduction and Methodology

The study team analyzed results of in-depth interviews and other qualitative information from business owners and others in the Missouri marketplace. The qualitative information was reported in four disparity studies conducted from 2014 through 2018.

The anecdotal information is from interviews and surveys with individuals representing certified and non-certified businesses from the construction, professional services, goods and other services industries conducted for disparity studies for the City of Kansas City,¹ City of St. Louis,² St. Louis County³ and the State of Missouri.⁴ More than 300 business owners and trade association representatives provided insights that were included, in aggregate, in the four cited studies.

Business owners and trade association representatives interviewed in the disparity studies were often quite specific in their comments. As a result, they were reported in more general form to minimize the chance that readers could easily identify them. Business owners are identified in this report by letters representing the corresponding disparity study in which their comments appear (i.e., #CKC-1, #MO-2, #CSL-3, #SLC-4). #CKC indicates City of Kansas City; #MO indicates the State of Missouri; #CSL indicates the City of St. Louis and #SLC indicates St. Louis County.

Many pervasive barriers to business start-up, sustainability and success exist according to many business representatives providing anecdotal evidence in past studies. Access to capital, access to bonding and insurance, timeliness of payments by the prime or public entity, stereotypes, certification stigma, explicit discrimination and other factors are often experienced by minority- and women-owned firms, which can inhibit business success or result in business failure.

¹ Colette Holt & Associates. (2016). *City of Kansas City, Missouri Disparity Study 2016* (Rep.). Retrieved April 24, 2019, from City of Kansas City, Missouri website: <http://kcmo.gov/humanrelations/wp-content/uploads/sites/7/2015/01/KCMODisparityStudy2017.pdf>

² Mason Tillman Associates. (2015). *City of St. Louis Disparity Study* (Rep.). Retrieved April 24, 2019, from City of St. Louis website: <https://www.stlouis-mo.gov/government/departments/slcd/documents/upload/City-of-St-Louis-Disparity-Study-Final-5-11-15.pdf>

³ Griffin & Strong. (2017). *Saint Louis County Disparity Study* (Rep.). Retrieved April 24, 2019, from Saint Louis County website: <https://stlouisco.com/Portals/8/docs/document%20library/DisparityStudy/St.%20Louis%20County%20Disparity%20Study-Final%20Report%20Complete-171210SUBMITTED.pdf>

⁴ Colette Holt & Associates. (2014). *State of Missouri Office of Administration Disparity Study 2014* (Rep.). Retrieved April 24, 2019, from State of Missouri Office of Administration website: <https://oa.mo.gov/sites/default/files/2014MOOADisparityStudyFinal.pdf>

Based on the qualitative information provided by many firms and trade association representatives, it is apparent that the major disparate factors for certified firms, among others, are negative attitudes, lack of access to capital, late payments, lack of program monitoring, certification status and processes, “good ol’ boy” networks, and other racial and gender discrimination and stereotypes.

Summary of Results

Common comments and insights from the four disparity studies are summarized below.

Negative attitudes towards women and minorities. Some interviewees described negative perceptions of their competence, sexist conduct, “good ol’ boy” networks and experiences with other negative attitudes towards them.

“Good ol’ boy” networks are pervasive in the marketplace. Comments include the following:

- An interviewee reported that “good ol’ boy” networks are active in the Kansas City marketplace. [#CKC-1]
- A white woman owner of a goods and other services firm reported, “Decisions are made in the backroom ... that is where stuff is bought ... by the ‘good ol’ boys’ in the backroom” [#CSL-2]
- A minority owner of a professional services firm reported that the “good ol’ boys” are privy to opportunities in the St. Louis marketplace before other business owners. She commented that when inquiring into opportunities, she has been told that a team has already been assembled. [#CSL-3]
- Another minority female owner of a professional services firm commented that the “good ol’ boys” are the preferred consultants in her industry. She remarked, “... they like the ‘good ol’ boys’ better” She added, “The CPA firms are mostly male-owned and dominated.” [#CSL-24]

Negative stereotypes are evident in the marketplace. It was reported that perceptions exist that women and minorities are not competent.

- One comment was, “... women can’t do it and minorities can’t do it.” [#CKC-2]
- Two women business owners reported that stereotypes exist in the St. Louis marketplace. They both indicated that misperceptions exist that minorities and women don’t “do good quality work” and are not “taken seriously.” [#SLC-5] [#SLC-5a]
- A minority female owner of a professional services firm reported, “When we go into a situation, they assume that because we have the designation MBE or DBE that we are truly at a disadvantage in terms of our abilities” [#CSL-25]

Racial and gender discrimination is evident for some interviewees. Comments include:

- A minority female business owner commented that white men have commented, “It’s really unfair that you get this WBE” She added that “it would make your toes curl” regarding the discrimination she has experienced as a young professional services business owner. [#CKC-4]
- An interviewee remarked that a MoDOT engineer only speaks with “men and pretty young women” [#CKC-3]
- A minority business owner commented that retaliation towards minorities is a type of discrimination. He commented, “The minute I open my mouth, I am filleted ... by the biggest contractors in town ... Kansas City’s not a very big town.” He added, “... you piss off the right people, you’re not getting any work.” [#CKC-5]
- A minority owner of a professional services firm reported attending an airport redevelopment presentation for the City of St. Louis. He commented that when he looked around the room, he was the only minority in attendance. He remarked, “I was dumbfounded because if somebody had not invited me, there would have been zero African Americans at the meeting.” [#CSL-1]

Challenges in the playing field faced by minority and women business owners. Interviewees reported that the playing field is not level for women and minorities. Some indicated that payments are untimely, bids are shopped, access to capital is challenging and good faith efforts are not monitored.

- A minority female owner of a professional services firm reported that primes list her firm on their proposals without intentions to use her firm on the project. [#CSL-7]
- A male minority owner of a professional services firm reported that his bids are shopped by primes. He commented, “... they claim that they used us ... instead they would bait and switch” [#CSL-5]

Lack of monitoring of good faith efforts or “fronts” causes challenges for minority- and women-owned firms. For example:

- Regarding “fronts” a white female owner of a goods and other services firm reported being asked, “Can we run this business through you and just use your paperwork?” [#CSL-17]
- Regarding good faith efforts, a male minority owner of a professional services firm in St. Louis indicated that a number of majority firms reported an inability to locate qualified minority-owned firms. He reported, “... they are not doing their due diligence to go out there and find them [minority- or women-owned firms].” [#CSL-6]

- A minority female owner of a professional services firm reported that her firm is contacted by primes at the “last minute” so they can report their good faith efforts on a proposal. [#CSL-8]
- A white female business owner reported that firms are awarded contracts by using MBE/WBEs, but “farm the work out” to non-minority firms once the project has commenced. [#SLC-3]

One white female business owner reported that “fronts” are no longer a problem in St. Louis County. She commented, “There used to be fronts ... non-minority males would say ‘their wife was the boss,’ but, the practice has gone by the wayside.” [#SLC-4]

Lack of access to capital and bonding causes barriers to business success. Minority and women business owners face challenges with securing financing to start, grow and sustain their businesses. For example:

- A male minority owner of a construction firm reported facing barriers when applying for financing. He commented, “The banks wouldn’t even talk to me ... I didn’t have any collateral and my company is small.” [#CSL-9]
- A male minority owner of a professional services firm commented that majority firms have easier access to low cost bonding. He reported, “They [majority firms] can get a 1 percent bond ... minority company standing alone cannot ... they just don’t qualify” [#CSL-10]
- A male representative of a trade union reported that small businesses in general, not just minority-owned firms, face challenges obtaining bonding in the St. Louis marketplace. [#CSL-11]

One minority male owner of a construction firm, working on an Airport Authority project, reported that his required insurance was larger than his subcontract because the prime refused to cover the insurance under his policy. [#CSL-12]

Late payments cause undue hardship to minority- and women-owned firms. For example:

- A male minority owner of a construction firm reported experience with untimely payments from primes. He commented, “... I actually had to get an attorney to get paid [by the prime].” [#CSL-13]

The same business owner added that a DBE representative on an Airport Authority project was helpful to him securing his due payments from a prime. [#CSL-13]

- A minority female owner of a professional services firm reported that oftentimes primes were late in paying her for subconsultant work. She commented, “... late payments particularly impact MBEs and DBEs because many of us do not have the cash flow or the resources to absorb the impact.” [#CSL-14]

Challenges with the certification process. Some business owners applying for certification reported that the process is lengthy and paper intensive. For example:

- A minority male owner of a professional services firm reported that it took him close to six years to complete the certification process though he holds professional degrees. He commented, “We got a letter and it was apparent that it was going to be difficult to get a certification ... the letter indicated that I was incompetent to run a business, and we were denied DBE/MBE certification from the St. Louis Airport Authority”
[#CSL-15]

Some business owners reported that there are advantages to certification. For example:

- A male minority owner of a construction firm reported that the firm’s revenue increased after his becoming certified. [#CSL-17]
- A male representative of a trade association commented that certification helps minorities and women secure opportunities on union projects. He reported, “... contractors are begging for people of color and women that are up to par”
[#CSL-18]
- A male minority owner of a professional services firm reported, “The MBE and DBE certification significantly helped us maintain and hold onto revenue” [#CSL-19]
- A white female owner of a goods and services firm reported, “The MBE/WBE program is definitely valuable and needed There is still a great deal of disparity out there ... the City of St. Louis is weak ... they don’t have a way of controlling the construction projects” [#CSL-20]

Some business owners reported that certification can be “limiting.” For example:

- A female business owner reported that certification can limit “... the amount or scope of work you can receive.” [#SLC-1]
- Two minority business owners, an Asian American and an African American, both reported that certification makes it difficult “to move beyond the 10 percent requirement” [#SLC-2, #SLC-2a]

The Asian American business owner added, “once one is considered a subcontractor, it is hard to get a prime job ... it is hard to break out of being a DBE firm.” [#SLC-2]

One minority business representative reported that the 51 percent ownership requirement for MBE/WBE certification is not fair. He reported, “if they are 51 percent minority- [or women-owned], they should only get 51 percent of the awards preference to MBE/WBE businesses.” [#SLC-6]

What are public entities in Missouri doing well? Minority and women-owned business representatives offered insights into what is being done well to assist their success. Comments include:

- A minority female owner of a professional services firm reported attending the training opportunities offered by the City of St. Louis to small and minority-owned businesses. She indicated that topics included, “... how to improve on their business process and how to get business in the City.” [#CSL-21]
- A male minority owner of a construction firm reported, “... everyone in the minority business program has [been] very helpful ... the airport programs are just wonderful too.” [#CSL-22]

Mentor-protégé programs are particularly helpful to minority- and women- owned firms. Examples include:

- Many interviewees reported supporting mentor-protégé programs to increase emerging firms’ skills and capacity. [#MO-1]
- A representative of a minority trade association commented that mentor relationships are helpful to business success. He said, “they [mentors] have expertise ... they [minority-owned firms] don’t have to learn by the school of hard knocks.” [#CSL-23]

Some interviewees reported on the need for contracting goals. Minority and women interviewees commented that they “were adamant that inclusion programs remain critical to reduce barriers to equal contracting opportunities ... firms receive little or no work with the impetus of goals.” [#MO-2]

Recommendations or other insights. Recommendations and insights offered to public entities include:

- A female minority owner of a certified professional services firm recommended that subconsultants be provided with opportunities to become primes. She commented, “... if I’m only relegated to be a subconsultant ... I will never really grow” [#CSL-26]
- A male owner of a construction firm recommended that the City of St. Louis offer workshops that are already offered by other public entities. He commented that the airport and other DOTs offer “wonderful class[es].” [#CSL-27]

- A minority owner of a professional services firm suggested setting aside small contracts for MBE/WBEs. He commented, “I would love to see the City of St. Louis put out smaller projects as set-asides so MBE/WBEs can be competitive” [#CSL-28]
- Business owners indicated that outreach to MBE/WBEs would increase the pool of qualified certified firms available in the marketplace. [#CKC-6]
- Other business representatives reported the need for additional outreach to MBE/WBEs by conducting events, seminars and training opportunities. [#MO-3]
- Unbundling of contracts by dollar amount, scope or location was suggested by some business representatives. [#MO-4]