



2019 Caltrans FTA Disparity Study

California Department of Transportation

FINAL REPORT

Final Report

July 8, 2019

2019 Caltrans FTA Disparity Study

Prepared for

California Department of Transportation
1727 30th Street, MS-65
Sacramento, California 95816-7006

Prepared by

BBC Research & Consulting
1999 Broadway, Suite 2200
Denver, Colorado 80202-9750
303.321.2547 fax 303.399.0448
www.bbcresearch.com
bbc@bbcresearch.com



Table of Contents

ES. Executive Summary

A. Analyses in the Disparity Study	ES-2
B. Availability Analysis Results.....	ES-3
C. Utilization Analysis Results	ES-5
D. Disparity Analysis Results.....	ES-6
E. Overall DBE Goal.....	ES-8
F. Program Implementation	ES-11

1. Introduction

A. Background	1-2
B. Study Scope	1-3
C. Study Team Members	1-6

2. Marketplace Conditions

A. Human Capital.....	2-2
B. Financial Capital	2-6
C. Business Ownership	2-9
D. Business Success	2-11
E. Summary.....	2-13

3. Data Collection and Analysis

A. Overview of Transit-related Contracts.....	3-1
B. Collection and Analysis of Contract Data	3-2
C. Collection of Vendor Data	3-4
D. Relevant Geographic Market Area.....	3-4
E. Types of Work Involved in Caltrans Contracts.....	3-5

4. Availability Analysis

A. Purpose of the Availability Analysis	4-1
B. Potentially Available Businesses	4-1
C. Businesses in the Availability Database.....	4-3
D. Availability Calculations	4-4
E. Availability Results.....	4-6
F. Base Figure for Overall DBE Goal.....	4-8
G. Implications for Any DBE Contract Goals.....	4-9

Table of Contents

5. Utilization Analysis

Overall Results	5-1
Contract Role	5-2
Industry	5-2
Concentration of Dollars	5-2

6. Disparity Analysis

A. Overview	6-1
B. Disparity Analysis Results	6-5
C. Statistical Significance	6-7

7. Program Measures

A. Is there evidence of discrimination within the local transportation contracting marketplace for any racial/ethnic or gender groups?	7-2
B. What has been the agency’s past experience in meeting its overall DBE goal?	7-2
C. What has DBE participation been when the agency did not use race- or gender-conscious measures?	7-3
D. What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?	7-3

8. Overall DBE Goal

A. Establishing a Base Figure	8-1
B. Considering a Step-2 Adjustment.....	8-2

9. Program Implementation

A. Federal DBE Program	9-1
B. Additional Considerations	9-9

Appendices

A. Definitions of Terms	
B. Summary of Legal Environment for Caltrans DBE Program	
C. Quantitative Analysis	
D. Qualitative Information about Marketplace Conditions	
E. Availability Analysis Methodology	
F. Disparity Tables	

CHAPTER ES.

Executive Summary

CHAPTER ES.

Executive Summary

As a recipient of United States Department of Transportation (USDOT) funds, the California Department of Transportation (Caltrans) is required to implement the Federal Disadvantaged Business Enterprise (DBE) Program, which is designed to address potential race- and gender-based discrimination in the award and administration of United States Department of Transportation (USDOT)-funded contracts. As part of the Federal DBE Program, Caltrans is required to set an overall goal for DBE participation in its USDOT-funded contracts every three years.¹ In an attempt to meet its overall DBE goal for its Federal Transit Administration- (FTA-) funded contracts each year, Caltrans uses various *race- and gender-neutral measures* as part of its contracting practices. In the context of contracting, race- and gender-neutral measures are measures designed to encourage the participation of all businesses—or, all small businesses—in an organization’s contracting, regardless of the race/ethnicity or gender of the businesses’ owners. In contrast, *race- and gender-conscious measures* are measures specifically designed to encourage the participation of minority- and woman-owned businesses in an organization’s contracting, such as the use of DBE contract goals. Caltrans currently sets race- and gender-conscious goals on a limited number of its FTA contracts as part of its implementation of the Federal DBE Program.

Caltrans retained BBC Research & Consulting (BBC) to conduct a *disparity study* to help evaluate the effectiveness of its implementation of the Federal DBE Program in encouraging the participation of minority- and woman-owned businesses in its Federal Transit Administration (FTA)-funded contracts specifically. There are several reasons why a disparity study is useful to an agency that implements the Federal DBE Program:

- The types of research conducted as part of a disparity study provide information that is useful to implementing the program (e.g., setting an overall DBE goal);
- A disparity study often provides insights into how to improve contracting opportunities for local small businesses, including many minority- and woman-owned businesses;
- An independent, objective review of the participation of minority- and woman-owned businesses in an agency’s contracting is valuable to agency leadership and to external groups that may be monitoring the agency’s contracting practices; and
- Agencies that have successfully defended their implementations of the Federal DBE Program in court have typically relied on information from disparity studies.

BBC summarizes key information from the 2019 Caltrans FTA Disparity Study in five parts:

- A. Analyses in the disparity study;
- B. Availability analysis results;

¹ <http://www.gpo.gov/fdsys/pkg/FR-2011-01-28/html/2011-1531.htm>

- C. Utilization analysis results;
- D. Disparity analysis results;
- E. Overall DBE goal; and
- E. Program implementation.

A. Analyses in the Disparity Study

The crux of the 2019 Caltrans FTA Disparity Study was to assess whether there any differences, or *disparities*, between:

- The percentage of contract dollars that Caltrans spent with minority- and woman-owned businesses on transit-related professional services and goods and services contracts that the agency awarded between October 1, 2014 and September 30, 2017 (i.e., *utilization*, or participation); and
- The percentage of those contract dollars that minority- and woman-owned businesses might be expected to receive based on their availability to perform specific types and sizes of the City's prime contracts and subcontracts (i.e., *availability*).

Along with measuring disparities between the participation and availability of minority- and woman-owned businesses in Caltrans's transit-related contracts, BBC also examined various other information related to agency's implementation of the Federal DBE Program:

- The study team conducted a detailed analysis of relevant federal regulations, case law, state law, and other information to guide the methodology for the disparity study. The analysis included a review of federal and state requirements concerning Caltrans's implementation of the Federal DBE Program (see Appendix B).
- BBC conducted quantitative analyses of the success of minorities; women; and minority- and woman-owned businesses in the local contracting industries. BBC compared business outcomes for minorities; women; and minority- and woman-owned businesses to outcomes for non-Hispanic white men and businesses owned by non-Hispanic white men. In addition, the study team collected qualitative information about potential barriers that small businesses and minority- and woman-owned businesses face in California through public meetings and in-depth interviews (see Chapter 2, Appendix C, and Appendix D).
- BBC estimated the percentage of Caltrans's relevant prime contract and subcontract dollars that minority- and woman-owned businesses are *ready, willing, and able* to perform. That analysis was based on Caltrans data and telephone surveys that the study team conducted with California businesses that work in industries related to the types of transit-related contracting dollars that Caltrans and subrecipient local agencies award. BBC analyzed availability separately for businesses owned by specific minority groups or non-Hispanic white women, and for different types of contracts (see Chapter 4 and Appendix E).
- BBC analyzed prime contract and subcontract dollars that went to minority- and woman-owned businesses on transit-related professional services and goods and services contracts

that Caltrans and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017.² BBC analyzed participation separately for businesses owned by individuals that identify with specific minority groups or as non-Hispanic white women, and for different types of contracts (see Chapter 5).

- BBC examined whether there were any disparities between the participation of minority- and woman-owned businesses on contracts that Caltrans and subrecipient local agencies awarded during the study period and the availability of those businesses for that work. BBC analyzed disparity analysis results separately for businesses owned by individuals that identify with specific minority groups or as non-Hispanic white women, and for different types of contracts. The study team also assessed whether any observed disparities were statistically significant (see Chapter 6 and Appendix F).
- BBC reviewed the measures that Caltrans uses to encourage the participation of small businesses and minority- and woman-owned businesses in its contracting as well as measures that other organizations in California use (see Chapter 7).
- Based on information from the availability analysis and other research, BBC provided Caltrans with information that will help the agency set its overall DBE goal for FTA-funded contracts (see Chapter 8).
- BBC provided guidance related to additional program options and potential changes to current contracting practices for Caltrans’s consideration (see Chapter 9).

The vast majority of Caltrans’ FTA funds go to different local agencies throughout the state who subsequently use those funds to award contracts using a combination of local, state, and federal funding. As a result, some of the largest contracts included in the project team’s analyses only included a relatively small amount of Caltrans funding. In many cases, those local agencies are also recipients of FTA funding themselves and are required to implement the Federal DBE Program. In the future, Caltrans plans to sign memoranda of understanding requiring those agencies to apply their own implementations of the Federal DBE Program to their contracts that include FTA funding from Caltrans.

B. Availability Analysis Results

BBC used a *custom census* approach to analyze the availability of minority- and woman-owned businesses for Caltrans’s transit-related professional services and goods and services prime contracts and subcontracts. BBC’s approach relied on information from surveys that the study team conducted with potentially available businesses located in the relevant geographic market area—which BBC identified as the entire state of California—that perform work within relevant subindustries. That approach allowed BBC to develop a representative and unbiased database of potentially available businesses to estimate the availability of minority- and woman-owned businesses in a statistically-valid manner.

Overall. Figure ES-1 presents dollar-weighted availability estimates by relevant racial/ethnic and gender group for transit-related contracts and procurements that Caltrans awarded during

² Note that prime contractors—not Caltrans—actually *award* subcontracts to subcontractors. However, for simplicity, throughout the report, BBC refers to Caltrans as *awarding* subcontracts.

the study period. Overall, the availability of minority- and woman-owned businesses for that work is 1.8 percent, indicating that minority- and woman-owned businesses might be expected to receive 1.8 percent of the dollars that Caltrans awards in transit-related professional services and goods and services. Non-Hispanic white woman-owned businesses accounted for most of that availability (1.3%). Hispanic American-owned businesses (0.2%) exhibited the highest availability percentages among minority groups.

Figure ES-1.
Overall dollar-weighted availability estimates by racial/ethnic and gender group

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail and results by group, see Figure F-2 in Appendix F.

Source:
 BBC Research & Consulting availability analysis.

Business Group	Availability %
Non-Hispanic white woman-owned	1.3 %
Asian Pacific American-owned	0.1 %
Black American-owned	0.1 %
Hispanic American-owned	0.2 %
Native American-owned	0.0 %
Subcontinent American-owned	0.0 %
Total Minority- and Woman-owned	1.8 %

Contract role. Many minority- and woman-owned businesses are small businesses and thus often work as subcontractors. Because of that tendency, it is useful to examine availability estimates separately for prime contracts and subcontracts. Figure ES-2 presents those results. As shown in Figure ES-2, the availability of minority- and woman-owned businesses considered together was larger for subcontracts (28.7%) than for prime contracts (1.7%), suggesting greater opportunity for minority- and woman-owned businesses for transit-related subcontracts.

Figure ES-2.
Availability estimates by contract role

Note:
 Numbers rounded to nearest tenth of 1 percent. Numbers may not sum exactly to totals.
 For more detail, see Figures F-7 and F-8 in Appendix F.

Source:
 BBC Research & Consulting availability analysis.

Business Group	Contract Role	
	Prime Contracts	Subcontracts
Non-Hispanic white woman-owned	1.2 %	12.6 %
Asian Pacific American-owned	0.1 %	1.4 %
Black American-owned	0.1 %	9.7 %
Hispanic American-owned	0.2 %	3.8 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	0.0 %	1.1 %
Total Minority- and Woman-owned	1.7 %	28.7 %

Industry. BBC also examined availability analysis results separately for transit-related professional services and goods and services contracts. As shown in Figure ES-3, the availability of minority- and woman-owned businesses considered together is higher for professional services contracts (21.8%) than for goods and services contracts (1.2%).

Figure ES-3.
Availability estimates by industry

Note:

Numbers rounded to nearest tenth of 1 percent. Numbers may not sum exactly to totals.

For more detail, see Figures F-5 and F-6 in Appendix F.

Source:

BBC Research & Consulting availability analysis.

Business Group	Industry	
	Professional Services	Goods and Services
Non-Hispanic white woman-owned	10.2 %	1.0 %
Asian Pacific American-owned	4.8 %	0.0 %
Black American-owned	2.4 %	0.1 %
Hispanic American-owned	3.2 %	0.1 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	1.2 %	0.0 %
Total Minority- and Woman-owned	21.8 %	1.2 %

C. Utilization Analysis Results

BBC measured the participation of minority- and woman-owned businesses in Caltrans’s transit-related professional services and goods and services contracts in terms of *utilization*—the percentage of dollars that those businesses received on relevant prime contracts and subcontracts during the study period. BBC measured the participation of minority- and woman-owned businesses in Caltrans’s transit-related contracts regardless of whether they were certified as such with the City.

Overall. Figure ES-4 presents the percentage of contracting dollars that minority- and woman-owned businesses considered together received on transit-related professional services and goods and services contracts that Caltrans and subrecipient local agencies awarded during the study period (including both prime contracts and subcontracts). As shown in Figure ES-4, overall, minority- and woman-owned businesses considered together received 4.8 percent of those dollars. Only a small percentage of those dollars—0.4 percent—went to certified DBEs. Hispanic American-owned businesses (4.5%) showed higher levels of participation in Caltrans’s transit-related contracts than all other groups.

Figure ES-4.
Overall utilization analysis results

Note:

Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.

For more detail, see Figure F-2 in Appendix F.

Source:

BBC Research & Consulting utilization analysis.

Business Group	Utilization
Non-Hispanic white woman-owned	0.2 %
Asian Pacific American-owned	0.1 %
Black American-owned	0.0 %
Hispanic American-owned	4.5 %
Native American-owned	0.0 %
Subcontinent American-owned	0.1 %
Total Minority- and Woman-owned	4.8 %

Contract role. Many minority- and woman-owned businesses are small businesses and, thus, often work as subcontractors. Because of that tendency, it is useful to examine utilization results separately for prime contracts and subcontracts. Figure ES-5 presents those results. As shown in Figure ES-5, the participation of minority- and woman-owned businesses considered together was much higher in transit-related subcontracts (33.5%) than prime contracts (4.7%). However, the vast majority of contracting dollars that Caltrans and subrecipient local agencies awarded during the study period were associated with prime contracts.

Figure ES-5.
Utilization analysis results
by contract role

Note:
Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.
For more detail, see Figures F-7 and F-8 in Appendix F.

Source:
BBC Research & Consulting utilization analysis.

Business Group	Contract Role	
	Prime Contracts	Subcontracts
Non-Hispanic white woman-owned	0.1 %	19.3 %
Asian Pacific American-owned	0.0 %	3.7 %
Black American-owned	0.0 %	0.0 %
Hispanic American-owned	4.5 %	8.5 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	0.1 %	2.0 %
Total Minority- and Woman-owned	4.7 %	33.5 %

Industry. BBC also examined utilization analysis results separately for Caltrans’s transit-related professional services and goods and services contracts. As shown in Figure ES-6, the participation of minority- and woman-owned businesses considered together was higher in professional services contracts (22.4%) than goods and services contracts (4.3%).

Figure ES-6.
Utilization results by relevant
industry

Note:
Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.
For more detail, Figures F-5 and F-6 in Appendix F

Source:
BBC Research & Consulting utilization analysis.

Business Group	Industry	
	Professional Services	Goods and Services
Non-Hispanic white woman-owned	6.8 %	0.0 %
Asian Pacific American-owned	1.9 %	0.0 %
Black American-owned	0.0 %	0.0 %
Hispanic American-owned	11.6 %	4.3 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	2.1 %	0.0 %
Total Minority- and Woman-owned	22.4 %	4.3 %

D. Disparity Analysis Results

Although information about the participation of minority- and woman-owned businesses in Caltrans’s transit-related contracts is useful on its own, it is even more useful when compared with the level of participation that might be expected based on these businesses’ availability for Caltrans work. BBC calculated *disparity indices* for each relevant business group and for various contract sets by dividing percent participation by percent availability and multiplying by 100. A disparity index of 100 indicates an exact match between participation and availability for a particular group for a particular contract set (referred to as *parity*). A disparity index of less than 100 indicates a disparity between participation and availability. A disparity index of less than 80 indicates a *substantial* disparity between participation and availability.

Overall. Figure ES-7 presents disparity indices for transit-related prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period. For reference, there is a line drawn at a disparity index of 100 (line of parity) and at a disparity index level of 80 (line of substantial disparity). As shown in Figure ES-7, overall, the participation of minority- and woman-owned businesses in transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period exceeded what one might expect based on the availability of those businesses for that work (disparity index of 200+). However, disparity indices varied substantially across individual groups:

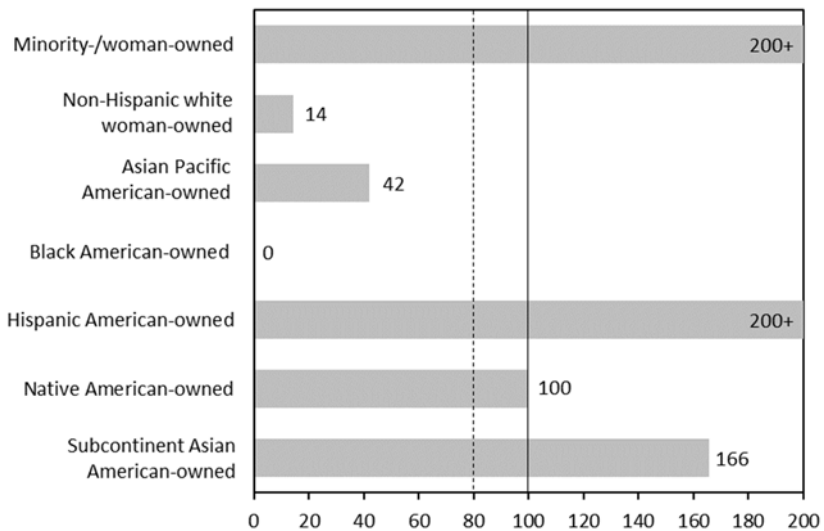
- Three groups exhibited disparity indices substantially below parity: non-Hispanic white woman-owned businesses (disparity index of 14), Asian Pacific American-owned businesses (disparity index of 42), and Black American-owned businesses (disparity index of 0).
- Hispanic American-owned businesses (disparity index of 200+), Native American-owned businesses (disparity index of 100), and Subcontinent Asian American-owned businesses (disparity index of 166) did not exhibit a disparity.³

Caltrans and subrecipient local agencies used DBE contract goals in awarding a small number of transit-related contracts during the study period (13 prime contracts and subcontracts in total).

Figure ES-7.
Disparity indices by group

Note:
Numbers rounded to nearest whole number.
For more detail, see Figure F-2 in Appendix F.

Source:
BBC Research & Consulting disparity analysis.



Contract role. Subcontracts tend to be much smaller in size than prime contracts. As a result, subcontracts are often more accessible than prime contracts to minority- and woman-owned businesses. Thus, it might be reasonable to expect better outcomes for minority- and woman-owned businesses on subcontracts than on prime contracts. Figure ES-8 presents disparity indices for all relevant groups separately for prime contracts and subcontracts. As shown in Figure ES-8, minority- and woman-owned businesses considered together exceeded parity on both prime contracts (disparity index of 200+) and subcontracts (disparity index of 117). Results for individual groups indicated that:

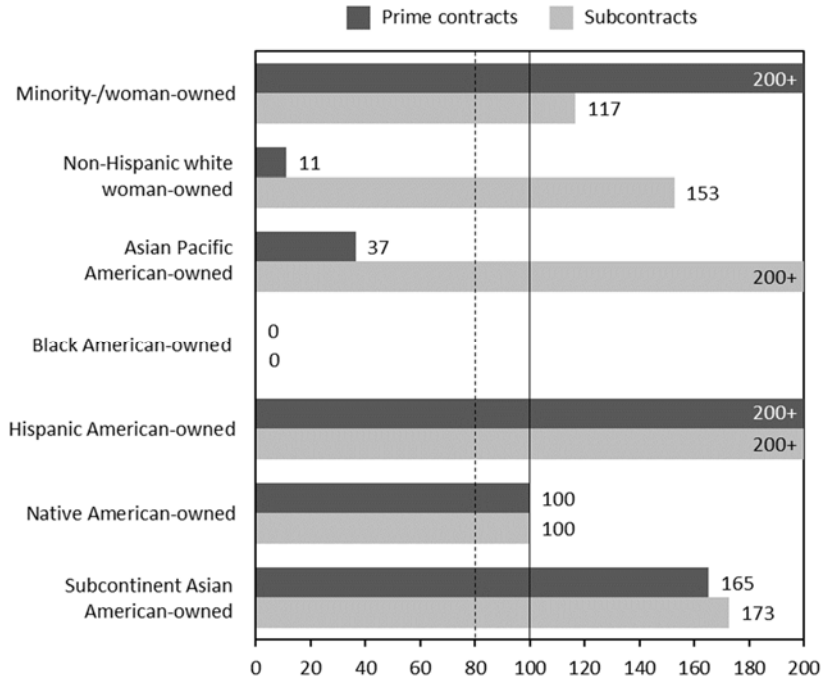
- Three groups exhibited disparity indices substantially below parity on prime contracts: non-Hispanic white woman-owned businesses (disparity index of 11), Asian Pacific American-owned businesses (disparity index of 37), and Black American-owned businesses (disparity index of 0).
- Black American-owned businesses were the only group that exhibited a disparity index substantially below parity on subcontracts (disparity index of 0).

³ Native American-owned businesses showed a disparity index of 100, but they did not receive any dollars on Caltrans’s transit-related contracts during the study nor did the availability analysis show them to be available for any.

Figure ES-8.
Disparity indices for
prime contracts and
subcontracts

Note:
 Numbers rounded to nearest whole
 number.
 For more detail, see Figures F-7 and
 F-8 in Appendix F.

Source:
 BBC Research & Consulting disparity
 analysis.



Industry. BBC examined disparity analysis results separately for transit-related professional services and goods and services contracts. Figure ES-9 presents disparity indices for all relevant groups by contracting area. Overall, minority- and woman-owned businesses did not show disparities for professional services contracts (disparity index of 102) or for goods and services contracts (disparity index of 200+). However, disparity analyses results differed by contracting area and group:

- Three groups exhibited disparity indices substantially below parity on professional services contracts: non-Hispanic white woman-owned businesses (disparity index of 66), Asian Pacific American-owned businesses (disparity index of 39), and Black American-owned businesses (disparity index of 0).
- Two groups exhibited disparity indices substantially below parity on goods and services contracts: non-Hispanic white woman-owned businesses (disparity index of 0) and Black American-owned businesses (disparity index of 0).

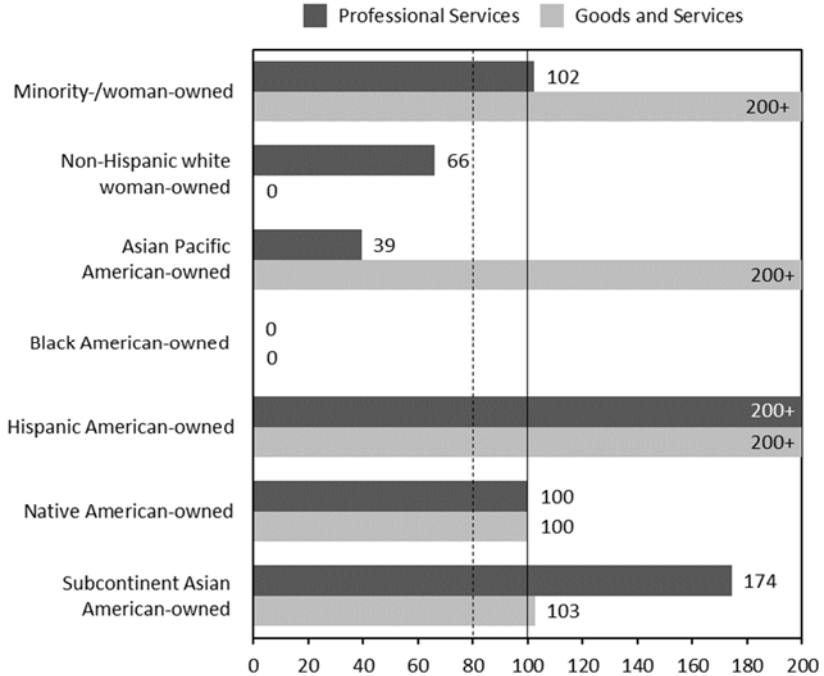
E. Overall DBE Goal

As part of its implementation of the Federal DBE Program, Caltrans is required to set an overall goal for DBE participation in its FTA-funded contracts. Agencies that are direct recipients and implement the Federal DBE Program must develop overall DBE goals every three years. However, the overall DBE goal is an *annual* goal in that agencies must monitor DBE participation in their FTA-funded contracts every year. 49 Code of Federal Regulations (CFR) Part 26.45 outlines a two-step process for agencies to set their overall DBE goals: 1) establishing a *base figure*; and 2) considering a *step-2 adjustment*.

Figure ES-9.
Disparity indices for
professional services
and goods and services
contracts

Note:
 Numbers rounded to nearest whole number.
 For more detail, see Figures F-5 and F-6 in Appendix F.

Source:
 BBC Research & Consulting disparity analysis.



Establishing a base figure. For the purposes of helping Caltrans establish a base figure for its overall DBE goal, BBC considered information about the availability of *potential DBEs*—minority- and woman-owned businesses that are currently DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 CFR Part 26.65—for FTA-funded prime contracts and subcontracts that Caltrans awarded during the study period. Figure ES-10 presents the availability of potential DBEs for the FTA-funded professional services and goods and services prime contracts and subcontracts that Caltrans awarded during the study period. The availability estimates presented in Figure ES-10 reflect a weight of 0.02 for professional services contracts and 0.98 for goods and services contracts, based on the volume of FTA-funded contract dollars that Caltrans and subrecipient local agencies awarded during the study period. If Caltrans expects that the relative distributions of FTA-funded contracts will change substantially in the future, the agency might consider applying different weights to the corresponding base figure components.

As show in Figure ES-10, potential DBEs might be expected to receive 1.7 percent of Caltrans’s FTA-funded prime contract and subcontract dollars based on their availability for that work. Caltrans might consider 1.7 percent as the base figure for its overall DBE goal if the agency anticipates that the types, sizes, and locations of FTA-funded contracts that it will award in the future will be similar to the FTA-funded contracts that it awarded during the study period.

Figure ES-10.
Availability components of
the base figure

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

See Figures F-17, F-18, and F-19 in Appendix F for corresponding disparity results tables.

Source:

BBC Research & Consulting availability analysis.

Potential DBEs	Availability Percentage		
	Professional Services	Goods and services	Weighted Average
Non-Hispanic white woman owned	10.5 %	1.0 %	1.2 %
Asian Pacific American owned	5.3 %	0.0 %	0.1 %
Black American owned	2.4 %	0.1 %	0.1 %
Hispanic American owned	3.0 %	0.1 %	0.2 %
Native American owned	0.0 %	0.0 %	0.0 %
Subcontinent Asian American owned	1.0 %	0.0 %	0.0 %
Total potential DBEs	22.3 %	1.2 %	1.7 %
Industry weight	2 %	98 %	

Considering a step-2 adjustment. The Federal DBE Program requires agencies to consider potential step-2 adjustments to their base figures as part of determining their overall DBE goals and outlines several factors that agencies must consider when assessing whether to make any adjustments:

- Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years;
- Information related to employment, self-employment, education, training, and unions;
- Any disparities in the ability of DBEs to get financing, bonding, and insurance; and
- Other relevant data.⁴

BBC completed an analysis of each of the above step-2 factors as part of providing guidance related to Caltrans’s overall DBE goal. Much of the information that BBC examined was not easily quantifiable but is still relevant to Caltrans as it determines whether to make a step-2 adjustment. Taken together, the quantitative and qualitative evidence that the study team collected as part of the disparity study may support a step-2 adjustment to the base figure as Caltrans considers setting its overall DBE goal. Based on information from the disparity study, there are reasons why Caltrans might consider an adjustment to its base figure:

- Caltrans’s utilization reports for FFYs 2015 through 2017 indicated median annual DBE participation of 8.3 percent for those years, which is lower than its base figure.⁵USDOT’s “Tips for Goal-Setting” suggests that an agency can make a step-2 adjustment by averaging the base figure with past median DBE participation. If Caltrans were to adjust its base figure based on past DBE participation, it might consider taking the average of the 1.7 base figure and the 8.3 percent past DBE participation for an overall DBE goal of 5.0 percent.

⁴ 49 CFR Section 26.45.

⁵ In contrast to information from Caltrans’s utilization reports, BBC’s analysis of DBE participation in Caltrans’s FTA-funded contracts during the study period indicates participation of only 0.4 percent.

- Caltrans might adjust its base figure upward to account for barriers that minorities and women face in California related to business ownership. BBC analyzed the potential impact that race/ethnicity and gender have on business ownership and availability and found that the availability of minority- and woman-owned businesses for Caltrans' FTA-funded contracts might be 4.6 percent if minorities and women owned professional services and goods and services businesses in California at the same rate as similarly-situated minority- and woman-owned businesses.
- Caltrans might also adjust its base figure upward in light of evidence of barriers that affect minorities; women; and minority- and woman-owned businesses in obtaining financing, bonding, and insurance and evidence that minority- and woman-owned businesses are less successful than comparable businesses owned by non-Hispanic white men.

USDOT regulations clearly state that Caltrans is required to review a broad range of information when considering whether it is necessary to make a step-2 adjustment—either upward or downward—to its base figure. However, Caltrans is not required to make an adjustment as long as it can explain what factors it considered and can explain its decision as part of its goal-setting process.

Additional considerations. Because the vast majority of Caltrans' FTA funds go to different local agencies throughout the state who subsequently use those funds to award contracts using a combination of local, state, and federal funding, Caltrans should consider establishing its overall DBE goal based only on FTA-funded contracts where Caltrans is responsible for federal compliance.

F. Program Implementation

Chapter 9 reviews additional information relevant to Caltrans's implementation of the Federal DBE Program, including program measures that the agency could consider using to encourage the participation of minority- and woman-owned businesses in its contracting. Caltrans should review that information as well as other relevant information as it makes decisions concerning its future implementation of the Federal DBE Program. To that end, BBC presents the following areas of potential refinement for Caltrans's consideration:

- Caltrans should consider continuing its efforts to network with minority- and woman-owned businesses, but might also consider engaging the contracting community to better understand how it can facilitate events that directly address businesses' needs. Caltrans should also consider broadening its efforts to include more partnerships with local trade organizations and other public agencies.
- To further encourage the participation of small businesses—including many minority- and woman-owned businesses—Caltrans should consider making efforts to unbundle relatively large contracts into several smaller contracts. Doing so would result in that work being more accessible to small businesses, which in turn might increase opportunities for minority- and woman-owned businesses and result in greater minority- and woman-owned business participation.
- Caltrans should consider exploring ways to increase prime contracting and subcontracting opportunities for small businesses, including many minority- and woman-owned

businesses. With regard to prime contract opportunities, Caltrans might consider setting aside small prime contracts for small business bidding. With regard to subcontract opportunities, Caltrans could consider implementing a program that requires prime contractors to include minimum levels of subcontracting as part of their bids and proposals.

- Caltrans should consider ensuring that it is collecting comprehensive contract and subcontract data on all contracts and projects, including those contracts that subrecipient local agencies award and manage. Caltrans should consider collecting information about amounts committed to all prime contractors and subcontractors along with contact and business information about vendors. In addition, Caltrans should consider requiring prime contractors to submit subcontractor payment data as part of the invoicing process and as a condition of receiving payment.
- Caltrans recently began implementing a monitoring program to ensure that subrecipient local agencies are appropriately implementing the Federal DBE Program. Caltrans District Transit Representatives conduct compliance reviews of subrecipient local agencies to ensure that local agencies are properly implementing management and oversight practices. Caltrans should continue those efforts and determine whether additional training is required to ensure that subrecipient local agencies understand how to implement all aspects of the Federal DBE program.

As part of the disparity study, the study team also examined information concerning conditions in the local marketplace for minorities; women; and minority- and woman-owned businesses including results for different racial/ethnic and gender groups. Caltrans should review the full disparity study report, as well as other information it may have, in determining what measures it should use as part of its implementation of the Federal DBE Program to encourage the participation of minority- and woman-owned businesses in its FTA-funded contracting.

CHAPTER 1.

Introduction

CHAPTER 1.

Introduction

As a United States Department of Transportation (USDOT) fund recipient, the California Department of Transportation (Caltrans) implements the Federal Disadvantaged Business Enterprise (DBE) Program, which is designed to address potential discrimination against DBEs in the award and administration of USDOT-funded contracts. In connection with the USDOT funds that it receives, Caltrans is responsible for managing Federal Transit Administration (FTA) grants that it awards to more than 300 transit agencies throughout California. Caltrans retained BBC Research & Consulting (BBC) to conduct a *disparity study* to help evaluate the effectiveness of its implementation of the Federal DBE Program in encouraging the participation of minority- and woman-owned businesses in the contracts that result from those grants as well as from the FTA-funded contracts that the agency awards itself.

A disparity study examines whether there are any disparities, or differences, between:

- The percentage of prime contract and subcontract dollars that an agency spent with minority- and woman-owned businesses during a particular time period (i.e., *utilization*); and
- The percentage of prime contract and subcontract dollars that minority- and woman-owned businesses might be expected to receive based on their availability to perform specific types and sizes of contracts that the agency awards (i.e., *availability*).

Disparity studies also examine other quantitative and qualitative information related to:

- Local marketplace conditions for minority- and woman-owned businesses;
- Contracting practices and business programs that the agency currently has in place; and
- Various aspects of the Federal DBE Program and implementing it in a legally defensible manner.

There are several reasons why a disparity study is useful to an agency that implements the Federal DBE Program:

- The types of research conducted as part of a disparity study provide information that is useful to implementing the program effectively (e.g., setting an overall DBE goal).
- A disparity study often provides insights into how to improve contracting opportunities for local small businesses, including many minority- and woman-owned businesses.
- An independent, objective review of the participation of minority- and woman-owned businesses in an agency's contracting is valuable to agency leadership and to external groups that may be monitoring the agency's contracting practices.
- State and local agencies that have successfully defended implementations of the Federal DBE Program in court have typically relied on information from disparity studies.

BBC introduces the 2019 Caltrans FTA Disparity Study in three parts:

- A. Background;
- B. Study scope; and
- C. Study team members.

A. Background

The Federal DBE Program is a program designed to increase the participation of minority- and woman-owned businesses in USDOT-funded contracts. As a recipient of USDOT funds, Caltrans must implement the Federal DBE Program and comply with corresponding federal regulations.

Setting an overall goal for DBE participation. As part of the Federal DBE Program, every three years an agency is required to set an overall goal for DBE participation in its USDOT-funded contracts.¹ Although an agency is required to set the goal every three years, the overall DBE goal is an annual goal in that the agency must monitor DBE participation in its USDOT-funded contracts each year. If DBE participation for a particular year is less than the overall DBE goal, then the agency must analyze the reasons for the difference and establish specific measures that enable it to meet the goal in the next year.

To begin the goal-setting process, an agency must develop a base figure based on demonstrable evidence of the availability of DBEs to participate in its USDOT-funded contracts. Then, the agency must consider conditions in the local marketplace for minority- and woman-owned businesses and make an upward, downward, or no adjustment to its base figure as it determines its overall DBE goal (referred to as a “step-2” adjustment).

Projecting the portion of the overall DBE goal to be met through race- and gender-neutral means. According to 49 Code of Federal Regulations (CFR) Part 26, an agency must meet the maximum feasible portion of its overall DBE goal through the use of *race- and gender-neutral program measures*.² Race- and gender-neutral measures are measures that are designed to encourage the participation of all businesses—or all small businesses—in an agency’s contracting (for examples of race- and gender-neutral measures, see 49 CFR Section 26.51(b)). Participation in such measures is not limited to minority- and woman-owned businesses or to certified DBEs. If an agency cannot meet its goal solely through the use of race- and gender-neutral measures, then it must consider also using *race- and gender-conscious program measures*. Race- and gender-conscious measures are designed to specifically encourage the participation of minority- and woman-owned businesses in an agency’s contracting (e.g., using DBE goals on individual contracts). Every three years, the Federal DBE Program requires an agency to project the portion of its overall DBE goal that it will meet through race- and gender-neutral measures and the portion that it will meet through any race- or gender-conscious measures. USDOT has outlined a number of factors for an agency to consider when making such determinations.³

¹ <http://www.gpo.gov/fdsys/pkg/FR-2011-01-28/html/2011-1531.htm>

² 49 CFR Section 26.51.

³ <http://www.dotcr.ost.dot.gov/Documents/Dbe/49CFRPART26.doc>

Determining whether all groups will be eligible for race- and gender-conscious measures. If an agency determines that the use of race- and gender-conscious measures—such as DBE contract goals—are appropriate for its implementation of the Federal DBE Program, then it must also determine which racial/ethnic or gender groups are eligible for participation in those measures. Eligibility for such measures is limited to only those racial/ethnic or gender groups for which compelling evidence of discrimination exists in the local marketplace. USDOT provides a waiver provision if an agency determines that its implementation of the Federal DBE Program should only include certain racial/ethnic or gender groups in the race- or gender-conscious measures that it uses.

Implementation. Caltrans only uses race- and gender-neutral program measures as part of its implementation of the Federal DBE Program. That is, the agency did not use DBE contract goals or any other race- and gender-conscious measures to contracts it awarded during the study period (i.e., October 1, 2014 through September 30, 2017). However, subrecipient local agencies used DBE contract goals to award a small number of FTA-funded contracts that they awarded during the study period. Caltrans does not use any race- or gender-conscious measures when awarding state-funded contracts either, because of Proposition 209. Proposition 209, which California voters passed in 1996, amended the California constitution to prohibit the use of race- and gender-based preferences in public contracting, public employment, and public education. Thus, Proposition 209 prohibited government agencies in California, including Caltrans, from using race- or gender-conscious measures when awarding state-funded contracts. (However, Proposition 209 did not prohibit those actions if an agency is required to take them “to establish or maintain eligibility for any federal program, if ineligibility would result in a loss of federal funds to the state.”)

B. Study Scope

Information from the disparity study will help Caltrans continue to encourage the participation of minority- and woman-owned businesses in its FTA-funded contracts. In addition, information from the study will help Caltrans continue to implement the Federal DBE Program in a legally defensible manner.

Definitions of minority- and woman-owned businesses. To interpret the core analyses presented in the disparity study, it is useful to understand how the study team treats minority- and woman-owned businesses and businesses that are certified as DBEs in California.

Minority- and woman-owned businesses. The study team focused its analyses on the minority- and woman-owned business groups that the Federal DBE Program presumes to be disadvantaged:

- Asian Pacific American-owned businesses;
- Black American-owned businesses;
- Hispanic American-owned businesses;
- Native American-owned businesses;

- Subcontinent Asian American-owned businesses; and
- Woman-owned businesses.

To avoid any double-counting, BBC classified minority woman-owned businesses with their corresponding minority groups. (For example, Black American woman-owned businesses were classified, along with businesses owned by Black American men, as Black American-owned businesses.) Thus, *woman-owned businesses* in this report refers to non-Hispanic white woman-owned businesses.

Certified DBEs. Certified DBEs are businesses owned by socially and economically disadvantaged individuals specifically certified as DBEs through the California Unified Certification Program (CUCP). A determination of DBE eligibility includes assessing businesses’ gross revenues and business owners’ personal net worth (maximum of \$1.32 million excluding equity in a home and in the business). Some socially and economically disadvantaged businesses do not qualify as DBEs because of gross revenue or net worth requirements.⁴

Potential DBEs. *Potential DBEs* are socially and economically disadvantaged businesses that are DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 CFR Part 26 (regardless of actual certification). The study team did not count businesses that have been decertified or have graduated from the DBE Program as potential DBEs in this study. BBC examined the availability of potential DBEs as part of helping Caltrans calculate the base figure of its overall DBE goal. Figure 1-1 provides further explanation of BBC’s definition of potential DBEs.

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

Figure 1-1. Definition of potential DBEs

To help Caltrans calculate its overall DBE goal, BBC did not include the following types of minority- and woman-owned businesses in its definition of potential DBEs:

- Minority- and woman-owned businesses that have graduated from the DBE Program and have not been recertified;
- Minority- and woman-owned businesses that are not currently DBE-certified but that have applied for DBE certification and have been denied; and
- Minority- and woman-owned businesses that are not currently DBE-certified and that appear to have average annual revenues over the most recent three years so high as to deem them ineligible for DBE certification.

At the time of this study, the overall revenue limit for DBE certification was \$23,980,000 based on a three-year average of gross receipts. There were lower revenue limits for specific subindustries according to the United States Small Business Administration (SBA) small business size standards. Only a few minority- and woman-owned businesses appeared to have exceeded those revenue limits based on information that they provided as part of availability surveys.

Business owners must also meet USDOT personal net worth limits for their businesses to qualify for DBE certification. The personal net worth of business owners was not available as part of this study and thus was not considered when determining potential DBE status.

⁴ Businesses owned by non-Hispanic white men can be certified as DBEs if those businesses meet the requirements in 49 CFR Part 26.

Analyses in the disparity study. BBC examined whether there are any disparities between the participation and availability of minority- and woman-owned businesses in Caltrans contracts. The study focused on transit-related professional services and goods and services contracts that Caltrans and subrecipient local agencies awarded during the study period. In addition to the core utilization, availability, and disparity analyses, the disparity study also includes:

- An analysis of local marketplace conditions for minority- and woman-owned businesses;
- An assessment of Caltrans's contracting practices and business assistance programs; and
- Other information for Caltrans to consider as it refines its implementation of the Federal DBE Program.

That information is organized in the disparity study report in the following manner:

Marketplace conditions. BBC conducted quantitative analyses of the success of minorities; women; and minority- and woman-owned businesses in the local contracting industries. BBC compared business outcomes for minorities, women, and minority- and woman-owned businesses to outcomes for non-Hispanic white men and majority-owned businesses. In addition, the study team collected qualitative information about potential barriers that small businesses and minority- and woman-owned businesses face in California through public meetings and in-depth interviews. Information about marketplace conditions is presented in **Chapter 2**, **Appendix C**, and **Appendix D**.

Legal framework. The study team conducted a detailed analysis of relevant federal regulations, case law, state law, and other information to guide the methodology for the disparity study. The analysis included a review of federal and state requirements concerning Caltrans's implementation of the Federal DBE Program. The legal framework and analysis for the study is presented in **Appendix B**.

Data collection and analysis. BBC examined data from multiple sources to complete the utilization and availability analyses, including telephone surveys that the study team conducted with hundreds of businesses throughout California. The scope of the study team's data collection and analysis as it pertains to the utilization and availability analyses is presented in **Chapter 3**.

Availability analysis. BBC estimated the percentage of Caltrans's prime contract and subcontract dollars that minority- and woman-owned businesses are *ready, willing, and able* to perform. That analysis was based on Caltrans data and telephone surveys that the study team conducted with California businesses that work in industries related to the types of contracting dollars that Caltrans and subrecipient local agencies award. BBC analyzed availability separately for businesses owned by specific minority groups or non-Hispanic white women and for different types of contracts. Results from the availability analysis are presented in **Chapter 4** and **Appendix E**.

Utilization analysis. BBC analyzed prime contract and subcontract dollars that went to minority- and woman-owned businesses on contracts that Caltrans and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017. BBC analyzed participation

separately for businesses owned by individuals that identify with specific minority groups or as non-Hispanic white women and for different types of contracts. Results from the utilization analysis are presented in **Chapter 5**.

Disparity analysis. BBC examined whether there were any disparities between the participation of minority- and woman-owned businesses on contracts that Caltrans and subrecipient local agencies awarded during the study period and the availability of those businesses for that work. BBC analyzed disparity analysis results separately for businesses owned by individuals that identify with specific minority groups or as non-Hispanic white women and for different types of contracts. The study team also assessed whether any observed disparities were statistically significant. Results from the disparity analysis are presented in **Chapter 6** and **Appendix F**.

Program measures. BBC reviewed the measures that Caltrans uses to encourage the participation of small businesses and minority- and woman-owned businesses in its contracting as well as measures that other organizations in California use. That information is presented in **Chapter 7**.

Overall DBE goal. Based on information from the availability analysis and other research, BBC provided Caltrans with information that will help the agency set its overall DBE goal for FTA-funded contracts, including the base figure and consideration of a step-2 adjustment. Information about Caltrans's overall DBE goal is presented in **Chapter 8**.

Implementation of the Federal DBE Program. BBC reviewed Caltrans's contracting practices and the program measures that it uses as part of its implementation of the Federal DBE Program. BBC provided guidance related to additional program options and potential changes to current contracting practices. The study team's review and guidance is presented in **Chapter 9**.

C. Study Team Members

The BBC study team was made up of six firms that, collectively, possess decades of experience related to conducting disparity studies in connection with the Federal DBE Program.

BBC (prime consultant). BBC is a Denver-based disparity study and economic research firm. BBC had overall responsibility for the study and performed all of the quantitative analyses.

P. Dowell & Associates (PDA). PDA is a Black American woman-owned professional services firm based in Cerritos, California. PDA conducted in-depth interviews with California businesses as part of the study team's qualitative analyses of marketplace conditions.

L. Luster & Associates (LLA). LLA is a Black American woman-owned professional services firm based in Oakland, California. LLA conducted in-depth interviews with California businesses as part of the study team's qualitative analyses of marketplace conditions.

Customer Research International (CRI). CRI is a Subcontinent Asian American-owned survey fieldwork firm based in San Marcos, Texas. CRI conducted telephone surveys with California businesses to gather information for the utilization and availability analyses.

GCAP Services (GCAP). GCAP is a minority-owned professional services firm based in Costa Mesa and Sacramento, California. GCAP assisted the project team with community engagement and data collection tasks.

Holland & Knight. Holland & Knight is a law firm with offices throughout the country. Holland & Knight provided legal consulting services throughout the course of the study.

CHAPTER 2.

Marketplace Conditions

CHAPTER 2.

Marketplace Conditions

Historically, there have been myriad legal, economic, and social obstacles that have impeded minorities and women from acquiring the human and financial capital necessary to start and operate successful businesses. Barriers such as slavery, racial oppression, segregation, race-based displacement, and labor market discrimination produced substantial disparities for minorities (and women), the effects of which are still apparent today. Those barriers limited opportunities for minorities in terms of both education and workplace experience.^{1, 2, 3, 4} Similarly, many women were restricted to either being homemakers or taking gender-specific jobs with low pay and little chance for advancement.⁵

Minorities and women in California have faced similar barriers. For example, in the 19th and early 20th centuries, Chinese Americans and Japanese Americans were barred from entering California and were prevented from owning agricultural land.⁶ Discriminatory treatment was also common for Black Americans in California. Non-Hispanic white Californians used violence, intimidation, and discriminatory public policy to force Black Americans to live in racially-segregated neighborhoods and attend racially-segregated schools.^{7, 8} In addition, racially-motivated violence and displacement were common features of Native American life in the state.⁹ Disparate treatment of minorities and women also extended into the labor market. Mexican Americans were concentrated primarily in the migrant farmworker industry in California with little prospect for advancement and were commonly subjected to discriminatory treatment on the job.¹⁰ Women also found it hard to gain a foothold in the labor market.

In the middle of the 20th century, many legal and workplace reforms opened up new opportunities for minorities and women. *Brown v. Board of Education*, *The Equal Pay Act*, *The Civil Rights Act*, and *The Women's Educational Equity Act* outlawed many forms of race- and gender-based discrimination. Workplaces adopted formalized personnel policies and implemented programs to diversify their staffs.¹¹ Those reforms increased diversity in workplaces and reduced educational and employment disparities for minorities and women^{12, 13, 14, 15} However, despite those improvements, minorities and women continue to face barriers—such as incarceration, residential segregation, and gender-disproportionate family responsibilities—that have made it more difficult to acquire the human and financial capital necessary to start and operate businesses successfully.^{16, 17, 18}

Federal Courts and the United States Congress have considered any barriers that minorities, women, and minority- and woman-owned businesses face in a particular marketplace as evidence for the existence of race- and gender-based discrimination in that marketplace.^{19, 20, 21} The United States Supreme Court and other federal courts have held that analyses of conditions in a local marketplace for minorities; women; and minority- and woman-owned businesses are instructive in determining whether agencies' implementations of minority- and woman-owned business programs are appropriate and justified. Those analyses help agencies determine whether they are *passively participating* in any race- or gender-based discrimination that makes

it more difficult for minority- and woman-owned businesses to successfully compete for their contracts. Passive participation in discrimination means that agencies unintentionally perpetuate race- or gender-based discrimination simply by operating within discriminatory marketplaces. Many courts have held that passive participation in any race- or gender-based discrimination establishes a *compelling governmental interest* for agencies to take remedial action to address such discrimination.^{22, 23, 24}

The study team conducted extensive analyses to assess whether minorities; women; and minority- and woman-owned businesses face any barriers in the California construction; professional services; and goods and services industries. The study team also examined the potential effects that any such barriers have on the formation and success of minority- and woman-owned businesses; their participation in contracts that the California Department of Transportation awards; and their availability for that work. The study team examined local marketplace conditions primarily in four areas:

- **Human capital**, to assess whether minorities and women face any barriers related to education, employment, and gaining managerial experience in relevant industries;
- **Financial capital**, to assess whether minorities and women face any barriers related to wages, homeownership, personal wealth, and access to financing;
- **Business ownership**, to assess whether minorities and women own businesses at rates that are comparable to those of non-Hispanic white men; and
- **Success of businesses**, to assess whether minority- and woman-owned businesses have outcomes that are similar to those of businesses owned by non-Hispanic white men.

The information in Chapter 2 comes from existing research in the area of race- and gender-based discrimination as well as from primary research that the study team conducted of current marketplace conditions. Additional quantitative and qualitative analyses of marketplace conditions are presented in Appendix C and Appendix D, respectively.

A. Human Capital

Human capital is the collection of personal knowledge, behavior, experience, and characteristics that make up an individual's ability to perform and succeed in particular labor markets. Human capital factors such as education, business experience, and managerial experience have been shown to be related to business success.^{25, 26, 27, 28} Any race- or gender-based barriers in those areas may make it more difficult for minorities and women to work in relevant industries and prevent some of them from starting and operating businesses successfully.

Education. Barriers associated with educational attainment may preclude entry or advancement in certain industries, because many occupations require at least a high school diploma, and some occupations—such as occupations in professional services—require at least a four-year college degree. In addition, educational attainment is a strong predictor of both income and personal wealth, which are both shown to be related to business formation and success.^{29, 30} Nationally, minorities lag behind non-Hispanic whites in terms of both educational attainment and the quality of education that they receive.^{31, 32} Minorities are far more likely than non-Hispanic whites to attend schools that do not provide access to core classes in science and

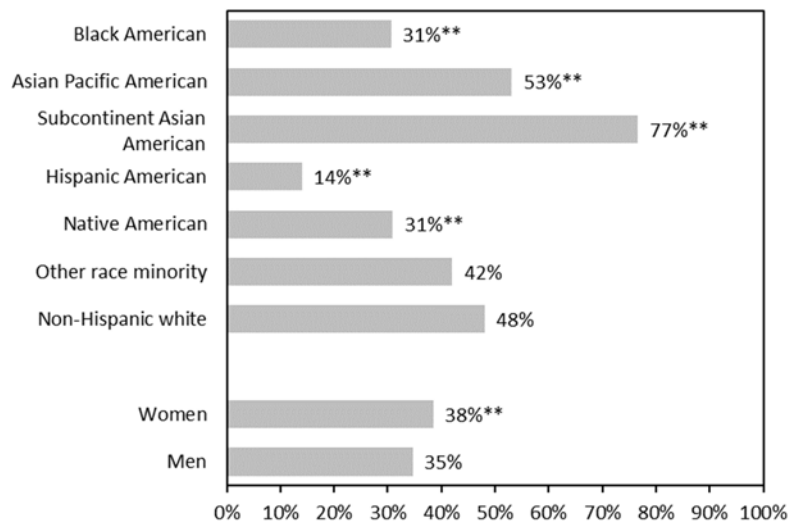
math.³³ In addition, Black American students are more than three times as likely as non-Hispanic whites to be expelled or suspended from high school.³⁴ For those and other reasons, minorities are far less likely than non-Hispanic whites to attend college; enroll at highly or moderately selective four-year institutions; or earn college degrees.³⁵

Educational outcomes for minorities in California are similar to those for minorities nationwide. In California public schools, Black Americans; Hispanic Americans; and American Indian and Alaska Natives exhibit substantially higher dropout rates than non-Hispanic whites.³⁶ In addition, the study team’s analyses of the California labor force indicate that certain minority groups are far less likely than non-Hispanic whites to earn a college degree. Figure 2-1 presents the percentage of California workers that have earned a four-year college degree by racial/ethnic and gender group. As shown in Figure 2-1, Black American, Hispanic American, and Native American workers in California are substantially less likely than non-Hispanic white workers to have a four-year college degree.

Figure 2-1.
Percentage of all California workers 25 and older with at least a four-year degree, 2012-2016

Note:
 ** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level.

Source:
 BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.



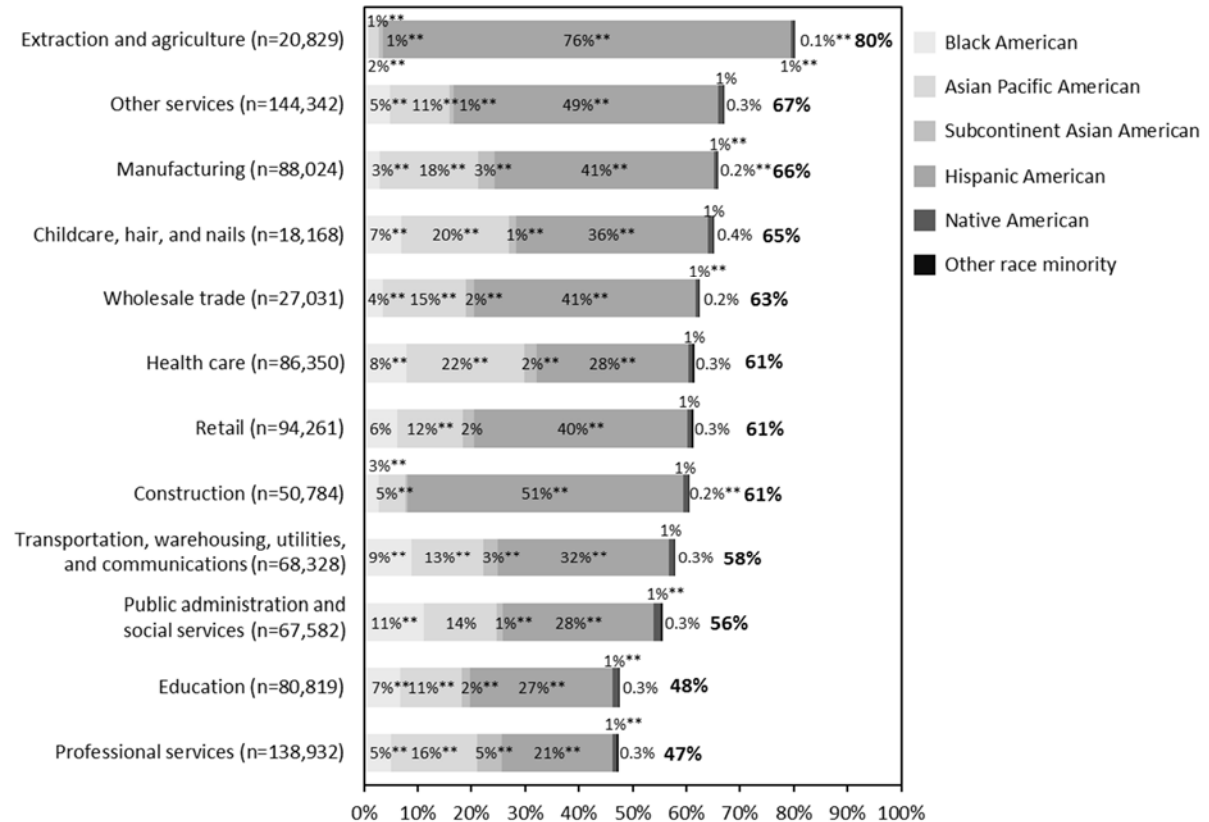
Employment and management experience. An important precursor to business ownership and success is acquiring direct work and management experience in relevant industries. Any barriers that limit minorities and women from acquiring that experience could prevent them from starting and operating related businesses in the future.

Employment. On a national level, prior industry experience has been shown to be an important indicator for business ownership and success. However, minorities and women are often unable to acquire relevant work experience. Minorities and women are sometimes discriminated against in hiring decisions, which impedes their entry into the labor market.^{37, 38, 39} When employed, minorities and women are often relegated to peripheral positions in the labor market and to industries that exhibit already high concentrations of minorities or women.^{40, 41, 42, 43} In addition, minorities are incarcerated at higher rates than non-Hispanic whites in California and nationwide, which contributes to various employment difficulties, including difficulties finding jobs and slow wage growth.^{44, 45, 46, 47}

The study team’s analyses of the labor force in California are largely consistent with those findings. Figures 2-2 and 2-3 present the representations of minority and women workers in

various California industries. As shown in Figure 2-2, the California industries with the highest representations of minority workers are extraction and agriculture, and agriculture, other services, and manufacturing. The California industries with the lowest representations of minority workers are public administration and social services, education, and professional services.

Figure 2-2.
Percent representation of minorities in various California industries, 2012-2016



Note: ** Denotes that the difference in proportions between minority workers in the specified industry and all industries is statistically significant at the 95% confidence level.

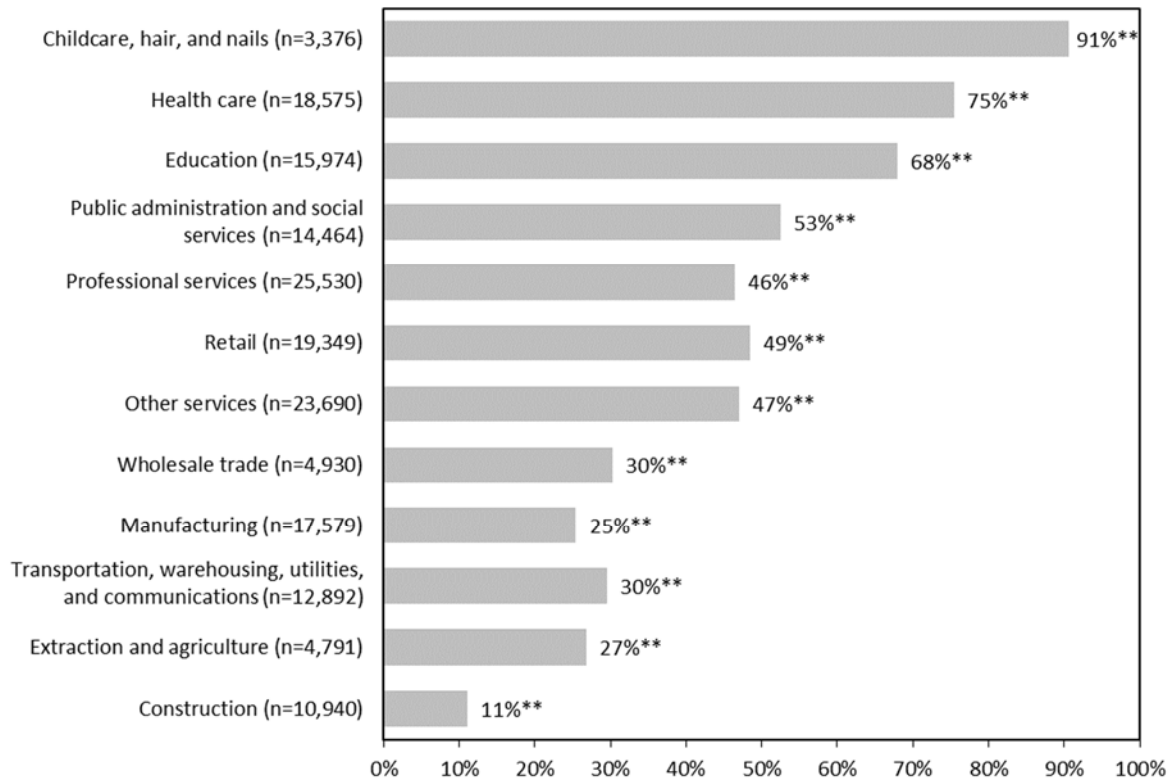
The representation of minorities among all California workers is 6% for Black Americans, 14% for Asian Pacific American, 2% for Subcontinent Asian American, 37% for Hispanic Americans, 1% for Native American, and 60% for all minorities considered together.

Workers in the finance, insurance, real estate, legal services, accounting, advertising, architecture, management, scientific research, and veterinary services industries were combined to one category of professional services; Workers in the rental and leasing, travel, investigation, waste remediation, arts, entertainment, recreation, accommodations, food services, and select other services were combined into one category of other services; Workers in child day care services, barber shops, beauty salons, nail salons, and other personal were combined into one category of childcare, hair, and nails.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figures 2-3 indicates that the California industries with the highest representations of women workers are childcare, hair, and nails; healthcare; and education. The California industries with the lowest representations of women workers are transportation, warehousing, utilities, and communications; extraction and agriculture; and construction.

Figure 2-3.
Percent representation of women in various California industries, 2012-2016



Note: ** Denotes that the difference in proportions between women workers in the specified industry and all industries is statistically significant at the 95% confidence level.

The representation of women among all California workers is 46%.

Workers in the finance, insurance, real estate, legal services, accounting, advertising, architecture, management, scientific research, and veterinary services industries were combined to one category of professional services; Workers in the rental and leasing, travel, investigation, waste remediation, arts, entertainment, recreation, accommodations, food services, and select other services were combined into one category of other services; Workers in child day care services, barber shops, beauty salons, nail salons, and other personal were combined into one category of childcare, hair, and nails.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Management experience. Managerial experience is an essential predictor of business success. However, race- and gender-based discrimination remains a persistent obstacle to greater diversity in management positions.^{48, 49, 50} Nationally, minorities and women are far less likely than non-Hispanic white men to work in management positions.^{51, 52} Similar outcomes appear to exist for minorities and women in California. The study team examined the concentration of minorities and women in management positions in the California construction and professional services industries. As shown in Figure 2-4:

- Compared to non-Hispanic whites, smaller percentages of Black Americans, Asian Pacific Americans, and Hispanic Americans work as managers in the California construction industry.
- Compared to non-Hispanic whites, smaller percentages of Asian Pacific Americans and Hispanic Americans work as managers in the California professional services industry. In addition, a smaller percentage of women than men work as managers in the California professional services industry.

Figure 2-4.
Percentage of workers who worked as a manager in each study-related industry, California and the United States, 2012-2016

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

California	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	5.4 % **	4.5 %	1.3 %
Asian Pacific American	10.6 % **	2.1 % **	1.8 %
Subcontinent Asian American	15.9 %	4.1 %	1.2 %
Hispanic American	2.7 % **	2.6 % **	1.2 %
Native American	11.1 %	4.3 %	13.4 %
Other race minority	11.0 %	3.1 %	0.0 %
Non-Hispanic white	13.7 %	4.4 %	1.9 %
Gender			
Women	7.6 %	2.0 % **	1.3 %
Men	7.7 %	4.4 %	1.7 %
All individuals	7.7 %	3.7 %	1.6 %

Intergenerational business experience. Having a family member who owns a business and is working in that business is an important predictor of business ownership and business success. Such experiences help entrepreneurs gain access to important opportunity networks, obtain knowledge of best practices and business etiquette, and receive hands-on experience in helping to run businesses. However, at least nationally, minorities have substantially fewer family members who own businesses, and both minorities and women have fewer opportunities to be involved with those businesses. That lack of experience makes it more difficult for minorities and women to subsequently start their own businesses and operate them successfully.

B. Financial Capital

In addition to human capital, financial capital has been shown to be an important indicator of business formation and success.⁵³ Individuals can acquire financial capital through a variety of sources, including employment wages, personal wealth, homeownership, and financing. If race- or gender-based discrimination exists in those markets, minorities and women may have difficulty acquiring the capital necessary to start, operate, or expand businesses.

Wages and income. Wage and income gaps between minorities and non-Hispanic whites and between women and men are well-documented throughout the country, even when researchers have statistically controlled for various factors ostensibly unrelated to race and gender.^{54, 55, 56} For example, national income data indicate that, on average, Black Americans and Hispanic Americans have household incomes that are less than two-thirds those of non-Hispanic whites.^{57, 58} Women have also faced consistent wage and income gaps relative to men. Nationally, the median hourly wage of women is still only 84 percent of the median hourly wage of men.⁵⁹ Such disparities make it difficult for minorities and women to use employment wages as a source of business capital.

The study team observed wage gaps in California that are consistent with those that researchers have observed nationally. Figure 2-5 presents mean annual wages for California workers by race/ethnicity and gender. As shown in Figure 2-5, Black Americans, Asian Pacific Americans, Hispanic Americans, Native Americans, and other race minorities in California earn substantially

less than non-Hispanic whites. In addition, women workers earn substantially less in wages than men. The study team also conducted regression analyses to determine whether those wage disparities exist even after statistically controlling for various race- and gender-neutral factors such as age, education, and family status. The results of those analyses indicated that being Black American, Asian Pacific American, Hispanic American, Native American, or other race minority was associated with substantially lower earnings than being non-Hispanic white, even after accounting for various race- and gender-neutral factors. Similarly, being a woman was associated with lower earnings than being a man (for details, see Figure C-9 in Appendix C).

Figure 2-5.
Mean annual wages among California workers, 2012-2016

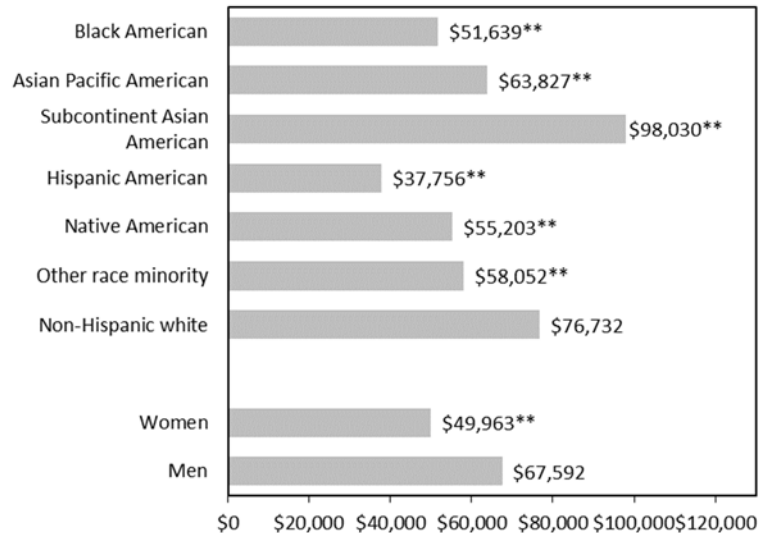
Note:

The sample universe is all non-institutionalized, employed individuals aged 25-64 that are not in school, the military, or self-employed.

** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.



Personal wealth. Another important potential source of business capital is personal wealth. As with wages and income, there are substantial disparities between minorities and non-Hispanic whites and between women and men in terms of personal wealth.^{60, 61} For example, in 2010, Black Americans and Hispanic Americans nationwide exhibited average household net worth that was 5 percent and 1 percent, respectively, that of non-Hispanic whites. In California and nationwide, more than one-fifth of Black Americans and Hispanic Americans are living in poverty, approximately double the rate of non-Hispanic whites.⁶² Wealth inequalities also exist for women relative to men. For example, the median wealth of non-married women nationally is approximately one-third that of non-married men.⁶³

Homeownership. Homeownership and home equity have been shown to be key sources of business capital.^{64, 65} However, minorities appear to face substantial barriers nationwide in owning homes. For example, Black Americans and Hispanic Americans own homes at less than two-thirds the rate of non-Hispanic whites.⁶⁶ Discrimination is at least partly to blame for those disparities. Research indicates that minorities continue to be given less information on prospective homes and have their purchase offers rejected because of their race.^{67, 68} Minorities who own homes tend to own homes that are worth substantially less than those of non-Hispanic whites and also tend to accrue substantially less equity.^{69, 70} Differences in home values and equity between minorities and non-Hispanic whites can be attributed—at least, in part—to the depressed property values that tend to exist in racially-segregated neighborhoods.^{71, 72}

Minorities appear to face homeownership barriers in California that are similar to those observed at the national level. The study team examined homeownership rates in California for relevant racial/ethnic groups. As shown in Figure 2-6, all relevant minority groups in California exhibit homeownership rates that are significantly lower than that of non-Hispanic whites.

Figure 2-6.
Home ownership rates in California, 2012-2016

Note:
The sample universe is all households.
** Denotes statistically significant differences from non-Hispanic whites at the 95% confidence level.

Source:
BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center:
<http://usa.ipums.org/usa/>.

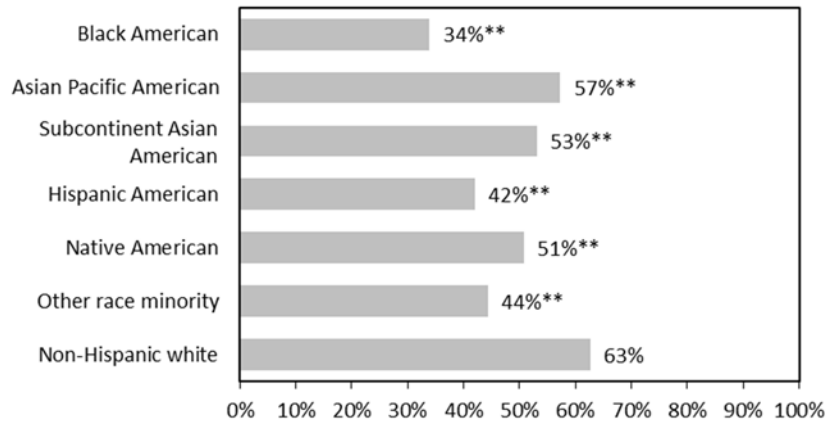
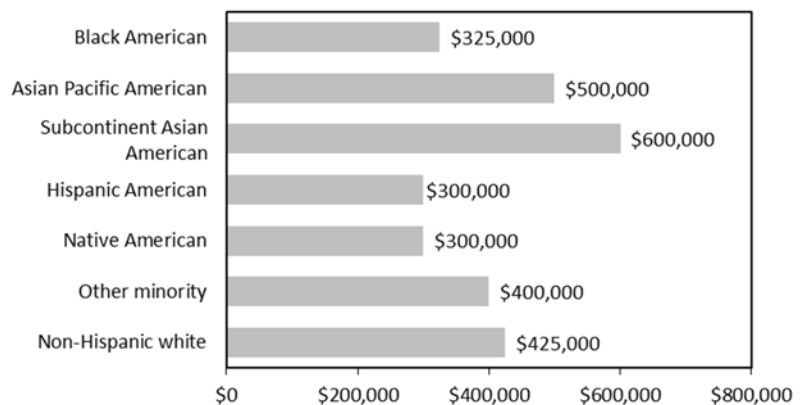


Figure 2-7 presents median home values among homeowners of different racial/ethnic groups in California. Consistent with national trends, homeowners of certain minority groups—Black Americans, Hispanic Americans, and Native Americans—own homes that, on average, are worth substantially less than those of non-Hispanic whites.

Figure 2-7.
Median home values in California, 2012-2016

Note:
The sample universe is all owner-occupied housing units.

Source:
BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center:
<http://usa.ipums.org/usa/>.



Access to financing. Minorities and women face many barriers in trying to access credit and financing, both for home purchases and for business capital. Researchers have often attributed those barriers to various forms of race- and gender-based discrimination that exist in credit markets.^{73, 74, 75, 76, 77, 78} The study team summarizes results related to difficulties that minorities; women; and minority- and woman-owned businesses face in the home credit and business credit markets.

Home credit. Minorities and women continue to face barriers when trying to access credit to purchase homes. Examples of such barriers include discriminatory treatment of minorities and women during the pre-application phase and disproportionate targeting of minority and women borrowers for subprime home loans.^{79, 80, 81, 82, 83} Race- and gender-based barriers in home credit

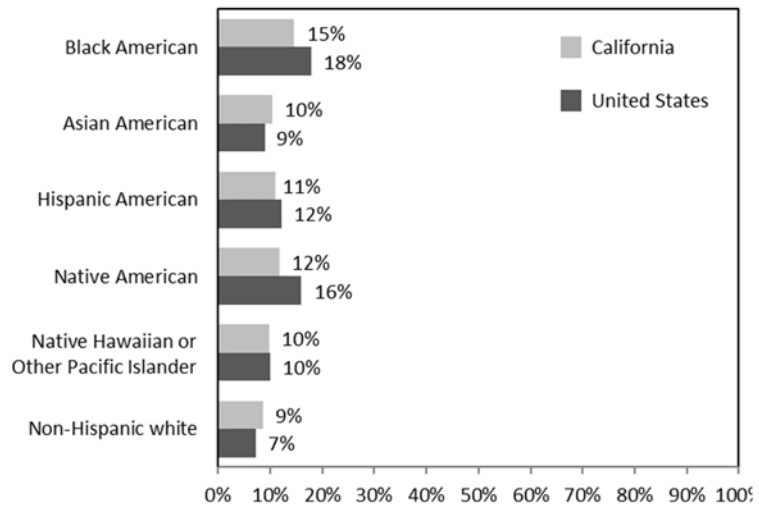
markets, as well as the recent foreclosure crisis, have led to decreases in homeownership among minorities and women and have eroded their levels of personal wealth.^{84, 85, 86, 87}

To examine how minorities fare in the home credit market relative to non-Hispanic whites, the study team analyzed home loan denial rates for high-income households by race/ethnicity. The study team analyzed those data for California and the United States as a whole. As shown in Figure 2-8, Black Americans, Hispanic Americans, and Native Americans in California exhibited higher home loan denial rates than non-Hispanic whites. In addition, the study team’s analyses indicate that certain minority groups in California are more likely than non-Hispanic whites to receive subprime mortgages (for details, see Figure C-14 in Appendix C).

Figure 2-8.
Denial rates of conventional purchase loans for high-income households in California and the United States, 2016

Note:
High-income borrowers are those households with 120% or more of the HUD area median family income (MFI).

Source:
FFIEC HMDA data 2016. The raw data extract was obtained from the Consumer Financial Protection Bureau HMDA data tool:
<http://www.consumerfinance.gov/hmda/explore>.



Business credit. Minority- and woman-owned businesses face substantial difficulties accessing business credit. For example, researchers have shown that Black American- and Hispanic American-owned businesses are more likely to be denied business credit, even after accounting for various race- and gender-neutral factors.^{88, 89} In addition, women are less likely to apply for credit and more likely to receive smaller loans.^{90, 91} Without equal access to business capital, minority- and woman-owned businesses must rely more on personal finances for their businesses, which leaves them at a disadvantage when trying to start and operate successful businesses.^{92, 93, 94, 95}

C. Business Ownership

Nationally, there has been substantial growth in the number of minority- and woman-owned businesses over the past 40 years. For example, from 1975 to 1990, the number of woman-owned businesses increased by 145 percent and the number of Hispanic American-owned businesses increased by nearly 200 percent.⁹⁶ Despite the progress that minorities and women have made with regard to business ownership, important barriers in starting and operating businesses remain. Black Americans, Hispanic Americans, and women are still less likely to start businesses than non-Hispanic white men.^{97, 98, 99} In addition, although rates of business ownership have increased among minorities and women, they have been unable to penetrate all industries evenly. Minorities and women disproportionately own businesses in industries that require less human and financial capital to be successful and that already include large concentrations of individuals from disadvantaged groups.^{100, 101}

The study team examined rates of business ownership in the California construction; professional services; and goods and services industries by race/ethnicity and gender. As shown in Figure 2-9:

- Black Americans, Hispanic Americans, and Native Americans exhibit lower rates of business ownership than non-Hispanic whites in the California construction industry. In addition, women exhibit lower rates of business ownership than men.
- Black Americans, Asian Pacific Americans, Subcontinent Asian Americans, Hispanic Americans, and other race minorities exhibit lower rates of business ownership than non-Hispanic whites in the California professional services industry. In addition, women exhibit lower rates of business ownership than men.
- Black Americans and Hispanic Americans exhibit lower rates of business ownership than non-Hispanic whites in the California goods and services industry.

Figure 2-9.
Rates of business ownership in study-related industries, California and the United States, 2012-2016

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

California	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	19.7 % **	9.6 % **	0.1 % **
Asian Pacific American	28.0 %	9.7 % **	8.4 %
Subcontinent Asian American	25.6 %	9.7 % **	3.6 %
Hispanic American	19.0 % **	9.9 % **	0.9 % **
Native American	25.2 % *	17.1 %	2.2 %
Other minority group	20.9 % **	12.0 %	0.0 %
Non-Hispanic white	29.7 %	20.2 %	4.0 %
Gender			
Women	13.1 % **	11.7 % **	2.2 %
Men	24.8 %	17.7 %	2.7 %
All individuals	23.8 %	16.1 %	2.5 %

The study team also conducted regression analyses to determine whether differences in business ownership rates between minorities and non-Hispanic whites and between women and men exist even after statistically controlling for various race- and gender-neutral factors such as income, education, and familial status. The study team conducted those analyses separately for each relevant industry. Figure 2-10 presents the race/ethnicity and gender factors that were significantly related to business ownership for each industry.

Figure 2-10.
Statistically significant relationships between race/ethnicity and gender and business ownership in relevant California industries, 2012-2016

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa>.

Industry and Group	Coefficient
Construction	
Black American	-0.2275
Hispanic American	-0.2262
Women	-0.5752
Professional Services	
Black American	-0.3881
Asian Pacific American	-0.3792
Subcontinent Asian American	-0.3603
Hispanic American	-0.1944
Women	-0.1980
Goods and Services	
Black American	-1.1572
Hispanic American	-0.9230

As shown in Figure 2-10, even after accounting for race- and gender-neutral factors:

- Being Black American or Hispanic American was associated with a lower rate of business ownership in construction. In addition, being a woman was associated with a lower rate of business ownership in construction.
- Being Black American, Asian Pacific American, Subcontinent Asian American, or Hispanic American was associated with a lower rate of business ownership in professional services. In addition, being a woman was associated with a lower rate of business ownership in professional services.
- Being Black American or Hispanic American was associated with a lower rate of business ownership in goods and services.

Disparities in business ownership rates between minorities and non-Hispanic whites and between women and men are not completely explained by differences in race- and gender-neutral factors such as income, education, and familial status. Disparities in business ownership rates exist for several groups in all relevant industries even after accounting for race- and gender-neutral factors.

D. Business Success

There is a great deal of research indicating that, nationally, minority- and woman-owned businesses fare worse than businesses owned by non-Hispanic white men. For example, Black Americans, Native Americans, Hispanic Americans, and women exhibit higher rates of moving from business ownership to unemployment than non-Hispanic whites and men. In addition, minority- and woman-owned businesses have been shown to be less successful than businesses owned by non-Hispanic whites and men using a number of different indicators such as profits, closure rates, and business size (but also see Robb and Watson 2012).^{102, 103, 104} The study team examined data on business closures, business receipts, and business owner earnings to further explore the success of minority- and woman-owned businesses in California.

Business closure. The study team examined the rates of closure among California businesses by the race/ethnicity and gender of owners. Figure 2-11 presents those results. As shown in Figure 2-11, Black American-, Asian American-, and Hispanic American-owned businesses in California appear to close at higher rates than non-Hispanic white-owned businesses. In addition, woman-owned businesses appear to close at higher rates than businesses owned by men. Increased rates of business closure among minority- and woman-owned businesses may have important effects on their availability for government contracts in California.

Figure 2-11.
Rates of business closure in California, 2002-2006

Note:

Data include only to non-publicly held businesses.

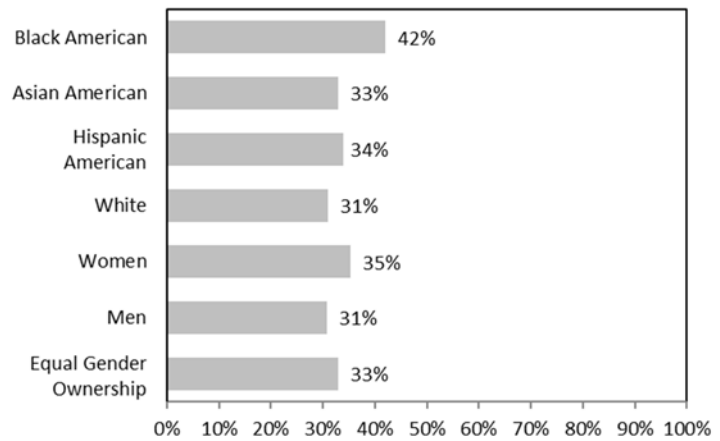
Equal Gender Ownership refers to those businesses for which ownership is split evenly between women and men.

Statistical significance of these results cannot be determined, because sample sizes were not reported.

Source:

Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." United States Small Business Administration Office of Advocacy. Washington D.C.

Lowrey, Ying. 2014. "Gender and Establishment Dynamics, 2002-2006." United States Small Business Administration Office of Advocacy. Washington D.C.



Business receipts. The study team also examined data on business receipts to assess whether minority- and woman-owned businesses in California earn as much as businesses owned by non-Hispanic whites or business owned by men, respectively. Figure 2-12 shows mean annual receipts for California businesses by the race/ethnicity and gender of owners. The data in Figure 2-12 indicate that in 2012, Black American-; Asian American-; Hispanic American-; American Indian and Alaskan Native-; and Native Hawaiian and Other Pacific Islander-owned businesses in California showed lower mean annual business receipts than businesses owned by non-Hispanic whites. In addition, woman-owned businesses in California showed lower mean annual business receipts than businesses owned by men.

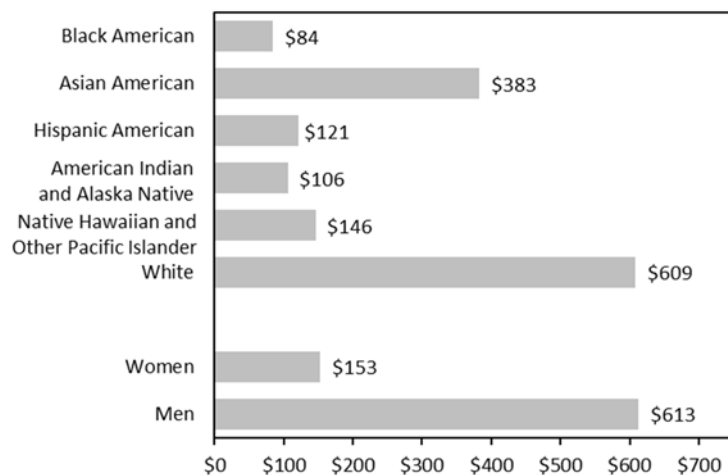
Figure 2-12.
Mean annual business receipts (in thousands) in California, 2012

Note:

Includes employer and non-employer firms. Does not include publicly-traded companies or other firms not classifiable by race/ethnicity and gender.

Source:

2012 Survey of Business Owners, part of the United States Census Bureau's 2012 Economic Census.



Business owner earnings. The study team analyzed business owner earnings to assess whether minorities and women in California earn as much from the businesses that they own as non-Hispanic whites and men do. As shown in Figure 2-13, Black Americans, Asian Pacific Americans, Hispanic Americans, Native Americans, and other race minorities in California earned less on average from their businesses than non-Hispanic whites. In addition, women in California earned less from their businesses than men. The study team also conducted regression analyses to determine whether earnings disparities in California exist even after statistically controlling for various race- and gender-neutral characteristics of business owners such as age, education, and familial status. The results of those analyses indicated that, compared to non-Hispanic white Americans in California, being Black American, Asian Pacific American, Hispanic American, or Native American was associated with significantly lower business earnings. In addition, being a woman was associated with substantially lower business owner earnings than being a man (for details, see Figure C-30 in Appendix C).

Figure 2-13.
Mean annual business owner earnings in California, 2012-2016

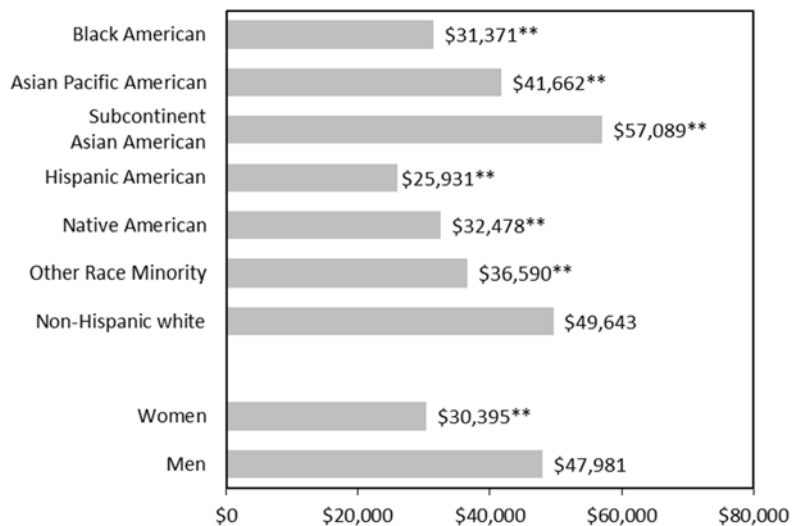
Note:

The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 2017 dollars.

** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.



E. Summary

The study team’s analyses of marketplace conditions indicate that minorities; women; and minority- and woman-owned businesses face substantial barriers nationwide and in California. Existing research, as well as analyses that the study team conducted, indicate that race- and gender-based disparities exist in terms of acquiring human capital, accruing financial capital, owning businesses, and operating successful businesses. In many cases, there is evidence that those disparities exist even after accounting for various race- and gender-neutral factors such as age, income, education, and familial status. There is also evidence that many disparities are due—at least, in part—to race- and gender-based discrimination.

Barriers in the marketplace likely have important effects on the ability of minorities and women to start and successfully operate businesses in the California industries relevant to the disparity study. Any difficulties that minorities and women face in starting and operating businesses may reduce their availability for government work and may also reduce the degree to which they are able to successfully compete for government contracts. In addition, the existence of barriers in the California marketplace indicates that government agencies in the state are passively participating in race- and gender-based discrimination that makes it more difficult for minority-

and woman-owned businesses to successfully compete for their contracts. Many courts have held that passive participation in any race- or gender-based discrimination establishes a compelling governmental interest for agencies to take remedial action to address such discrimination.

-
- ¹Haney-López, Ian. 2006. *White by Law: The Legal Construction of Race*. New York: NYU Press.
- ²Woodward, Comer Vann. 1955. *The Strange Career of Jim Crow*. Oxford: Oxford University Press.
- ³Prucha, Francis Paul. 1986. *The Great Father: The United States Government and the American Indians*. Lincoln: University of Nebraska Press.
- ⁴Lee, Erika. 2003. *At America's Gates: Chinese Immigration During the Exclusion Era, 1882-1943*. Chapel Hill, NC: University of North Carolina Press.
- ⁵Goldin, Claudia. 2006. "The Quiet Revolution That Transformed Women's Employment, Education, and Family." *The American Economic Review* 96(2):1-21.
- ⁶Lee, Erika. 2015. *The Making of Asian America: A History*. New York, NY: Simon & Schuster.
- ⁷Sides, Josh. 2003. *L.A. City Limits: African American Los Angeles from the Great Depression to the Present*. Los Angeles, CA: University of California Press.
- ⁸Wollenberg, Charles. 1978. *All Deliberate Speed. Segregation and Exclusion in California Schools, 1855-1975*. Los Angeles, CA: University of California Press.
- ⁹Lindsay, Brenda C. 2012. *Murder State: California's Native American Genocide, 1846-1873*. Lincoln, NE: University of Nebraska Press.
- ¹⁰Flores, Lori A. 2016. *Grounds for Dreaming: Mexican Americans, Mexican Immigrants, and the California Farm Worker Movement*. New Haven, CT: Yale University Press.
- ¹¹Dobbin, Frank. 2009. *Inventing Equal Opportunity*. Princeton: Princeton University Press.
- ¹²Holzer, Harry and David Neumark. 2000. "Assessing Affirmative Action." *Journal of Economic Literature* 38(3):483-568.
- ¹³Kalev, Alexandra, Frank Dobbin, and Erin Kelly. 2006. "Best Practices or Best Guesses? Assessing the Efficacy of Corporate Affirmative Action and Diversity Policies." *American Sociological Review* 71(4):589-617.
- ¹⁴Kao, Grace and Jennifer S. Thompson. 2003. "Racial and Ethnic Stratification in Educational Achievement and Attainment." *Annual Review of Sociology* 29(1):417-42.
- ¹⁵DiPrete, Thomas A. and Claudia Buchmann. 2013. *The Rise of Women: The Growing Gender Gap in Education and What It Means for American Schools*. New York: Russell Sage Foundation.
- ¹⁶Travis, Jeremy, Bruce Western, and Steve Redburn. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. National Research Council. Washington D.C.: Division of Behavioral and Social Sciences and Education. Retrieved January 6, 2015 (http://www.nap.edu/booksearch.php?booksearch=1&record_id=18613&term=Black&chapter=33-69).
- ¹⁷Charles, Camille Zubrinsky. 2003. "The Dynamics of Racial Residential Segregation." *Annual Review of Sociology* 29:167-207.
- ¹⁸Bianchi, Suzanne M., Liana C. Sayer, Melissa A. Milkie, and John P. Robinson. 2012. "Housework: Who Did, Does or Will Do It, and How Much Does It Matter?" *Social Forces* 91(1):55-63.
- ¹⁹*Adarand VII*, 228 F.3d at 1167-76; *see also Western States Paving*, 407 F.3d at 992 (Congress "explicitly relied upon" the Department of Justice study that "documented the discriminatory hurdles that minorities must overcome to secure federally funded contracts"); *Midwest Fence Corp. v. U.S. DOT, Illinois DOT, et al.*, 2015 WL 1396376, *appeal pending*.
- ²⁰*Adarand VII*, 228 F.3d. at 1168-70; *Western States Paving*, 407 F.3d at 992; *see DynaLantic*, 885 F.Supp.2d 237; *Midwest Fence Corp. v. U.S. DOT, Illinois DOT, et al.*, 2015 WL 1396376, *appeal pending*; *Geyer Signal*, 2014 WL 130909297 at *14.
- ²¹*Adarand VII* at 1170-72; *see DynaLantic*, 885 F.Supp.2d 237; *Geyer Signal*, 2014 WL 1309092 at *14.
- ²²*City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989).
- ²³*Concrete Works of Colo., Inc. v. City and County of Denver*, 36 F.3d 1513, 1524 (10th Cir. 1994).
- ²⁴*Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1041.
- ²⁵Fairlie, Robert W. and Alicia M. Robb. 2007. "Why Are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital." *Journal of Labor Economics* 25(2):289-323.
- ²⁶Fairlie, Robert W. and Alicia M. Robb. 2008. *Race and Entrepreneurial Success: Black-, Asian-, and White-Owned Businesses in the United States*. Cambridge, Mass.: MIT Press.
- ²⁷Fairlie, Robert W. and Alicia M. Robb. 2009. "Gender Differences in Business Performance: Evidence From the Characteristics of Business Owners Survey." *Small Business Economics* 33(4):375-95.

-
- ²⁸ Hout, Michael and Harvey Rosen. 2000. "Self-Employment, Family Background, and Race." *Journal of Human Resources* 35(4):670–92.
- ²⁹ Emmons, William R. and Bryan J. Noeth. 2015. *Why Didn't Higher Education Protect Hispanic and Black Wealth?* St. Louis, MO: Center for Household Financial Stability. Retrieved August 20, 2015 (https://www.stlouisfed.org/~media/Publications/In%20the%20Balance/Images/Issue_12/ITB_August_2015.pdf).
- ³⁰ Shapiro, Thomas, Tatjana Meschede, and Sam Osoro. 2013. *The Roots of the Widening Racial Wealth Gap: Explaining the Black-White Economic Divide*. Waltham, MA: Institute on Assets and Social Policy. Retrieved January 2, 2015 (<http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf>).
- ³¹ National Center for Education Statistics. 2010. *Status and Trends in the Education of Racial and Ethnic Minorities*. National Center for Education Statistics. Retrieved January 20, 2015 (<http://nces.ed.gov/pubs2010/2010015/tables.asp>).
- ³² Kao, Grace and Jennifer S. Thompson. 2003. "Racial and Ethnic Stratification in Educational Achievement and Attainment." *Annual Review of Sociology* 29(1):417–42.
- ³³ U.S. Department of Education Office for Civil Rights. 2014a. *College and Career Readiness*. Washington D.C.: U.S. Department of Education. Retrieved January 3, 2015 (<http://www2.ed.gov/about/offices/list/ocr/docs/crdc-college-and-career-readiness-snapshot.pdf>).
- ³⁴ U.S. Department of Education Office for Civil Rights. 2014b. *School Discipline, Restraint, and Seclusion Highlights*. Washington D.C.: U.S. Department of Education. Retrieved January 3, 2015 (<http://ocrdata.ed.gov/Downloads/CRDC-School-Discipline-Snapshot.pdf>).
- ³⁵ Bozkick, Robert and Erich Lauff. 2007. Education Longitudinal Study of 2002 (ELS:2002): *A First Look at the Initial Postsecondary Experiences of the High School Sophomore Class of 2002*. National Center for Education Statistics. Retrieved January 20, 2015 (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008308>).
- ³⁶ Stillwell, Robert and Jennifer Sable. 2013. *Public School Graduates and Dropouts from the Common Core of Data: School Year 2009–10*. National Center for Education Statistics. Retrieved October 11, 2015 (<http://nces.ed.gov/pubs2013/2013309rev.pdf>).
- ³⁷ Correll, Shelley J., Stephen Benard, and In Paik. 2007. "Getting a Job: Is There a Motherhood Penalty?" *American Journal of Sociology* 112(5):1297–1339.
- ³⁸ Pager, Devah, Bruce Western, and Bart Bonikowski. 2009. "Discrimination in a Low-Wage Labor Market A Field Experiment." *American Sociological Review* 74(5):777–99.
- ³⁹ Bertrand, Marianne and Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review* 94(4):991–1013.
- ⁴⁰ Beck, E. M., Patrick M. Horan, and Charles M. Tolbert II. 1980. "Industrial Segmentation and Labor Market Discrimination." *Social Problems* 28(2):113–30.
- ⁴¹ Catanzarite, Lisa. 2003. "Race-Gender Composition and Occupational Pay Degradation." *Social Problems* 50(1):14–37.
- ⁴² Cohen, Philip N. and Matt L. Huffman. 2003. "Occupational Segregation and the Devaluation of Women's Work across U.S. Labor Markets." *Social Forces* 81(3):881–908.
- ⁴³ Huffman, Matt L. and Philip N. Cohen. 2004. "Racial Wage Inequality: Job Segregation and Devaluation across U.S. Labor Markets." *American Journal of Sociology* 109(4):902–36.
- ⁴⁴ Travis, Jeremy, Bruce Western, and Steve Redburn. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. National Research Council. Washington D.C.: Division of Behavioral and Social Sciences and Education. Retrieved January 6, 2015 (http://www.nap.edu/booksearch.php?booksearch=1&record_id=18613&term=Black&chapter=33-69).
- ⁴⁵ Grattet, Ryan and Joseph Hayes. 2015. "California's Changing Prison Population." San Francisco, CA: Public Policy Institute of California. Retrieved May 1, 2016 (http://www.ppic.org/main/publication_show.asp?i=702).
- ⁴⁶ Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5):937–75.
- ⁴⁷ Western, Bruce and Becky Pettit. 2010. "Incarceration & Social Inequality." *Daedalus* 139(3):8–19.
- ⁴⁸ Wilson, George and Debra Branch McBrier. 2005. "Race and Loss of Privilege: African American/White Differences in the Determinants of Job Layoffs From Upper-Tier Occupations." *Sociological Forum* 20(2):301–21.
- ⁴⁹ Roscigno, Vincent J., Lisette M. Garcia, and Donna Bobbitt-Zeher. 2007. "Social Closure and Processes of Race/Sex Employment Discrimination." *The Annals of the American Academy of Political and Social Science* 609 (1): 16-48.
- ⁵⁰ Roscigno, Vincent J. Lisa M. Williams, and Reginald A. Byron. 2012. "Workplace Racial Discrimination and Middle Class Vulnerability." *American Behavioral Scientist* 56(5):696-710.

-
- ⁵¹ Smith, Ryan A. 2002. "Race, Gender, and Authority in the Workplace: Theory and Research." *Annual Review of Sociology* 28:509–42.
- ⁵² Wilson, George. 1997. "Pathways to Power: Racial Differences in the Determinants of Job Authority." *Social Problems* 44(1):38–54.
- ⁵³ Robb, Alicia and Robert Fairlie. 2007. "Access to Financial Capital among U.S. Businesses: The Case of African American Firms." *The Annals of the American Academy of Political and Social Science* 613(1):47–72.
- ⁵⁴ Cha, Youngjoo and Kim A. Weeden. 2014. "Overwork and the Slow Convergence in the Gender Gap in Wages." *American Sociological Review* 79(3):457–84.
- ⁵⁵ McCall, Leslie. 2001. "Sources of Racial Wage Inequality in Metropolitan Labor Markets: Racial, Ethnic, and Gender Differences." *American Sociological Review* 66(4):520–41.
- ⁵⁶ Tomaskovic-Devey, Donald. 1993b. "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps." *Social Forces* 72(1):45–76.
- ⁵⁷ Economic Policy Institute. 2012a. *African Americans*. Washington D.C.: Economic Policy Institute. Retrieved January 20, 2015 (<http://stateofworkingamerica.org/files/book/factsheets/african-americans.pdf>).
- ⁵⁸ Economic Policy Institute. 2012b. *Latinos*. Washington D.C.: Economic Policy Institute. Retrieved January 20, 2015 (<http://www.stateofworkingamerica.org/fact-sheets/latinos/>).
- ⁵⁹ Economic Policy Institute. 2012c. *Women*. Washington D.C.: Economic Policy Institute. Retrieved January 20, 2015 (<http://www.stateofworkingamerica.org/fact-sheets/women/>).
- ⁶⁰ Shapiro, Thomas, Tatjana Meschede, and Sam Osoro. 2013. *The Roots of the Widening Racial Wealth Gap: Explaining the Black-White Economic Divide*. Waltham, MA: Institute on Assets and Social Policy. Retrieved January 2, 2015 (<http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf>).
- ⁶¹ Sullivan, Laura, Tatjana Meschede, Lars Dietrich, Thomas Shapiro, Amy Traub, Catherine Ruetschlin, and Tamara Draut. 2015. *The Racial Wealth Gap: Why Policy Matters*. New York: Demos. Retrieved August 28, 2015 (http://www.demos.org/sites/default/files/publications/RacialWealthGap_1.pdf).
- ⁶² Kaiser Health Foundation. 2015. "Poverty by Race/Ethnicity." Retrieved May 10, 2016 (<http://kff.org/other/state-indicator/poverty-rate-by-raceethnicity/>).
- ⁶³ Chang, Mariko Lin. 2010. *Shortchanged: Why Women Have Less Wealth and What Can Be Done About It*. Oxford: Oxford University Press.
- ⁶⁴ Berger, Allen N. and Gregory F. Udell. 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking & Finance* 22(6–8):613–73.
- ⁶⁵ Fairlie, Robert W. and Harry A. Krashinsky. 2012. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited." *Review of Income & Wealth* 58(2):279–306.
- ⁶⁶ U. S. Census Bureau. 2013a. "American Community Survey 2013 1 Year Estimates." Retrieved January 20, 2015 (<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>).
- ⁶⁷ Turner, Margery Austen, Rob Santos, and Diane K. Levy, Doug Wissoker, Claudia Aranda, and Rob Pitingolo. 2013. *Housing Discrimination Against Racial and Ethnic Minorities 2012*. Washington, D.C.: U.S. Department of Housing and Urban Development. Retrieved January 2, 2015 (http://www.huduser.org/portal/publications/fairhsg/hsg_discrimination_2012.html).
- ⁶⁸ Roscigno, Vincent J., Diana L. Karafin, and Griff Tester. 2009. "The Complexities and Processes of Racial Housing Discrimination." *Social Problems* 56(1): 49-69.
- ⁶⁹ Kochhar, Rakesh and Richard Fry. 2014. "Wealth Inequality Has Widened along Racial, Ethnic Lines since End of Great Recession." *Pew Research Center*. Retrieved December 29, 2014 (<http://www.pewresearch.org/fact-tank/2014/12/12/racial-wealth-gaps-great-recession/>).
- ⁷⁰ Burd-Sharps, Sarah and Rebecca Rasch. 2015. *Impact of the US Housing Crisis on the Racial Wealth Gap Across Generations*. Brooklyn, NY: Social Science Research Council. Retrieved June 23, 2015 (<http://www.ssrc.org/publications/view/129CDF74-1F11-E511-940A-005056AB4B80/>).
- ⁷¹ Charles, Camille Zubrinsky. 2003. "The Dynamics of Racial Residential Segregation." *Annual Review of Sociology* 29:167–207.
- ⁷² Shapiro, Thomas, Tatjana Meschede, and Sam Osoro. 2013. *The Roots of the Widening Racial Wealth Gap: Explaining the Black-White Economic Divide*. Waltham, MA: Institute on Assets and Social Policy. Retrieved January 2, 2015 (<http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf>).
- ⁷³ Blanchard, Lloyd, Bo Zhao, and John Yinger. 2008. "Do Lenders Discriminate Against Minority and Woman Entrepreneurs?" *Journal of Urban Economics* 63(2):467–97.

-
- ⁷⁴ Cavalluzzo, Ken S., Linda C. Cavalluzzo, and John D. Wolken. 2002. "Competition, Small Business Financing, and Discrimination: Evidence from a New Survey." *The Journal of Business* 75(4):641–79.
- ⁷⁵ Cavalluzzo, Ken and John Wolken. 2005. "Small Business Loan Turndowns, Personal Wealth, and Discrimination." *The Journal of Business* 78(6):2153–78.
- ⁷⁶ Gruenstein Bocian, Debbie, Wei Li, Carolina Reid, and Robert G. Quercia. 2011. *Lost Ground, 2011: Disparities in Mortgage Lending and Foreclosures*. Washington D.C.: Center for Responsible Lending. Retrieved January 21, 2015.
- ⁷⁷ Mijid, Naranchimeg and Alexandra Bernasek. 2013. "Gender and the Credit Rationing of Small Businesses." *The Social Science Journal* 50(1):55–65.
- ⁷⁸ Ross, Stephen L. and John Yinger. 2002. *The Color of Credit: Mortgage Discrimination, Research Methodology, and Fair-Lending Enforcement*. Cambridge, MA: MIT Press.
- ⁷⁹ Ross, Stephen L., Margery Austin Turner, Erin Godfrey, and Robin R. Smith. 2008. "Mortgage Lending in Chicago and Los Angeles: A Paired Testing Study of the Pre-Application Process." *Journal of Urban Economics* 63(3):902–19.
- ⁸⁰ Dymski, Gary, Jesus Hernandez, and Lisa Mohanty. 2013. "Race, Gender, Power, and the US Subprime Mortgage and Foreclosure Crisis: A Meso Analysis." *Feminist Economics* 19(3):124–51.
- ⁸¹ Fishbein, Allen J. and Patrick Woodall. 2006. *Women are Prime Targets Subprime: Women Are Disproportionately Represented in High-Cost Mortgage Market*. Washington D.C.: Consumer Federation of America. Retrieved January 5, 2015 (http://policylinkcontent.s3.amazonaws.com/WomenPrimeTargetsSubprimeLending_CFA_0.pdf).
- ⁸² Williams, Richard, Reynold Nesiba, and Eileen Diaz McConnell. 2005. "The Changing Face of Inequality in Home Mortgage Lending." *Social Problems* 52(2):181–208.
- ⁸³ Wyly, Elvin and C. S. Ponder. 2011. "Gender, Age, and Race in Subprime America." *Housing Policy Debate* 21(4):529–64.
- ⁸⁴ Baker, Amy Castro. 2011. *Tearing Down the Wealth of Women*. New York: Women's Media Center. Retrieved January 5, 2015 (<http://www.womensmediacenter.com/feature/entry/tearing-down-the-wealth-of-women>).
- ⁸⁵ Baker, Amy Castro. 2014. "Eroding the Wealth of Women: Gender and the Subprime Foreclosure Crisis." *Social Service Review* 88(1):59–91.
- ⁸⁶ Rugh, Jacob S. and Douglas S. Massey. 2010. "Racial Segregation and the American Foreclosure Crisis." *American Sociological Review* 75(5):629–51.
- ⁸⁷ Burd-Sharps, Sarah and Rebecca Rasch. 2015. *Impact of the US Housing Crisis on the Racial Wealth Gap Across Generations*. Brooklyn, NY: Social Science Research Council. Retrieved June 23, 2015 (<http://www.ssrc.org/publications/view/129CDF74-1F11-E511-940A-005056AB4B80/>).
- ⁸⁸ Blanchard, Lloyd, Bo Zhao, and John Yinger. 2008. "Do Lenders Discriminate Against Minority and Woman Entrepreneurs?" *Journal of Urban Economics* 63(2):467–97.
- ⁸⁹ Blanchflower, David G., Phillip B. Levine, and David J. Zimmerman. 2003. "Discrimination in the Small Business Credit Market." *The Review of Economics and Statistics* 85(4):930–43.
- ⁹⁰ Mijid, Naranchimeg and Alexandra Bernasek. 2013. "Gender and the Credit Rationing of Small Businesses." *The Social Science Journal* 50(1):55–65.
- ⁹¹ Treichel, Monica Zimmerman and Jonathan A. Scott. 2006. "Women-Owned Businesses and Access to Bank Credit: Evidence from Three Surveys Since 1987." *Venture Capital* 8(1):51–67.
- ⁹² Coleman, Susan and Alicia Robb. 2009. "A Comparison of New Firm Financing by Gender: Evidence from the Kauffman Firm Survey Data." *Small Business Economics* 33(4):397–411.
- ⁹³ Robb, Alicia and Robert Fairlie. 2007. "Access to Financial Capital among U.S. Businesses: The Case of African American Firms." *The Annals of the American Academy of Political and Social Science* 613(1):47–72.
- ⁹⁴ Robb, Alicia M., Robert W. Fairlie, and David T. Robinson. 2009. *Patterns of Financing: A Comparison between White- and African-American Young Firms*. Kansas City, MO: Ewing Marion Kauffman Foundation. Retrieved January 21, 2015 (<http://www.kauffman.org/what-we-do/research/kauffman-firm-survey-series/patterns-of-financing-a-comparison-between-white-and-africanamerican-young-firms>).
- ⁹⁵ Fairlie, Robert W. and Harry A. Krashinsky. 2012. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited." *Review of Income & Wealth* 58(2):279–306.
- ⁹⁶ Blanchflower, David G. 2008. *Minority Self-Employment in the United States and the Impact of Affirmative Action Programs*. Cambridge, MA: National Bureau of Economic Research. Retrieved January 15, 2015 (<http://www.nber.org/papers/w13972>).
- ⁹⁷ Fairlie, Robert W. and Alicia M. Robb. 2009b. "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey." *Small Business Economics* 33(4):375–95.

⁹⁸ Fairlie, Robert W. 2006. "Entrepreneurship among Disadvantaged Groups: Women, Minorities, and the Less Educated." Pp. 437–75 in *The Life Cycle of Entrepreneurial Ventures*, edited by Simon Parker. Springer Science & Business Media.

⁹⁹ Fairlie, Robert W. and Alicia M. Robb. 2008. *Race and Entrepreneurial Success: Black-, Asian-, and White-Owned Businesses in the United States*. Cambridge, Mass.: MIT Press.

¹⁰⁰ Budig, Michelle J. 2006b. "Intersections on the Road to Self-Employment: Gender, Family and Occupational Class." *Social Forces* 84(4):2223–39.

¹⁰¹ Lofstrom, Magnus and Timothy Bates. 2013. "African Americans' Pursuit of Self-Employment." *Small Business Economics* 40(1):73–86.

¹⁰² Fairlie, Robert W. and Alicia M. Robb. 2008. *Race and Entrepreneurial Success: Black-, Asian-, and White-Owned Businesses in the United States*. Cambridge, Mass.: MIT Press.

¹⁰³ Coleman, Susan and Alicia Robb. 2009. "A Comparison of New Firm Financing by Gender: Evidence from the Kauffman Firm Survey Data." *Small Business Economics* 33(4):397–411.

¹⁰⁴ Robb, Alicia M. and John Watson. 2012. "Gender Differences in Firm Performance: Evidence from New Ventures in the United States." *Journal of Business Venturing* 27(5):544–58.

CHAPTER 3.

Data Collection and Analysis

CHAPTER 3.

Data Collection and Analysis

Chapter 3 provides an overview of the California Department of Transportation’s (Caltrans’s) Division of Rail and Mass Transportation (DRMT), Division of Transportation Planning (DOTP), and subrecipient local agency contracts that the study team analyzed as part of the disparity study and describes the process that the study team used to collect prime contract and subcontract data. Chapter 3 is organized into five parts:

- A. Overview of transit-related contracts;
- B. Collection and analysis of contract data;
- C. Collection of vendor data;
- D. Relevant geographic market area; and
- E. Types of work involved in DRMT, DOTP, and subrecipient contracts.

A. Overview of Transit-related Contracts

DRMT and DOTP are responsible for administering state and federal grant programs that provide funding for operating assistance, capital improvement projects, and transportation planning. Most of Caltrans’s transit-related and Federal Transit Administration (FTA)-funded projects are awarded through subrecipient local agencies that either perform the work in-house or contract with third-party vendors to perform the work. In addition, Caltrans DRMT awards a small number of contracts directly to contractors, consultants, or suppliers.

Subrecipient local agencies. All subrecipients of Caltrans’s FTA funds must comply with federal procurement standards set forth in 2 Code of Federal Regulations (CFR) Part 1201.¹ Subrecipients sign a Standard Agreement with Caltrans that identifies FTA requirements for procurement and certifies their compliance with those requirements. Those requirements extend to subrecipients’ agreements with third-party vendors, if applicable. Caltrans reviews and approves those agreements to ensure compliance.²

DRMT. DRMT manages the delivery of funds to subrecipient local agencies for the following FTA funding programs:

- Section 5310 – Elderly and Disabled Program;
- Section 5311 – Rural Transit Assistance Program;
- Section 5311 (f) – Intercity Bus Program;

¹ <https://www.ecfr.gov/cgi-bin/text-idx?SID=7bb1b970d53b4236e5132c967213c58f&mc=true&node=pt2.1.1201&rgn=div5>

² <http://www.dot.ca.gov/hq/MassTrans/Docs-Pdfs/SMR/finalsmp2013.pdf>

- Congestion Mitigation and Air Quality (CMAQ); and
- Section 5339 – Bus and Bus Related Equipment Program.

The 5310 and 5339 programs are discretionary funding programs. Caltrans awards funds for those programs to grant applicants throughout California. Both 5311 programs are non-discretionary funding programs. Caltrans allocates the 5311 funding to non-urbanized areas throughout California according to Census population data. CMAQ funds are directed to activities that help communities maintain or attain National Ambient Air Quality Standards. Through the 5310, 5311, 5339, and CMAQ programs, DRMT oversees funding to more than 150 cities, counties, and regional agencies for the purpose of improving mass transportation infrastructure and providing transportation services.

DOTP. DOTP manages the delivery of funds to subrecipient local agencies for the Section 5303 – Metropolitan Planning Program and the Section 5304 – Statewide Planning Program. The 5303 program is a non-discretionary funding program. Caltrans allocates 5303 funding to metropolitan planning organizations (MPOs) throughout California by a formula that considers an MPO’s urbanized population and its planning needs. The 5304 program is a discretionary funding program. Caltrans awards those program funds to grant applicants throughout the state. Through the 5303 and 5304 programs, DOTP oversees funding to 18 MPOs and 26 regional transportation planning agencies for the purpose of improving transportation planning efforts.

B. Collection and Analysis of Contract Data

The study team worked with Caltrans to collect data on transit-related contracts and subcontracts that the agency or subrecipient local agencies awarded during the study period between October 1, 2014 and September 30, 2017 (i.e., federal fiscal years 2015 through 2017). Caltrans and subrecipient local agencies used Disadvantaged Business Enterprise (DBE) contract goals to award a small number of FTA-funded contracts during the study period.

Data sources. BBC relied on several sources of information to compile data on Caltrans’s and subrecipient local agencies’ prime contracts and subcontracts:

- Caltrans provided hardcopy documents related to prime contracts and associated subcontracts that the agency directly awarded during the study period.
- DRMT provided electronic data on contracts that subrecipient local agencies awarded through the 5310, 5311, 5339, and CMAQ programs during the study period.
- DOTP provided electronic data on contracts that subrecipient local agencies awarded through the 5303 and 5304 funding programs during the study period.

To augment data that BBC received from Caltrans, DRMT, and DOTP, the study team conducted surveys with subrecipient local agencies to collect additional information about the prime contractors and subcontractors that performed work on contracts they awarded FTA funds.

Contracts included in the study. BBC identified 231 relevant transit-related professional services and goods and services prime contracts and 123 associated subcontracts that Caltrans or subrecipient local agencies awarded during the study period. As shown in Figure 3-1, the 354

contract elements that the study team identified and includes in its analyses accounted for approximately \$1.1 billion of Caltrans and subrecipient local agency spend during the study period. During the study period, Caltrans directly awarded and managed five of those contracts. Subrecipient local agencies awarded and managed the remaining 349 prime contracts and subcontracts that BBC included in the study.

Figure 3-1.
Number of Caltrans and subrecipient local agency contracts included in the study

Note:
 Numbers rounded to nearest dollar and thus may not sum exactly to totals.

Source:
 BBC Research & Consulting from Caltrans and subrecipient local agency contract data.

Contract Type	Number of Contract Elements	Dollars (in thousands)
Professional services	253	\$29,383
Good and services	101	\$1,094,560
Total	354	\$1,123,944

Contracts excluded from the study. Caltrans has agreements with many subrecipient local agencies that include passthrough funds but do not result in any contracts. Such agreements were not included in the study team’s analyses. In addition, BBC did not include contracts in its analyses that:

- Caltrans or subrecipient local agencies awarded to nonprofit organizations or to other government agencies;
- Were classified in industries that were not directly related to transit-related contracting (e.g., financial services);
- Were classified in subindustries for which Caltrans awarded the majority of contracting dollars to businesses located outside of California;³
- Were classified in industries related to United States Department of Transportation’s Transit Vehicle Manufacturing (TVM) Program; or
- Were classified in national market industries (i.e., industries in which only a small number of large, national businesses compete).⁴

Prime contract and subcontract amounts. For each contract, BBC examined dollars that Caltrans or subrecipient local agencies awarded to each prime contractor during the study period and the dollars that the prime contractor awarded to any subcontractors. If a contract did not include any subcontracts, the study team attributed the entire amount awarded during the study period to the prime contract. If a contract included subcontracts, the study team calculated subcontract amounts as the total amount awarded to each subcontractor. BBC then calculated the prime contract amount as the total amount awarded less the sum of dollars awarded to all subcontractors.

³ BBC included the participation of businesses that were located outside of California in its analyses but only for those subindustries for which Caltrans awarded the majority of contract dollars to businesses located within California.

⁴ All Section 5310 projects were classified in TVM-related industries or national market industries, or the projects were relatively small. Therefore, the study team did not include any Section 5310 contracts in its analyses.

C. Collection of Vendor Data

The study team collected information on businesses that participated in relevant Caltrans or subrecipient local agency professional services and goods and services contracts during the study period. BBC relied on a variety of sources for that information, including:

- Caltrans contract data;
- Subrecipient local agency contract data;
- The California Unified Certification Program (CUCP);
- Dun & Bradstreet (D&B) business listings and other business information sources;
- Business websites;
- Telephone surveys that the study team conducted with business owners and managers; and
- Caltrans staff review.

The study team compiled the following information about each business that participated in relevant Caltrans or subrecipient local agency contracts:

- Business location;
- Ownership status (i.e., whether each business was minority- or woman-owned);
- DBE certification status;
- Primary line of work;
- Year of establishment; and
- Business size (in terms of number of employees and revenue).

D. Relevant Geographic Market Area

The Federal DBE program requires agencies to implement the program based on information from the *relevant geographic market area*, which is the area in which the agency spends the substantial majority of its contracting dollars. The study team used Caltrans's contracting and vendor data to help determine the relevant geographic market area for the study.

- The study team summed the dollars that went to each prime contractor and subcontractor involved in the transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period.
- For each prime contractor and subcontractor, BBC determined whether the company had a business establishment in California.
- BBC then added the dollars for businesses with a location in California and compared the sum with the total transit-related dollars that Caltrans and subrecipient local agencies awarded during the study period.

The study team's analysis showed that 99 percent of Caltrans's and subrecipient local agencies' relevant contracting dollars went to businesses with locations in California, indicating that California should be considered the relevant geographic market area for the study. As a result,

BBC’s analyses—including the availability analysis and quantitative analyses of marketplace conditions—focused on the state of California.

E. Types of Work Involved in Caltrans Contracts

The study team determined the *subindustries* that were involved in relevant prime contracts and subcontracts that Caltrans awarded during the study period. The study team based those determinations on Caltrans’s and subrecipient local agencies’ contract data and information about each prime contractor’s and subcontractor’s primary lines of work. BBC developed subindustries based in part on 8-digit D&B industry classification codes. Figure 3-2 presents the dollars that the study team examined in various professional services and goods and services subindustries as part of its analyses.

Figure 3-2.
Caltrans contract dollars
by subindustry, FFY
2015-2017

Note:

Numbers rounded to nearest dollar and thus may not sum exactly to totals.

Source:

BBC Research & Consulting from Caltrans and subrecipient local agency contract data.

Industry	Total (in Thousands)
Professional Services	
Engineering	\$11,929
Environmental services and transportation planning	\$13,001
Other professional services	\$292
Business services and consulting	\$4,162
Total professional services	\$29,383
Goods and Services	
Transit services	\$1,093,846
Communications equipment	\$95
Other goods	\$234
Other services	\$192
Parking services	\$193
Total goods and services	\$1,094,560
GRAND TOTAL	\$1,123,944

CHAPTER 4.

Availability Analysis

CHAPTER 4.

Availability Analysis

BBC Research & Consulting (BBC) analyzed the availability of minority- and woman-owned businesses that are ready, willing, and able to perform on transit-related professional services and goods and services prime contracts and subcontracts that the California Department of Transportation (Caltrans) and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017 (i.e., federal fiscal years 2015 through 2017; referred to as the *study period*). Chapter 4 describes the availability analysis in seven parts:

- A. Purpose of the availability analysis;
- B. Potentially available businesses;
- C. Businesses in the availability database;
- D. Availability calculations;
- E. Availability results;
- F. Base figure for overall DBE goal; and
- G. Implications for DBE contract goals.

Appendix E provides supporting information related to the availability analysis.

A. Purpose of the Availability Analysis

BBC examined the availability of minority- and woman-owned businesses for Caltrans and subrecipient local agency prime contracts and subcontracts to provide information related to the agency's implementation of the Federal Disadvantaged Business Enterprise (DBE) Program. In addition, BBC used availability analysis results as inputs in the disparity analysis as a benchmark to compare to the percentage of Caltrans's transit-related contract dollars that went to minority- and woman-owned businesses during the study period (i.e., *utilization*). Comparisons between utilization and availability allowed the study team to determine whether any minority- or woman-owned business groups were *underutilized* during the study period relative to their availability for that work.

B. Potentially Available Businesses

BBC's availability analysis focused on specific areas of work (i.e., *subindustries*) related to the types of transit-related professional services and goods and services prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period. BBC began the availability analysis by identifying the specific subindustries in which Caltrans spends the majority of its relevant contracting dollars as well as the geographic areas in which the majority of the businesses with which Caltrans spends those contracting dollars are located (i.e., the *relevant geographic market area*, which BBC identified as the entire state of California). The study team then developed a representative and unbiased database of potentially available businesses through surveys with businesses located in the relevant geographic market area that

perform work within relevant subindustries. That method of examining availability is referred to as a *custom census* and has been accepted in federal court as the preferred methodology for conducting availability analyses.^{1,2,3}

Overview of availability surveys. The study team conducted telephone surveys with business owners and managers to identify California businesses that are potentially available for Caltrans’s transit-related professional services and goods and services prime contracts and subcontracts.⁴ BBC began the survey process by compiling a comprehensive and unbiased *phone book* of all types of California businesses—that is, not only those businesses that are minority- or woman-owned but *all* businesses—that perform work in relevant industries. BBC developed that phone book based on information from Dun & Bradstreet (D&B) Marketplace.

BBC collected information about business establishments listed under 8-digit work specialization codes (as developed by D&B) that were most related to the transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period. BBC obtained listings on 2,224 California businesses that do work related to those work specializations. However, BBC did not have working phone numbers for 485 of those businesses. BBC attempted availability surveys with the remaining 1,739 business establishments.

Availability survey information. The BBC project team conducted telephone surveys with the owners or managers of the identified business establishments. Survey questions covered many topics about each business, including:

- Status as a private business (as opposed to a public agency or nonprofit organization);
- Status as a subsidiary or branch of another company;
- Primary lines of work;
- Role as a contractor (i.e., prime contractor, subcontractor, or both);
- Qualifications and interest in performing work for Caltrans or other local agencies;
- Largest prime contract or subcontract bid on or performed in the previous five years;
- Year of establishment; and
- Race/ethnicity and gender of ownership.

Potentially available businesses. BBC considered businesses to be potentially available for relevant prime contracts or subcontracts if they reported having a location in California and possessing *all* of the following characteristics:

¹ *Midwest Fence Corporation v. United States DOT and Federal Highway Administration, the Illinois DOT, the Illinois State Toll Highway Authority, et al.*, 84 F. Supp. 3d 705, 2015 WL 1396376 (N.D. Ill., 2015), *affirmed*, 840 F.3d 932 (7th Cir. 2016).

² *Geod Corporation v. New Jersey Transit Corporation, et al.*, 746 F. Supp.2d 642, 2010 WL 4193051 (D. N. J. October 19, 2010).

³ *Northern Contracting, Inc. v. Illinois*, 2005 WL 2230195 (N.D. Ill., 2005), *aff’d* 473 F.3d 715 (7th Cir. 2007).

⁴ The study team offered business representatives the option of completing surveys via fax or e-mail if they preferred not to complete surveys via telephone.

- Being a private business (as opposed to a nonprofit organization);
- Performing work relevant to Caltrans’s transit-related professional services or goods and services contracting;
- Having bid on or performed professional services or goods and services prime contracts or subcontracts in either the public sector or private sector in the past five years;
- Being able to perform work or serve customers in the geographical area in which the work took place; and
- Being qualified and interested in performing work for Caltrans or other local agencies.⁵

BBC also considered key information about businesses to determine if they were potentially available for specific transit-related prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period:

- The largest contract they bid on or performed in the past five years; and
- The year in which they were established.

C. Businesses in the Availability Database

After conducting availability surveys with thousands of local businesses, the study team developed a representative and unbiased database of information about businesses that are potentially available for Caltrans’s transit-related professional services and goods and services contracts. Figure 4-1 presents the percentage of businesses in the study team’s *availability database* that were minority- or woman-owned. The information in Figure 4-1 reflects a simple *head count* of businesses with no analysis of their availability for specific Caltrans prime contracts and subcontracts. Thus, it represents only a first step toward analyzing the availability of minority- and woman-owned businesses for Caltrans work. The database included 146 businesses that are potentially available for specific transit-related contracts that Caltrans awarded during the study period. As shown in Figure 4-1, of those businesses, 36.3 percent were minority- or woman-owned.

Figure 4-1.
Percentage of businesses in the availability database that were minority- or woman-owned

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

Source:
 BBC Research & Consulting availability analysis.

Business Group	Availability %
Non-Hispanic white woman-owned	8.9 %
Asian Pacific American-owned	4.1 %
Black American-owned	7.5 %
Hispanic American-owned	12.3 %
Native American-owned	0.0 %
Subcontinent American-owned	3.4 %
Total Minority- and Woman-owned	36.3 %

⁵ The study team gathered that information separately for prime contract and subcontract work.

D. Availability Calculations

BBC analyzed information from the availability database to develop dollar-weighted estimates of the availability of minority- and woman-owned businesses for Caltrans's transit-related work. Those estimates represent the percentage of relevant professional services and goods and services contracting dollars that minority- and woman-owned businesses would be expected to receive based on their availability for specific types and sizes of Caltrans and subrecipient local agency prime contracts and subcontracts.

Steps to calculating availability. BBC used a bottom up, contract-by-contract matching approach to calculate availability. Only a portion of the businesses in the availability database was considered potentially available for any given prime contract or subcontract. BBC first examined the characteristics of each specific prime contract or subcontract (referred to generally as a *contract element*) including type of work, location of work, contract size, and contract date 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 that they:
 - Are qualified and interested in performing professional services or goods and services work in that particular role for that specific type of work for Caltrans or other local agencies;
 - Are able to serve customers in the geographical area in which the work took place;
 - Have bid on or performed work of that size in the past five years; and
 - Were in business in the year that Caltrans or the subrecipient local agency awarded the contract element.
2. The study team then counted the number of minority-owned businesses, non-Hispanic white woman-owned businesses, and businesses owned by non-Hispanic white men in the availability database that met the criteria specified in Step 1.
3. The study team translated the numeric availability of businesses for the contract element into percentage availability.

BBC repeated those steps for each contract element that the study team examined as part of the disparity study. BBC 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 dollar-weighted estimates of the availability of minority- and woman-owned businesses, both overall and separately for each racial/ethnic and gender group. Figure 4-2 provides an example of how BBC calculated availability for a specific subcontract associated with a prime contract that a subrecipient local agency awarded during the study period.

Improvements on a simple head count of businesses. BBC used a custom census approach to calculating the availability of minority- and woman-owned businesses for relevant Caltrans work rather than using a simple head count of minority- and woman-owned businesses (e.g., simply calculating the percentage of all local professional services and goods and services businesses that are minority- or woman-owned). There are several important ways in which BBC's custom census approach to measuring availability is more precise than completing a simple head count.

BBC's approach accounts for type of work. Federal regulations suggest calculating availability based on businesses' abilities to perform specific types of work. For example, the United States Department of Transportation (USDOT) gives the following example in "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program:"

If 90 percent of an agency's contracting dollars is spent on heavy construction and 10 percent on trucking, the agency would calculate the percentage of heavy construction businesses that are [minority- or woman-owned] and the percentage of trucking businesses that are [minority- or woman-owned], and weight the first figure by 90 percent and the second figure by 10 percent when calculating overall [minority- and woman-owned business] availability.⁶

BBC took type of work into account by examining seven different subindustries related to professional services and goods and services as part of estimating availability for relevant Caltrans prime contracts and subcontracts.

BBC's approach accounts for qualifications and interest in relevant prime contract and subcontract work. The study team collected information on whether businesses are qualified for and interested in working as prime contractors, subcontractors, or both on transit-related professional services and goods and services work (in addition to considering several other

**Figure 4-2.
Example of the availability calculation
for a subcontract**

On a contract that a subrecipient local agency awarded in 2014, the prime contractor awarded a subcontract worth \$57,094 for engineering work. To determine the overall availability of minority- and woman-owned businesses for that subcontract, the study team identified businesses in the availability database that:

- a. Were in business in 2014;
- b. Indicated that they perform engineering work;
- c. Reported bidding on work of similar or greater size in the past; and
- d. Reported qualifications and interest in working as a subcontractor on Caltrans or other local agency projects.

The study team found 50 businesses in the availability database that met those criteria. Of those businesses, 14 were minority- or woman-owned businesses. Thus, the availability of minority- and woman-owned businesses for the subcontract was 28 percent (i.e., $14/50 \times 100 = 28$).

⁶ Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

factors related to relevant prime contracts and subcontracts such as contract type, size, and location):

- Businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts;
- Businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts; and
- 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.

BBC’s approach accounts for the relative capacity of businesses. BBC considered the size—in terms of dollar value—of the prime contracts and subcontracts that a business bid on or received in the previous five years (i.e., *relative capacity*) when determining whether to count that business as available for a particular contract element. BBC considered whether businesses had previously bid on or received at least one contract of an equivalent or greater dollar value. BBC’s approach is consistent with many recent, key court decisions that have found relative capacity measures to be important to estimating availability (e.g., *Associated General Contractors of America, San Diego Chapter vs. California Department of Transportation, et al.*,⁷ *Western States Paving Company v. Washington State DOT*,⁸ *Rothe Development Corp. v. U.S. Department of Defense*,⁹ and *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*¹⁰).

BBC’s approach generates dollar-weighted results. BBC 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 proportionately more to overall availability estimates than those of relatively small contract elements. BBC’s approach is consistent with relevant case law and federal regulations including USDOT’s “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program,” which suggests a dollar-weighted approach to calculating availability.

E. Availability Results

BBC estimated the availability of minority- and woman-owned businesses for the 354 transit-related professional services and goods and services prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017.

Overall results. Figure 4-3 presents overall dollar-weighted availability estimates by racial/ethnic and gender group for the transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period. Overall, the availability of minority- and

⁷ *AGC, San Diego Chapter v. California DOT*, 2013 WL 1607239 (9th Cir. April 16, 2013).

⁸ *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

⁹ *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008).

¹⁰ *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*, 943 F. Supp. 1546 (S.D. Fla. 1996).

woman-owned businesses for Caltrans’s transit-related professional services and goods and services contracts is 1.8 percent. Non-Hispanic white woman-owned businesses (1.3%) and Hispanic American-owned businesses (0.2%) exhibited the highest availability percentages among all groups. Note that availability estimates varied when the study team examined different subsets of those contracts (for availability results for specific contract sets, see Appendix F). Assuming that the mix of the types, sizes, and locations of transit-related contracts that Caltrans and subrecipient local agencies awards in the future are similar to that of the contracts that they awarded during the study period, one might expect 1.8 percent of such contracting dollars to go to minority- and woman-owned businesses based on their availability for that work.

Figure 4-3.
Overall dollar-weighted availability estimates by racial/ethnic and gender group

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

For more detail and results by group, see Figure F-2 in Appendix F.

Source:

BBC Research & Consulting availability analysis.

Business Group	Availability %
Non-Hispanic white woman-owned	1.3 %
Asian Pacific American-owned	0.1 %
Black American-owned	0.1 %
Hispanic American-owned	0.2 %
Native American-owned	0.0 %
Subcontinent American-owned	0.0 %
Total Minority- and Woman-owned	1.8 %

Contract role. Many minority- and woman-owned businesses are small businesses and thus often work as subcontractors. Because of that tendency, it is useful to examine availability estimates separately for prime contracts and subcontracts. Figure 4-4 presents those results. As shown in Figure 4-4, the availability of minority- and woman-owned businesses considered together was larger for subcontracts (28.7%) than for prime contracts (1.7%), suggesting greater opportunity for minority- and woman-owned businesses for transit-related subcontracts.

Figure 4-4.
Availability estimates by contract role

Note:

Numbers rounded to nearest tenth of 1 percent. Numbers may not sum exactly to totals.

For more detail, see Figures F-7 and F-8 in Appendix F.

Source:

BBC Research & Consulting availability analysis.

Business Group	Contract Role	
	Prime Contracts	Subcontracts
Non-Hispanic white woman-owned	1.2 %	12.6 %
Asian Pacific American-owned	0.1 %	1.4 %
Black American-owned	0.1 %	9.7 %
Hispanic American-owned	0.2 %	3.8 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	0.0 %	1.1 %
Total Minority- and Woman-owned	1.7 %	28.7 %

Industry. BBC also examined availability analysis results separately for transit-related professional services and goods and services contracts. As shown in Figure 4-5, the availability of minority- and woman-owned businesses considered together is higher for professional services contracts (21.8%) than for goods and services contracts (1.2%).

Figure 4-5.
Availability estimates by industry

Note:

Numbers rounded to nearest tenth of 1 percent. Numbers may not sum exactly to totals.

For more detail, see Figures F-5 and F-6 in Appendix F.

Source:

BBC Research & Consulting availability analysis.

Business Group	Industry	
	Professional Services	Goods and Services
Non-Hispanic white woman-owned	10.2 %	1.0 %
Asian Pacific American-owned	4.8 %	0.0 %
Black American-owned	2.4 %	0.1 %
Hispanic American-owned	3.2 %	0.1 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	1.2 %	0.0 %
Total Minority- and Woman-owned	21.8 %	1.2 %

F. Base Figure for Overall DBE Goal

Establishing a base figure is the first step in calculating an overall goal for DBE participation in Caltrans’s Federal Transit Administration (FTA)-funded transportation contracts.¹¹ BBC calculated the base figure using the same availability database and approach described above except that calculations only included *potential DBEs*—that is, minority- and woman-owned businesses that are DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 Code of Federal Regulations Part 26—and only included FTA-funded prime contracts and subcontracts. BBC’s approach to calculating Caltrans’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 20, 2011 that outline revisions to the Federal DBE Program; and
- USDOT’s “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program.”

BBC’s availability analysis indicates that the availability of potential DBEs for Caltrans’s FTA-funded contracts is 1.7 percent. Caltrans might consider 1.7 percent as the base figure for its overall goal for DBE participation, assuming that the types, sizes, and locations of the FTA-funded contracts that the agency awards in the time period that the goal will cover are similar to the types of FTA-funded contracts that the agency and subrecipient local agencies awarded during the study period. For details about Caltrans’s overall DBE goal, see Chapter 8.

Differences from overall availability. The availability of potential DBEs for FTA-funded contracts is slightly lower than the availability of minority- and woman-owned businesses for all transit-related professional services and goods and services contracts that Caltrans and subrecipient local agencies awarded during the study period (see Figure 4-3). BBC’s calculation of the overall availability of minority- and woman-owned businesses includes three groups of

¹¹ The study team considered a contract to be FTA-funded if it included at least one dollar of FTA funding.

minority- and woman-owned businesses that the study team did not count as potential DBEs when calculating the base figure:

- Minority- and woman-owned businesses that graduated from the DBE Program (that were not recertified);
- Minority- and woman-owned businesses that are not currently DBE-certified but that applied for DBE certification and were denied; and
- Minority- and woman-owned businesses that are not currently DBE-certified that reported annual revenues over the most recent three years that exceeded revenue requirements specified as part of the Federal DBE Program.

In addition, the study team's analyses for calculating the base figure for FTA-funded contracts only included FTA-funded prime contracts and subcontracts. The calculations for the overall availability of minority- and woman-owned businesses included both FTA- and locally-funded transit-related prime contracts and subcontracts.

Additional steps to determine an overall DBE goal. Caltrans must consider whether to make a step-2 adjustment to the base figure as part of determining its overall DBE goal for its FTA-funded contracts. Step-2 adjustments can be upward or downward, but there is no requirement for Caltrans to make a step-2 adjustment as long as the agency can explain what factors it considered and why no adjustment was warranted. Chapter 8 discusses factors that Caltrans might consider in deciding whether to make a step-2 adjustment to the base figure.

G. Implications for Any DBE Contract Goals

If Caltrans determines that the use of DBE contract goals is appropriate in the future, it might use information from the availability analysis when setting DBE goals on individual, FTA-funded contracts. Caltrans should also consider information from a current DBE directory, a current bidders list, or other sources that could provide information about the availability of minority- and woman-owned businesses to participate in particular contracts. The Federal DBE Program provides agencies that use DBE contract goals with some flexibility in how they set those goals. DBE goals on some contracts might be higher than the overall DBE goal whereas DBE goals on other contracts might be lower than the overall DBE goal, based on the availability of DBEs for particular work types. Similarly, there may be some FTA-funded contracts for which setting DBE contract goals would not be appropriate.

CHAPTER 5.

Utilization Analysis

CHAPTER 5.

Utilization Analysis

Chapter 5 presents information about the participation of minority- and woman-owned businesses in transit-related professional services and goods and services contracts that the California Department of Transportation (Caltrans) and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017 (i.e., the *study period*). BBC Research & Consulting (BBC) measured the participation of minority- and woman-owned businesses in Caltrans’s transit-related contracting in terms of *utilization*—the percentage of dollars that minority- and woman-owned businesses received on relevant prime contracts and subcontracts during the study period.¹ BBC considered utilization results on their own and as inputs in the disparity analysis. BBC measured the participation of all minority- and woman-owned businesses in Caltrans’s transit-related contracts regardless of whether they were certified as Disadvantaged Business Enterprises (DBEs). BBC also measured participation separately for minority- and woman-owned businesses that were DBE-certified.

Overall Results

Figure 5-1 presents the percentage of prime contract and subcontract dollars that minority- and woman-owned businesses received on transit-related professional services and goods and services contracts that Caltrans and subrecipient local agencies awarded during the study period. Overall, minority- and woman-owned businesses considered together received 4.8 percent of those dollars. Only a small percentage of those contracting dollars—0.4 percent—went to certified DBEs. Hispanic American-owned businesses (4.5%) showed higher levels of participation in Caltrans’s transit-related contracts than all other groups. With the exception of a small number of subrecipient local agency contracts (13 prime contracts and subcontracts in total), Caltrans and subrecipient local agencies did not use DBE contract goals or any other race- or gender-conscious measures in awarding contracts during the study period.

Figure 5-1.
Overall utilization analysis results

Note:
Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.

For more detail, see Figure F-2 in Appendix F.

Source:
BBC Research & Consulting utilization analysis.

Business Group	Utilization
Non-Hispanic white woman-owned	0.2 %
Asian Pacific American-owned	0.1 %
Black American-owned	0.0 %
Hispanic American-owned	4.5 %
Native American-owned	0.0 %
Subcontinent American-owned	0.1 %
Total Minority- and Woman-owned	4.8 %

¹ “Woman-owned businesses” refers to non-Hispanic white woman owned businesses. Information and results for minority woman-owned businesses are included along with their corresponding racial/ethnic groups.

Contract Role

Many minority- and woman-owned businesses are small businesses and, thus, often work as subcontractors. Because of that tendency, it is useful to examine utilization results separately for prime contracts and subcontracts. Figure 5-2 presents those results. As shown in Figure 5-2, the participation of minority- and woman-owned businesses considered together was much higher in subcontracts (33.5%) than prime contracts (4.7%). The vast majority of contracting dollars that Caltrans and subrecipient local agencies awarded during the study period were associated with prime contracts.

Figure 5-2.
Utilization analysis results
by contract role

Note:

Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.

For more detail, see Figures F-7 and F-8 in Appendix F.

Source:

BBC Research & Consulting utilization analysis.

Business Group	Contract Role	
	Prime Contracts	Subcontracts
Non-Hispanic white woman-owned	0.1 %	19.3 %
Asian Pacific American-owned	0.0 %	3.7 %
Black American-owned	0.0 %	0.0 %
Hispanic American-owned	4.5 %	8.5 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	0.1 %	2.0 %
Total Minority- and Woman-owned	4.7 %	33.5 %

Industry

BBC also examined utilization analysis results separately for Caltrans's transit-related professional services and goods and services contracts. As shown in Figure 5-3, the participation of minority- and woman-owned businesses considered together was higher in professional services contracts (22.4%) than goods and services contracts (4.3%).

Figure 5-3.
Utilization results by relevant
industry

Note:

Numbers rounded to nearest tenth of 1 percent so may not sum exactly to totals.

For more detail, Figures F-5 and F-6 in Appendix F

Source:

BBC Research & Consulting utilization analysis.

Business Group	Industry	
	Professional Services	Goods and Services
Non-Hispanic white woman-owned	6.8 %	0.0 %
Asian Pacific American-owned	1.9 %	0.0 %
Black American-owned	0.0 %	0.0 %
Hispanic American-owned	11.6 %	4.3 %
Native American-owned	0.0 %	0.0 %
Subcontinent American-owned	2.1 %	0.0 %
Total Minority- and Woman-owned	22.4 %	4.3 %

Concentration of Dollars

BBC analyzed whether the dollars that relevant business groups received on transit-related contracts during the study period were spread across a relatively large number of businesses or were concentrated with a relatively small number of businesses. The study team assessed that question by calculating:

- The number of different businesses within each group that received contracting dollars during the study period; and

- The number of different businesses within each relevant group that accounted for 75 percent of the group’s total contracting dollars during the study period.

Figure 5-4 presents those results. Overall, 58 different minority- and woman-owned businesses participated in Caltrans’s transit-related contracts during the study period. For most racial/ethnic and gender groups, a single business accounted for 75 percent or more of the group’s total contracting dollars during the study period.

Figure 5-4.
Concentration of dollars that went to minority- and woman-owned businesses

Source:
 BBC Research & Consulting utilization analysis.

Business Group	Utilized Businesses	<i>Businesses Accounting for 75% of Dollars</i>
Non-Hispanic white woman-owned	25	5
Asian Pacific American-owned	12	1
Black American-owned	1	1
Hispanic American-owned	16	1
Native American-owned	0	0
Subcontinent American-owned	4	1

CHAPTER 6.

Disparity Analysis

CHAPTER 6.

Disparity Analysis

The disparity analysis compared the participation of minority- and woman-owned businesses in transit-related professional services and goods and services contracts that the California Department of Transportation (Caltrans) and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017 (i.e., the *study period*) to what those businesses might be expected to receive based on their availability for that work. Chapter 6 presents the disparity analysis in three parts:

- A. Overview;
- B. Disparity analysis results; and
- C. Statistical significance.

A. Overview

As part of the disparity analysis, BBC Research & Consulting (BBC) compared the actual participation, or *utilization*, of minority- and woman-owned businesses in Caltrans’s transit-related prime contracts and subcontracts with the percentage of contract dollars that those businesses might be expected to receive based on their availability for that work.¹ BBC made those comparisons for each relevant racial/ethnic and gender group. BBC expressed both actual participation and availability as percentages of the total dollars associated with a particular set of contracts (e.g., 5% participation compared with 4% availability). BBC then calculated a *disparity index* to help compare participation and availability results across relevant racial/ethnic and gender groups and different contract sets using the following formula:

$$\frac{\% \text{ participation}}{\% \text{ availability}} \times 100$$

A disparity index of 100 indicates *parity* between actual participation and availability. That is, participation of minority- and woman-owned businesses was largely in line with availability. A disparity index of less than 100 indicates a *disparity* between participation and availability. That is, minority- and woman-owned businesses were *underutilized* relative to their availability. Finally, a disparity index of less than 80 indicates a *substantial disparity* between participation and availability. That is, minority- and woman-owned businesses were substantially underutilized relative to their availability.²

¹ “Woman-owned businesses” refers to non-Hispanic white woman owned businesses. Information and results for minority woman-owned businesses are included along with their corresponding racial/ethnic groups.

² Many courts have deemed disparity indices below 80 as being *substantial* and have accepted such outcomes as evidence of adverse conditions for minority- and woman-owned businesses (e.g., see *Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1041; *Eng’g Contractors Ass’n of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d at 914, 923 (11th Circuit 1997); and *Concrete Works of Colo., Inc. v. City and County of Denver*, 36 F.3d 1513, 1524 (10th Cir. 1994). See Appendix B for additional discussion of those and other cases.

The disparity analysis results that BBC presents in Chapter 6 summarize detailed results tables that are presented in Appendix F. Each table in Appendix F presents disparity analysis results for a different set of contracts. For example, Figure 6-1, which is identical to Figure F-2 in Appendix F, presents disparity analysis results for all of the relevant transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period. Appendix F includes analogous tables for different subsets of contracts, including:

- Professional services and goods and services;
- Prime contracts and subcontracts; and
- Contracts awarded in different study period years.

As illustrated in Figure 6-1, the disparity analysis tables present information about each relevant racial/ethnic and gender group (as well as about all businesses) in separate rows:

- “All businesses” in row (1) pertains to information about all businesses regardless of the race/ethnicity and gender of their owners.
- Row (2) presents results for all minority- and woman-owned businesses considered together, regardless of whether they were certified as Disadvantaged Business Enterprises (DBEs).
- Row (3) presents results for all non-Hispanic white woman-owned businesses, regardless of whether they were certified as DBEs.
- Row (4) presents results for all minority-owned businesses, regardless of whether they were certified as DBEs.
- Rows (5) through (9) present results for businesses of each individual racial/ethnic group, regardless of whether they were certified as DBEs.

Utilization results. Each disparity analysis table includes the same columns and rows:

- Column (a) presents the total number of prime contracts and subcontracts (i.e., contract elements) that BBC analyzed as part of the contract set. As shown in row (1) of column (a) of Figure 6-1, BBC analyzed 354 contract elements. The value presented in column (a) for each individual group represents the number of contract elements in which businesses of that particular group participated (e.g., as shown in row (3) of column (a), non-Hispanic white woman-owned businesses participated in 46 prime contracts and subcontracts).
- Column (b) presents the dollars (in thousands) that were associated with the set of contract elements. As shown in row (1) of column (b) of Figure 6-1, BBC examined approximately \$1.1 billion for the entire set of contract elements. The dollar totals include both prime contract and subcontract dollars. The value presented in column (b) for each individual racial/ethnic and gender group represents the dollars that the businesses of that particular group received on the set of contract elements (e.g., as shown in row (3) of column (b), non-Hispanic white woman-owned businesses received approximately \$2 million).

Figure 6-1.
Example of a disparity analysis table from Appendix F (same as Figure F-2 in Appendix F)

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	354	\$1,123,944	\$1,123,944				
(2) Minority and woman-owned businesses	86	\$53,528	\$53,528	4.8	1.8	3.0	200+
(3) Non-Hispanic white woman-owned	46	\$2,014	\$2,014	0.2	1.3	-1.1	14.2
(4) Minority-owned	40	\$51,513	\$51,513	4.6	0.5	4.1	200+
(5) Asian Pacific American-owned	16	\$595	\$595	0.1	0.1	-0.1	41.9
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.0
(7) Hispanic American-owned	18	\$50,268	\$50,268	4.5	0.2	4.3	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	5	\$650	\$650	0.1	0.0	0.0	165.9
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	53	\$4,780	\$4,780	0.4			
(12) Non-Hispanic white woman-owned DBE	35	\$1,838	\$1,838	0.2			
(13) Minority-owned DBE	18	\$2,941	\$2,941	0.3			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	9	\$2,648	\$2,648	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of one percent. "Woman-owned" refers to non-Hispanic white woman-owned.

Source: BBC Research & Consulting disparity analysis.

- Column (c) presents the dollars (in thousands) that were associated with the set of contract elements after adjusting those dollars for businesses that BBC identified as minority-owned or DBEs but for which specific race/ethnicity information was not available. The dollar totals include both prime contract and subcontract dollars.
- Column (d) presents the participation of each racial/ethnic and gender group as a percentage of total dollars associated with the set of contract elements. BBC calculated each percentage in column (d) by dividing the dollars going to a particular group in column (c) by the total dollars associated with the set of contract elements shown in row (1) of column (c), and then expressing the result as a percentage (e.g., for non-Hispanic white woman-owned businesses, the study team divided \$2 million by \$1.1 billion and multiplied by 100 for a result of approximately 0.2%, as shown in row (3) of column (d)).
- The bottom half of Figure 6-1 presents utilization analysis results for businesses that were certified as DBEs.

Availability results. Column (e) of Figure 6-1 presents the availability of each relevant racial/ethnic and gender group for all contract elements that the study team analyzed as part of the contract set. Availability estimates, which are presented as a percentage of the total contracting dollars associated with the set of contracts, serve as benchmarks against which to compare the actual participation of specific groups for specific sets of contracts (e.g., as shown in row (3) of column (e), the availability of non-Hispanic white woman-owned businesses is 1.3%).

Differences between participation and availability. Column (f) of Figure 6-1 presents the percentage point difference between participation and availability for each relevant racial/ethnic and gender group. For example, as presented in row (3) of column (f) of Figure 6-1, the participation of non-Hispanic white woman-owned businesses in Caltrans's transit-related contracts was 1.1 percentage points less than their availability.

Disparity indices. BBC also calculated a disparity index for each relevant racial/ethnic and gender group. Column (g) of Figure 6-1 presents the disparity index for each relevant racial/ethnic and gender group. For example, as reported in row (3) of column (g), the disparity index for non-Hispanic white woman-owned businesses was approximately 14, indicating that non-Hispanic white woman-owned businesses actually received approximately \$0.14 for every dollar that they might be expected to receive based on their availability for transit-related prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period.

BBC applied the following rules when disparity indices were exceedingly large or could not be calculated because the study team did not identify any businesses of a particular group as available for a particular contract set:

- When BBC's calculations showed a disparity index exceeding 200, BBC reported an index of 200+. A disparity index of 200+ means that participation was more than twice as much as availability for a particular group for a particular set of contracts.
- When there was no participation and no availability for a particular group for a particular set of contracts, BBC reported a disparity index of 100, indicating parity.

B. Disparity Analysis Results

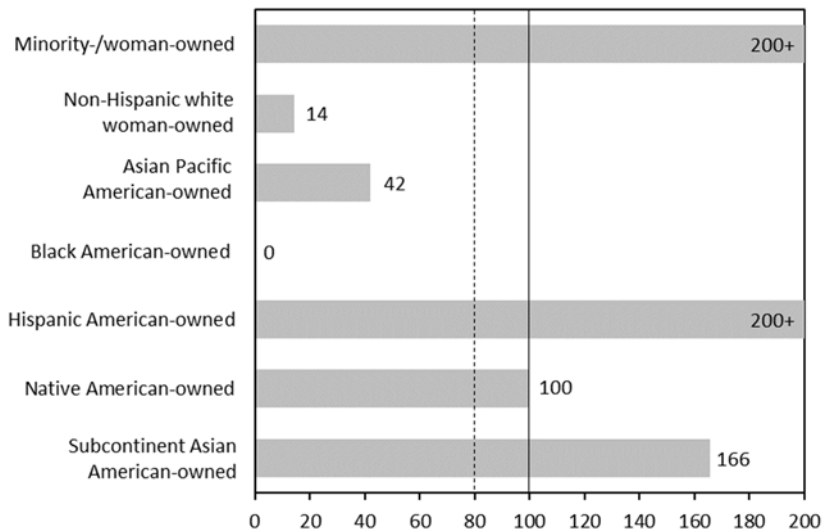
BBC measured disparities between the participation and availability of minority- and woman-owned businesses for various sets of transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period. The study team measured disparities for minority- and woman-owned businesses considered together and separately for each relevant racial/ethnic and gender group.

Overall. Figure 6-2 presents disparity indices for all relevant prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period. The line down the center of the graph shows a disparity index level of 100, which indicates parity between participation and availability. Disparity indices of less than 100 indicate disparities between participation and availability (i.e., underutilization). For reference, a line is also drawn at a disparity index level of 80, because some courts use 80 as the threshold for what indicates a substantial disparity.

Figure 6-2.
Disparity indices by group

Note:
Numbers rounded to nearest whole number.
For more detail, see Figure F-2 in Appendix F.

Source:
BBC Research & Consulting disparity analysis.



As shown in Figure 6-2, overall, the participation of minority- and woman-owned businesses in transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period exceeded what one might expect based on the availability of those businesses for that work (disparity index of 200+). However, disparity indices varied greatly across individual groups. Results by individual group indicated that:

- Three groups exhibited disparity indices substantially below parity: non-Hispanic white woman-owned businesses (disparity index of 14), Asian Pacific American-owned businesses (disparity index of 42), and Black American-owned businesses (disparity index of 0).
- Hispanic American-owned businesses (disparity index of 200+), Native American-owned businesses (disparity index of 100), and Subcontinent Asian American-owned businesses (disparity index of 166) did not exhibit a disparity.

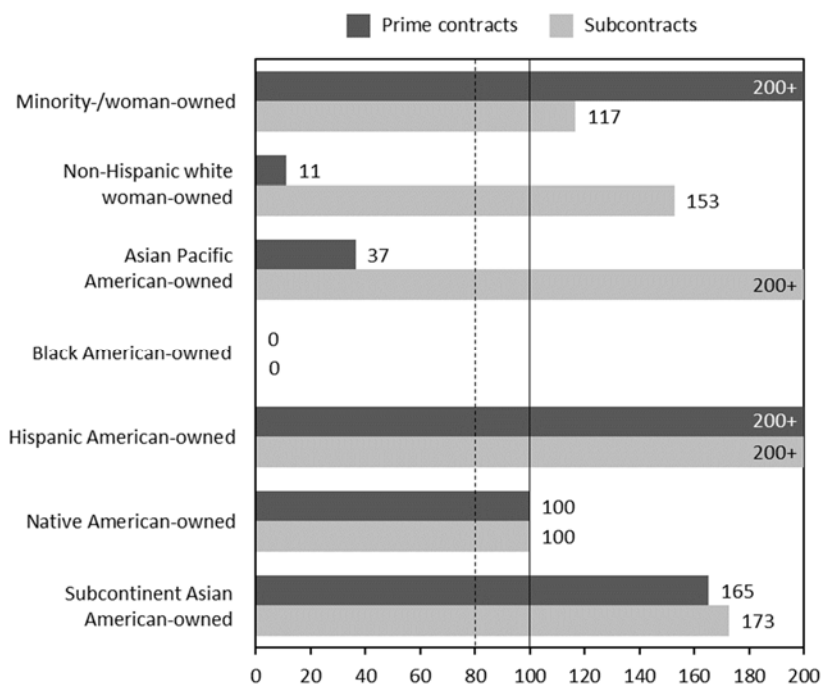
With the exception of a small number of subrecipient local agency contracts (13 prime contracts and subcontracts in total), Caltrans and subrecipient local agencies did not use DBE contract goals or any other race- or gender-conscious measures in awarding contracts during the study period.

Contract role. Subcontracts tend to be much smaller in size than prime contracts. As a result, subcontracts are often more accessible than prime contracts to minority- and woman-owned businesses. Thus, it might be reasonable to expect better outcomes for minority- and woman-owned businesses on subcontracts than on prime contracts. Figure 6-3 presents disparity indices for all relevant groups separately for prime contracts and subcontracts. As shown in Figure 6-3, minority- and woman-owned businesses considered together showed disparity indices that exceeded parity on both prime contracts (disparity index of 200+) and subcontracts (disparity index of 117).

Figure 6-3.
Disparity indices for prime contracts and subcontracts

Note:
Numbers rounded to nearest whole number.
For more detail, see Figures F-7 and F-8 in Appendix F.

Source:
BBC Research & Consulting disparity analysis.



Results for individual groups indicated that:

- Three groups exhibited disparity indices substantially below parity on prime contracts: non-Hispanic white woman-owned businesses (disparity index of 11), Asian Pacific American-owned businesses (disparity index of 37), and Black American-owned businesses (disparity index of 0).
- Black American-owned businesses also exhibited a disparity index substantially below parity on subcontracts (disparity index of 0). No other groups showed disparities on subcontracts.

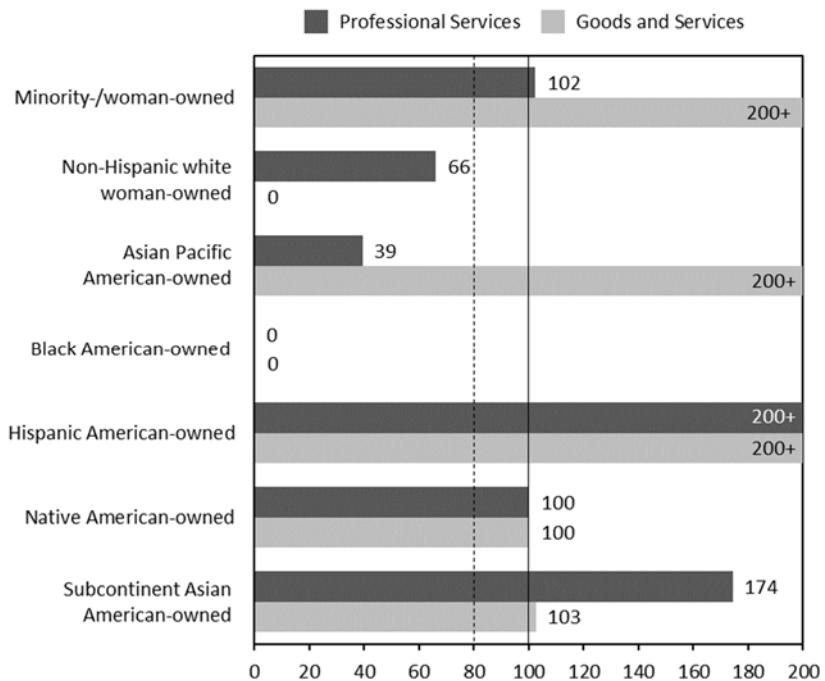
Industry. BBC examined disparity analysis results separately for transit-related professional services and goods and services contracts. Figure 6-4 presents disparity indices for all relevant groups by contracting area. Disparity analyses results differed by contracting area and group:

- Minority- and woman-owned businesses considered together showed a disparity index at parity on professional services contracts (disparity index of 102) and a disparity index that exceeded parity on goods and services contracts (disparity index of 200+).
- Three groups exhibited disparity indices substantially below parity on professional services contracts: non-Hispanic white woman-owned businesses (disparity index of 66), Asian Pacific American-owned businesses (disparity index of 39), and Black American-owned businesses (disparity index of 0). No other groups exhibited disparities on professional services contracts.
- Two groups exhibited disparity indices substantially below parity on goods and services contracts: non-Hispanic white woman-owned businesses (disparity index of 0) and Black American-owned businesses (disparity index of 0). No other groups exhibited disparities on goods and services contracts.

Figure 6-4.
Disparity indices for
professional services
and goods and services
contracts

Note:
 Numbers rounded to nearest whole number.
 For more detail, see Figures F-5 and F-6 in Appendix F.

Source:
 BBC Research & Consulting disparity analysis.



C. Statistical Significance

Statistical significance tests allow researchers to test the degree to which they can reject random chance as an explanation for any observed quantitative differences. In other words, a statistically significant difference is one that one can consider to be reliable or *real*. BBC used an analysis that relies on repeated, random simulations to examine the statistical significance of disparity analysis results, referred to as a *Monte Carlo* analysis. Figure 6-5 describes how the study team used Monte Carlo to test the statistical significance of disparity analysis results

**Figure 6-5.
Monte Carlo Analysis**

BBC used a Monte Carlo approach to simulate randomly-selected businesses *winning* each individual contract element that the study team included in its analyses. For each contract element, BBC’s availability database provided information on individual businesses that are available for that contract element based on type of work, contractor role, and contract size. BBC assumed that each available business had an equal chance of winning the contract element, so the odds of a business from a certain group winning it were equal to the number of businesses from that group available for it divided by the total number of businesses available for it. The Monte Carlo simulation then randomly chose a business from the pool of available businesses to win the contract element.

The Monte Carlo simulation repeated the above process for all contract elements in a particular contract set. The output of a single Monte Carlo simulation for all contract elements in the set represented the simulated participation of minority- and woman-owned businesses for that set of contract elements. The entire Monte Carlo simulation was then repeated 1 million times for each contract set. The combined output from all 1 million simulations represented a probability distribution of the overall participation of minority- and woman-owned businesses if contracts were awarded randomly based only on the availability of relevant businesses working in the local marketplace.

The output of the Monte Carlo simulations represents the number of simulations out of 1 million that produced simulated participation that was equal or below the actual observed participation for each racial/ethnic and gender group and for each set of contracts. If that number was less than or equal to 25,000 (i.e., 2.5% of the total number of simulations), then BBC considered the corresponding disparity index to be statistically significant at the 95 percent confidence level. If that number was less than or equal to 50,000 (i.e., 5.0% of the total number of simulations), then BBC considered that disparity index to be statistically significant at the 90 percent confidence level.

Results. BBC used Monte Carlo analysis to test whether the disparities that the study team observed on all transit-related contracts considered together were statistically significant. Figure 6-6 presents those results. As shown in Figure 6-6, results from the Monte Carlo analysis indicated that the disparities on all contracts for non-Hispanic white woman-owned businesses and Black American-owned businesses were statistically significant at the 95 percent confidence level.

**Figure 6-6.
Monte Carlo simulation results for disparity analysis results**

Race/Ethnicity and Gender	Disparity Index	Number of simulation runs out of one million that replicated observed utilization	Probability of observed disparity occurring due to "chance"
Total minority-/woman-owned	200+	N/A	N/A
White woman-owned	14	8,111	0.8%
Total minority-owned	200+	N/A	N/A
Asian Pacific American-owned	42	626,914	62.7%
Black American-owned	0	0	<0.1%
Hispanic American-owned	200+	N/A	N/A
Native American-owned	100	N/A	N/A
Subcontinent Asian American-owned	166	N/A	N/A

Source: BBC Research & Consulting disparity analysis.

CHAPTER 7.

Program Measures

CHAPTER 7.

Program Measures

The California Department of Transportation (Caltrans) used various *race- and gender-neutral measures* to encourage the participation of minority- and woman-owned businesses in transit-related contracts that it awarded during the study period (i.e., October 1, 2014 through September 30, 2017). Caltrans used those measures as part of its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program. Race- and gender-neutral measures are measures that are designed to encourage the participation of all businesses—or, all small businesses—in an agency’s contracting. Participation in such measures is not limited to minority- and woman-owned businesses or to certified DBEs. In contrast, race- and gender-conscious measures are measures that are designed to specifically encourage the participation of minority- and woman-owned businesses in an entity’s contracting (e.g., using DBE goals on individual contracts). With the exception of a small number of contracts that subrecipient local agencies awarded during the study period, Caltrans and subrecipient local agencies did not use any *race- or gender-conscious measures* to encourage the participation minority- and woman-owned businesses in transit-related contracts during the study period.

As part of implementing the Federal DBE Program, agencies must determine whether they can meet their overall annual DBE goals solely through race- and gender-neutral measures or whether race- and gender-conscious measures—such as DBE contract goals—are also needed. As part of doing so, agencies must project the portion of their overall DBE goals that they expect to meet through race- and gender-neutral measures and what portion, if any, they expect to meet through race- and gender-conscious measures. As part of meeting the *narrow tailoring* requirement of the strict scrutiny standard of constitutional review, agencies implementing minority- and woman-owned business programs—including the Federal DBE Program—must meet the maximum feasible portion of overall annual goals through the use of race- and gender-neutral measures (for details, see Appendix B).¹

The United States Department of Transportation (USDOT) offers guidance on how agencies should project the portion of their overall DBE goals that they will meet through race- and gender-neutral and race- and gender-conscious measures, including the following:

- USDOT Questions and Answers about 49 Code of Federal Regulations (CFR) Part 26 addresses factors for federal aid recipients to consider when projecting the portion of their overall DBE goals that they will meet through race- and gender-neutral means.²

¹ 49 CFR Section 26.51.

² https://www.transportation.gov/sites/dot.gov/files/docs/Official_Questions_and_Answers_49_CFR_Part_26_1.pdf

- USDOT “Sample Disadvantaged Business Enterprise Program” provides an example of how an agency might structure the breakout of race-neutral and race-conscious participation in its DBE Program.³
- USDOT “Tips for Goal-Setting” also suggests factors for federal aid recipients to consider when making such projections. An excerpt from that resource is provided in Figure 7-1. For more detail regarding the considerations suggested by USDOT, refer to the USDOT “Tips for Goal-Setting” page.⁴

Based on 49 CFR Part 26 and associated guidance, general areas of questions that transportation agencies might ask related to their projections include:

- A. Is there evidence of discrimination within the local transportation contracting marketplace for any racial/ethnic or gender groups?
- B. What has been the agency’s past experience in meeting its overall DBE goal?
- C. What has DBE participation been when the agency did not use race- or gender-conscious measures?⁵
- D. What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?

Chapter 7 is organized around those general question areas.

A. Is there evidence of discrimination within the local transportation contracting marketplace for any racial/ethnic or gender groups?

As presented in Chapter 2 as well as in Appendices C and D, BBC Research & Consulting (BBC) examined conditions in the California marketplace related to human capital, financial capital, business ownership, and business success. There is substantial evidence of disparities for minorities, women, and minority- and woman-owned businesses overall and for specific groups concerning the above issues. Caltrans should review the information about marketplace conditions presented in this report as well as other information it may have when considering the extent to which it can meet its overall DBE goal through race- and gender-neutral measures.

B. What has been the agency’s past experience in meeting its overall DBE goal?

BBC’s analyses showed that certified DBEs received 0.4 percent of dollars on Federal Transit Administration (FTA)-funded contracts that Caltrans and subrecipient local agencies awarded during the study period, which was well below the agency’s overall DBE goal of 4.0% during that

³ <http://www.dot.gov/osdbu/disadvantaged-business-enterprise/49-cfr-part-26-sample-disadvantaged-business>.

⁴ <http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

⁵ USDOT guidance suggests evaluating (a) DBE participation as prime contractors if DBE contract goals did not affect participation; (b) DBE participation as prime contractors and subcontractors in agency contracts that were awarded without the use of DBE contract goals; and (c) DBE participation in other state, local, or private contracting to which DBE contract goals did not apply.

time. Thus, according to BBC's analyses, Caltrans has not been meeting its overall DBE goal in the recent past.

C. What has DBE participation been when the agency did not use race- or gender-conscious measures?

Caltrans and subrecipient local agencies did not use DBE contract goals or any other race- or gender-conscious measures in awarding the vast majority of their transit-related contracts during the study period. Subrecipient local agencies used DBE contract goals in awarding a total of only 13 prime contracts and subcontracts during the study period, representing \$4.5 million. BBC examined more than \$1.1 billion worth of contracts that Caltrans and subrecipient local agencies awarded without the use of DBE contract goals or any other race- or gender-based measures (i.e., *no-goals* contracts). BBC's analysis showed that certified DBEs received only 0.2 percent of dollars on those no-goals contracts. Caltrans should consider that information when determining the percentage of its overall DBE goal that it can achieve through race- and gender-neutral measures.

D. What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?

When determining the extent to which Caltrans could meet its overall DBE goal through the use of race- and gender-neutral measures, the agency should review the neutral measures that it and other local organizations already have in place and measures that it could implement in the future.

Current race-and gender-neutral measures. Caltrans currently has a broad range of race- and gender-neutral program measures in place to encourage the participation of all small businesses—including DBEs—in its transit-related contracts. The agency plans on continuing the use of those measures in the future. Most of Caltrans's current race- and gender-neutral measures fall into the following categories:

- District Small Business Liaisons;
- Meetings and relationship building;
- Website and communications;
- Advertisements of contract opportunities;
- Outreach events and workshops;
- Financial assistance; and
- Mentor-protégé programs.

Figure 7-1 summarizes current race- and gender-neutral measures that Caltrans will continue using in the future.

Figure 7-1.
Current Caltrans race- and gender-neutral measures

Race- and gender-neutral measures
Publicizes information regarding Caltrans’s contracting opportunities online and in print newspapers, trade journals, and other publications to increase awareness of opportunities for small businesses to participate on Caltrans’s contracts.
Facilitates Statewide Small Business Council meetings—and regional council meetings, where applicable—to enlist the participation of small businesses and business assistance organizations to identify and remove systemic barriers to small business participation.
Hosts District Procurement Fairs to create opportunities for small businesses to meet Caltrans’s buyers and contract managers and learn about solicitation processes and requirements.
Makes at least one District Small Business Liaisons available in each Caltrans district office to serve as a point of contact for small business-related concerns, including how to do business with Caltrans.
Hosts contract-specific outreach events for small businesses to provide information about a project’s scope, schedule, and budget; review the solicitation process; answer questions; and provide a forum for networking.
Publishes "look ahead" reports online for upcoming construction and architecture and engineering contracts to assist small businesses in planning for potential opportunities.
Makes a series of informational handouts and brochures available to assist small businesses in navigating Caltrans’s contracting and procurement opportunities.
Enforces prompt payment laws and requirements applicable to prime contractors and subcontractors, including small businesses.
Collaborates with construction and professional services industry organizations to increase small business participation in Caltrans’s contracts.
Provides easily accessible contracting information on Caltrans’s public website.
Explores opportunities to break larger contracts into smaller contracts.
Maintains online business resource centers—such as Caltrans’s “Contractor’s Corner”—that consolidate contracting information and resources for the benefit of prospective bidders and proposers, including small businesses.
Maintains flowcharts of Caltrans’s advertising, bid opening, award, and approval processes on Caltrans’s website to help small businesses navigate potential contracting opportunities.
Provides training to Caltrans’s contract managers and buyers regarding opportunities for maximizing the participation of small businesses in agency contracts and procurements.
Develops and delivers training for small businesses regarding how to do business with Caltrans.
Hosts pre-bid meetings and pre-proposal conferences to communicate contract-specific requirements and milestones to prospective bidders, including small businesses, as well as introduce small businesses to prime contractors.
Offers the Calmentor program—a mentoring program for small architectural and engineering firms—to encourage partnerships between small businesses and established prime contractors for capacity-building purposes.
Provides an "Opt-In" feature to the Caltrans’s Division of Engineering Services-Office Engineer website to allow small businesses to express their interest in working on particular projects and advertise the services they offer.
Spreads project advertising and bid openings throughout the year to prevent overloading prime contractors and subcontractors, including small businesses.
Maintains a general resource mailbox for small business-related concerns—smallbusinessadvocate@dot.ca.gov—that small businesses can use to ask questions, seek assistance, or request training.
Establishes relationships with financial institutions, surety companies, and insurance companies to provide information and resources for small businesses interested in working on Caltrans’s contracts.
Continues to maintain Caltrans’s Bidder’s List.

Source: California Department of Transportation.

District Small Business Liaisons (DSBLs). Caltrans has appointed small business liaisons in each of the agency’s 12 district offices. DSBLs act as points of contact for small businesses—including DBEs and other minority- and woman-owned businesses—and assist prime contractors in identifying potential subcontractors with which they might partner. The liaisons also implement more focused outreach efforts such as local procurement fairs, workshops, and small business events.

Meetings and relationship building. In an effort to engage its stakeholders and the contracting community, Caltrans meets regularly with a wide range of interest groups, including trade associations and small business and DBE representatives.

Small Business Council meetings. Caltrans hosts statewide Small Business Council meetings with small businesses and associations representing small businesses. Caltrans uses those meetings to provide information on future contract opportunities and to engage small businesses and minority- and woman-owned businesses in its contracting process. In addition, the Small Business Council holds committee meetings that cover more detailed topics related to construction, professional services, and commodities. Those committees are responsible for discussing issues as they arise and presenting recommendations to the main membership body. Caltrans Small Business Council meetings are not limited to members; non-members who are interested in the meetings may attend. In addition to the statewide Small Business Council meetings, other Caltrans districts organize their own Small Business Council meetings to focus on local issues.

Transportation Planning Conference. Caltrans hosts a biennial, three-day Transportation Planning Conference to provide opportunities for attendees to network and interact with transportation practitioners and decision makers; exchange ideas and learn about emerging trends; and learn about opportunities and advancements in transportation planning from national, state, and local experts. Representatives from the Federal Highway Administration (FHWA); FTA; state and local agencies; private organizations; universities; Metropolitan Planning Organizations; Regional Transportation Planning Agencies; transit operators and agencies; tribal governments; and other stakeholder groups typically attend the conference.

Website and communications. Caltrans’s Division of Rail and Mass Transportation’s (DRMT’s) website provides information related to the Federal DBE program as well as information for small businesses, including information about:

- Small Business Administration (SBA) Loan and Bond Guarantee Programs;
- Supportive services programs that DRMT offers in partnership with the Small Business Development Center; and
- Each of Caltrans’s 12 district offices, including contact information for each district’s small business liaison.⁶

⁶ <http://www.dot.ca.gov/drmt/feddbe.html>.

Caltrans also maintains a centralized calendar of events to highlight outreach opportunities throughout the state. DSBLs are responsible for entering information about upcoming events into that calendar.

Advertisements of contract opportunities. In general, DRMT and Caltrans’s Division of Transportation Planning (DOTP) use the California Multiple Awards Schedule (CMAS) to find qualified businesses to bid on projects that they directly manage. Caltrans sends out a Request for Offer to at least three contractors on the CMAS business list that perform the type of work needed for the project. The CMAS Program is overseen by the California Department of General Services (DGS); businesses must apply through DGS to become CMAS contractors.

Outreach events and workshops. Caltrans hosts a number of outreach events and workshops, some of which are organized by Caltrans headquarters and others by Caltrans local district offices. The most notable workshops and outreach events that Caltrans hosts include:

- **Certification workshops:** Caltrans provides certification workshops for DBEs and potential DBEs across the state. The two-hour workshops cover topics including certification requirements and guidelines for completing the certification application. Small business liaisons also provide certification workshops along with local “mock contract” workshops in each of their districts.
- **Procurement fairs:** Caltrans hosts procurement fairs throughout the state in each Caltrans district. For each half-day fair, purchasers from various state departments are invited to have face-to-face discussions with small business owners. In addition, Caltrans provides information about upcoming procurement opportunities along with information about requirements and procedures for doing business with Caltrans.

Financial assistance. Caltrans encourages small businesses to participate in the SBA Loan Program and the SBA Bond Guarantee Program and provides information about both programs on DRMT’s webpage. The SBA Loan Program provides up to \$35,000 in short-term relief for small businesses facing immediate financial hardship. The SBA Bond Guarantee Program guarantees a surety company between 80 and 90 percent of the bond amount in the event a small business defaults on a contract. Those programs help small businesses overcome some of the barriers associated with obtaining financing and meeting bonding requirements.

Mentor-protégé programs. Caltrans offers the “Calmentor” program for small engineering businesses and the “mentor-protégé” program for small construction businesses. Those programs provide small businesses with opportunities to participate in mentor-protégé relationships with larger, more successful businesses working in similar industries. Both programs are designed to foster business partnerships that advance business activities, learning, and networking opportunities for program participants. Mentor-protégé pairs work together to develop an appropriate mentor plan. Mentoring areas might include topics related to business marketing, payroll, or bidding processes for state agencies. Individual Caltrans districts or clusters of districts are responsible for implementing Calmentor and the mentor-protégé program throughout the North Region, the Bay Area, the Central Region, the Southern California Alliance, and San Diego and Imperial County.

DBE programs measures. In addition to program measures open to all small businesses, Caltrans uses several program measures that are designed specifically to encourage the participation of DBEs in the agency’s contracting. Figure 7-2 summarizes program measures that Caltrans currently uses to specifically encourage DBE participation. Notably, Caltrans implements a robust DBE Supportive Services (DBE/SS) Program designed to provide DBEs with various supportive services, including:

- Business planning guidance;
- One-on-one business counseling;
- Customized bid matching;
- DBE certification and construction-specific workshops;
- Contract compliance assistance; and
- Assistance with bid proposals and submission.

Clusters of Caltrans districts partner to administer the DBE/SS Program throughout Caltrans’s Northern, Central, and Southern Regions. Many of the services offered through the DBE/SS Program would likely benefit all small businesses. Caltrans should consider whether the DBE/SS Program—or any of the agency’s other current DBE program measures—could be opened to all small businesses, regardless of whether they are DBE certified.

Figure 7-2.
DBE program measures

DBE program measures
Offers one-Stop DBE certification with Caltrans and 10 other certifying agencies.
Works to increase the number of DBEs certified through the California Unified Certification Program (CUCP).
Tracks and circulates DBE usage by district and discusses usage monthly at the directorate level.
Provides a brochure with vital information for DBEs.
Provides contract administration training through a DBE Supportive Services Consultant.
Reaches out to and solicits DBEs for participation in emergency contracts.
Provides consistent and accurate data collection of DBE utilization.
Provide DBE Supportive Services that consist of technical training and one-on-one business counseling to DBEs.
Updates business preference information in the CUCP database of businesses that are "ready, willing, and able" to perform Caltrans work.
Works to the number of certified DBEs by reaching out to all potential DBEs in California.

Source: California Department of Transportation.

FHWA program measures. Through the Office of Business & Economic Opportunity (OBE), Caltrans also implements a number of program measures that it uses to encourage the participation of DBEs and small businesses in FHWA-funded contracts. Figure 7-3 summarizes program measures that Caltrans currently uses to encourage business participation in FHWA-funded contracts. Although those programs are primarily marketed to contractors and consultants that work on—or are interested in working on—FHWA-funded projects, they are open to other businesses. DRMT and DOTP should consider whether any of Caltrans’s FHWA program measures could further encourage business participation in its FTA-funded contracts.

Figure 7-3.
FHWA project program measures

FHWA project program measures
Reports small business and DBE participation on state and federally-funded contracts—including those managed by local subrecipient agencies—directly into a data management system.
Appoints staff responsible for data collection, verification, measurement, oversight, and reporting.
Institutes performance measurement standards for all race- and gender-neutral measures.
Centralizes tracking of all race- and gender-neutral activities statewide.
Monitors prime contractors to ensure that small businesses and DBEs are not used as pass-through companies on agency contracts.
Provides introductory training for small businesses working as prime contractors or subcontractors to promote opportunities for doing business with Caltrans.
Assigns all bidders an identification number to track all businesses that have bid on Caltrans work.

Source: California Department of Transportation FTA DBE Goal & Methodology Document (FFY 2014-2016) and FHWA DBE Goal & Methodology document (FFY 2013-2015).

Other organizations’ program measures. There are also several organizations throughout California that implement different efforts to encourage the participation of small businesses—including DBEs—in local contracting. Caltrans might consider adopting some of those measures to further encourage small business and DBE participation in its transit-related contracts. Figure 7-4 provides examples of race- and gender-neutral programs that other organizations in California have in place. There may be several reasons why certain measures are not practical for Caltrans, and there may also be measures in addition to those presented in Figure 7-4 that Caltrans might consider using.

Figure 7-4.
Examples of race- and gender-neutral programs that organizations in California have in place

Measure	Description
Bonding Programs	<p>There are a number of programs offering bonding and financial assistance as well as financial training to businesses throughout California. Programs such as the SBA Bond Guarantee Program provide bid, performance, and payment bond guarantees for individual contracts. The USDOT Bonding Assistance Program also provides bonding assistance in the form of bonding fee cost reimbursements for DBEs performing transportation work.</p> <p>A number of programs such as the Los Angeles Unified School District Small Business Bootcamp and Bond Works Program offer training on how to obtain a bond. The school district's program also prepares contractors to manage cash flow and taxes and provides training on credit worthiness criteria in the bond approval process.</p>
Mentor-Protégé Programs	<p>The Associated General Contractors (AGC) of California, in partnership with the Small Business Council and Caltrans, have created a mentor-protégé program in an effort to increase diversity and develop new emerging businesses in the construction industry.</p> <p>The SBA 8(a) Business Development Mentor-Protégé Program is an example of a mentor-protégé program that pairs subcontractors with prime contractors to assist with management; financial and technical assistance; and the exploration of joint venture and subcontractor opportunities for federal contracts.</p> <p>The University of Southern California has a mentor-protégé program to help small businesses develop the capacity to perform as subcontractors and suppliers.</p> <p>The San Diego Association of Governments offers one-on-one mentoring to help businesses develop management skills. The program also provides mentoring assistance to businesses struggling to fulfill their contracts.</p> <p>The SBA has created the All Small Mentor Protégé Program that allows any small business to enter into an agreement with a large business, under which the large business will provide mentorship and assistance. In return, the large and small businesses are permitted to joint venture in order to perform on small business set-aside contracts.</p>
Technical Assistance	<p>Various technical assistance programs are available throughout California. Those programs primarily provide general information and assistance to business start-ups and growing businesses. Industry-specific resources often take the form of checklists of issues of which businesses should be aware and easily accessible business forms. Examples of general support providers include SCORE and the California Small Business Development Center Network. Some large organizations that offer trade-specific classes and seminars include the AGC and the American Council of Engineering Companies.</p> <p>Other technical assistance programs focus on market development and the use of electronic media and technology. Such programs are available through organizations such as The Foundation for the Advancement of Marketing Excellence in Entrepreneurs.</p>
Small Business Finance	<p>Small business financing is available through several local agencies in Southern California. For example, the Pace Business Development Center in Los Angeles supports start-ups with loan package preparation and capital acquisition through financial institutions guaranteed by the SBA. The Southern California Small Business Development Corporation also offers financing assistance with the support of the State of California with offices located in Glendale and Los Angeles. Other local organizations such as minority and regional chambers provide training and support on how to obtain financing and prepare funding documents.</p>

Source: BBC Research & Consulting.

CHAPTER 8.

Overall DBE Goal

CHAPTER 8.

Overall DBE Goal

As part of its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program, the California Department of Transportation (Caltrans) is required to set an overall goal for DBE participation in its Federal Transit Administration (FTA)-funded contracts. Agencies are required to develop overall DBE goals every three years, but overall DBE goals are *annual* goals in that agencies must monitor DBE participation in their FTA-funded contracts every year. If an agency's DBE participation for a particular year is less than its overall DBE goal for that year, then the agency must analyze the reasons for the difference and establish specific measures that enable it to meet the goal in the next year.

Caltrans must prepare and submit a Goal and Methodology document to FTA that presents its overall DBE goal that is supported by information about the steps that the agency took to develop the goal. Caltrans last developed an overall DBE goal for FTA-funded contracts for federal fiscal years (FFYs) 2017 through 2019, for which the agency established an overall DBE goal of 4.8 percent. Caltrans indicated to FTA that it planned to meet the goal through the use of a combination of race- and gender-neutral and race- and gender-conscious program measures.

Caltrans is required to develop a new goal for FFYs 2020 through 2022. Chapter 8 provides information that Caltrans might consider as part of setting its new overall DBE goal and is organized in two parts based on the two-step goal-setting process that 49 Code of Federal Regulations (CFR) Part 26.45 sets forth:

- A. Establishing a base figure; and
- B. Considering a step-2 adjustment.

A. Establishing a Base Figure

Establishing a base figure is the first step in calculating an overall goal for DBE participation in Caltrans's FTA-funded contracts, including those subrecipient local agencies award and manage. As presented in Chapter 4, *potential DBEs*—that is, minority- and woman-owned businesses that are DBE-certified or appear that they could be DBE-certified based on their ownership and annual revenue limits described in 13 CFR Part 121 and 49 CFR Part 26—might be expected to receive 1.7 percent of Caltrans's FTA-funded prime contract and subcontract dollars based on their availability for that work. Caltrans might consider 1.7 percent as the base figure for its overall DBE goal if it anticipates that the types, sizes, and locations of FTA-funded contracts that the agency awards in the future will be similar to the FTA-funded contracts that it awarded during the study period (i.e., October 1, 2014 through September 30, 2017).

Figure 8-1 presents the professional services and goods and services components of the base figure for Caltrans's overall DBE goal, which are based on the availability of potential DBEs for FTA-funded prime contracts and subcontracts. The overall base figure reflects a weight of 0.02

for professional services contracts and 0.98 for goods and services contracts based on the volume of dollars of FTA-funded contracts that Caltrans and subrecipient local agencies awarded during the study period. If Caltrans expects that the relative distributions of FTA-funded professional services and goods and services contract dollars will change substantially in the future, the agency might consider applying different weights to the corresponding base figure components. Caltrans might also consider evaluating whether the types, sizes, and locations of the FTA-funded contracts that it awards will change substantially in the future.¹

Figure 8-1.
Availability components of the base figure (based on availability of potential DBEs for FTA-funded contracts)

Note:

Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.

See Figures F-17, F-18, and F-19 in Appendix F for corresponding disparity results tables.

Source:

BBC Research & Consulting availability analysis.

Potential DBEs	Availability Percentage		
	Professional Services	Goods and services	Weighted Average
Non-Hispanic white woman owned	10.5 %	1.0 %	1.2 %
Asian Pacific American owned	5.3 %	0.0 %	0.1 %
Black American owned	2.4 %	0.1 %	0.1 %
Hispanic American owned	3.0 %	0.1 %	0.2 %
Native American owned	0.0 %	0.0 %	0.0 %
Subcontinent Asian American owned	1.0 %	0.0 %	0.0 %
Total potential DBEs	22.3 %	1.2 %	1.7 %
Industry weight	2 %	98 %	

B. Considering a Step-2 Adjustment

The Federal DBE Program requires Caltrans to consider a potential step-2 adjustment to its base figure as part of determining its overall DBE goal. Caltrans is not required to make a step-2 adjustment as long as it considers appropriate factors and explains its decision in its Goal and Methodology document. The Federal DBE Program outlines several factors that an agency must consider when assessing whether to make a step-2 adjustment to its base figure:

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years;
2. Information related to employment, self-employment, education, training, and unions;
3. Any disparities in the ability of DBEs to get financing, bonding, and insurance; and
4. Other relevant data.²

BBC Research & Consulting (BBC) completed an analysis of each of the above step-2 factors. Much of the information that BBC examined was not easily quantifiable but is still relevant to Caltrans as it determines whether to make a step-2 adjustment.

¹ Because the vast majority of Caltrans' FTA funds go to different local agencies throughout the state who subsequently use those funds to award contracts using a combination of local, state, and federal funding, Caltrans should consider establishing its next overall DBE goal based only on FTA-funded contracts that it is responsible for awarding and managing.

² 49 CFR Section 26.45.

1. Current capacity of DBEs to perform work on USDOT-assisted contracting as measured by the volume of work DBEs have performed in recent years. USDOT’s “Tips for Goal-Setting” suggests that agencies should examine data on past DBE participation in their USDOT-funded contracts in recent years. BBC examined the participation of certified DBEs in FTA-funded contracts that Caltrans and subrecipient local agencies awarded in FFYs 2015, 2016, and 2017. During that time, certified DBEs received 0.4% of dollars on Caltrans’ FTA-funded contracts. That information supports a downward adjustment to Caltrans’ base figure. If Caltrans uses an approach similar to what USDOT outlines in “Tips for Goals Setting” to adjust its base figure based on past DBE participation, it would take the average of its 1.7% base figure and the 0.4% past DBE participation, yielding an overall DBE goal of 1.05%.

2. Information related to employment, self-employment, education, training, and unions. Chapter 2 summarizes information about conditions in the local contracting industry for minorities; women; and minority- and woman-owned businesses. Additional information about quantitative and qualitative analyses of conditions in the local marketplace are presented in Appendices C and D, respectively. BBC’s analyses indicate that there are barriers that certain minority groups and women face related to human capital, financial capital, business ownership, and business success in the Caltrans study area and contracting industry. Such barriers may decrease the availability of minority- and woman-owned businesses to obtain and perform the FTA-funded contracts that Caltrans and subrecipient local agencies award, which supports an upward adjustment to Caltrans’s base figure.

Although it may not be possible to quantify the effects that barriers in human capital, financial capital, and business success may have on the availability of minority- and woman-owned businesses in the local marketplace, the effects of barriers in business ownership can be quantified. BBC used regression analyses to investigate whether race/ethnicity and gender are related to rates of business ownership among workers in the local contracting industry. The regression analyses allowed BBC to examine those relationships while statistically controlling for various race- and gender-neutral personal characteristics, including education and age. (Chapter 2 and Appendix C provide details about BBC’s regression analyses.) The regression analyses revealed that, even after accounting for various personal characteristics:

- Being Black American, Asian Pacific American, Subcontinent Asian American, or Hispanic American was associated with lower rates of business ownership in the professional services industry. Being a woman was also associated with lower rates of business ownership in the professional services industry; and
- Being Black American or Hispanic American was associated with lower rates of business ownership in the goods and services industry.

BBC analyzed the impact that barriers in business ownership would have on the base figure if the groups of minorities and women that exhibited statistically significant disparities in rates of business ownership owned businesses at the same rate as comparable non-Hispanic white men. The results of that analysis—sometimes referred to as a *but for* analysis, because it estimates the availability of minority- and woman-owned businesses *but for* the effects of race- and gender-based discrimination—are presented in Figure 8-3.

The *but for* analysis included the same contracts that the study team analyzed to determine the base figure (i.e., FTA-funded prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period). The weights for each industry were based on the proportion of FTA-funded contract dollars that Caltrans and subrecipient local agencies awarded in each industry during the study period (i.e., a 0.02 weight for professional services and a 0.98 weight for goods and services). In that way, BBC determined a potential adjustment to Caltrans’s base figure that attempted to account for race- and gender-based barriers in business ownership in the local contracting industry.

The rows and columns of Figure 8-2 present the following:

- a. **Current availability.** Column (a) presents the current availability of potential DBEs by racial/ethnic and gender group and by industry, as also presented in Figure 8-1. Each row presents the percentage availability for each racial/ethnic and gender group. Combined, the current availability of potential DBEs for Caltrans’s FTA-funded contracts is 1.7 percent, as shown in row (19) of column (a).
- b. **Disparity indices for business ownership.** For each group that is significantly less likely than similarly-situated non-Hispanic white men to own professional services and goods and services businesses, BBC simulated business ownership rates if those groups owned businesses at the same rate as non-Hispanic white men who share similar race- and gender-neutral personal characteristics. To simulate business ownership rates if minorities and women owned businesses at the same rate as non-Hispanic white men in a particular industry, BBC took the following steps:
 - 1) BBC performed a probit regression analysis predicting business ownership including only workers who were non-Hispanic white men in the dataset; and
 - 2) BBC then used the coefficients from that model and the mean personal characteristics of individual minority groups (or non-Hispanic white women) working in the industry (i.e., personal characteristics, indicators of educational attainment, and indicators of personal finances) to simulate business ownership for each group.

The study team then calculated a business ownership disparity index for each group by dividing the observed business ownership rate by the simulated business ownership rate and then multiplying the result by 100. Values of less than 100 indicate that, in reality, the group is less likely to own businesses than what would be expected for non-Hispanic white men who share similar personal characteristics. Column (b) presents disparity indices related to business ownership for the different racial/ethnic and gender groups. For example, as shown in row (1) of column (b), non-Hispanic white women own professional services businesses at 74 percent of the rate that they would be expected to own professional services businesses if they were non-Hispanic white men with similar personal characteristics.

Figure 8-2.
Potential step-2 adjustment considering disparities in the rates of business ownership

Industry and group	a. Current availability	b. Disparity index for business ownership	c. Availability after initial adjustment*	d. Availability after scaling to 100%	e. Components of base figure**
Professional services					
(1) Non-Hispanic white woman	10.5 %	74	14.2 %	12.7 %	
(2) Asian Pacific American	5.3 %	53	10.0 %	8.9 %	
(3) Black American	2.4 %	57	4.2 %	3.8 %	
(4) Hispanic American	3.0 %	67	4.5 %	4.0 %	
(5) Native American	0.0 %	n/a	0.0 %	0.0 %	
(6) Subcontinent Asian American	1.0 %	63	1.6 %	1.4 %	
(7) Potential DBEs	22.3 %	n/a	34.5 %	30.7 %	0.7 %
(8) All other businesses ***	77.7 %	n/a	77.7 %	69.3 %	
(9) Total	100.0 %	n/a	112.2 %	100.0 %	
Goods and services					
(10) Non-Hispanic white woman	1.0 %	n/a	1.0 %	1.0 %	
(11) Asian Pacific American	0.0 %	n/a	0.0 %	0.0 %	
(12) Black American	0.1 %	4	2.5 %	2.4 %	
(13) Hispanic American	0.1 %	16	0.6 %	0.6 %	
(14) Native American	0.0 %	n/a	0.0 %	0.0 %	
(15) Subcontinent Asian American	0.0 %	n/a	0.0 %	0.0 %	
(16) Potential DBEs	1.2 %	n/a	4.1 %	4.0 %	3.9 %
(17) All other businesses	98.8 %	n/a	98.8 %	96.0 %	
(18) Total	100.0 %	n/a	102.9 %	100.0 %	
(19) TOTAL	1.7 %	n/a		n/a	4.6 %

Note: Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals due to rounding.

* Initial adjustment is calculated as current availability divided by the disparity index.

** Components of potential step-2 adjustment were calculated as the value after adjustment and scaling to 100 percent, multiplied by the percentage of total FTA-funded contract dollars in each industry (professional services = 0.02 and goods and services = 0.98).

*** All other businesses included majority-owned businesses and minority- and woman-owned businesses that were not potential DBEs.

Source: BBC Research & Consulting.

- c. Availability after initial adjustment.** Column (c) presents availability estimates by racial/ethnic and gender group and by industry after initially adjusting for statistically significant disparities in business ownership rates. BBC calculated those estimates by dividing the current availability in column (a) by the disparity index for business ownership in column (b) and then multiplying by 100. Note that BBC only made adjustments for those groups that are significantly less likely than similarly-situated non-Hispanic white men to own businesses.
- d. Availability after scaling to 100 percent.** Column (d) shows adjusted availability estimates that the study team re-scaled so that the sum of the availability estimates equaled 100 percent for each industry. BBC re-scaled the adjusted availability estimates by taking each group's adjusted availability estimate in column (c) and dividing it by the sum of availability

estimates shown under “Total” in column (c)—in row (9) for professional services and row (18) for goods and services. For example, the scaled availability estimate for non-Hispanic white woman-owned professional services businesses shown in row (1) of column (d) was calculated in the following way: $(14.2\% \div 112.2\%) \times 100 = 12.7$ percent.

- e. **Components of goal.** Column (e) shows the component of the total base figure attributed to the adjusted availability of minority- and woman-owned businesses for each industry. BBC calculated each component by taking the total availability estimate shown under “Potential DBEs” in column (d)—in row (7) for professional services and row (16) for goods and services—and multiplying it by the proportion of total FTA-funded contract dollars for which each industry accounts (i.e., 0.02 for professional services and 0.98 for goods and services). For example, BBC used the 30.7 percent figure shown in row (7) of column (d) for professional services and multiplied it by 0.02 for a result of 0.7 percent (see row (7) of column (e)). The values in column (e) were then summed to equal the overall base figure adjusted for barriers in business ownership—4.6 percent, as shown in the bottom row (19) of column (e).

Based on information related to business ownership alone, Caltrans might consider adjusting the base figure upward to 4.6 percent.

3. Any disparities in the ability of DBEs to get financing, bonding, and insurance.

BBC’s analysis of access to financing, bonding, and insurance also revealed quantitative and qualitative evidence that minorities; women; and minority- and woman-owned businesses in California do not have the same access to those business inputs as non-Hispanic white men and businesses owned by non-Hispanic white men (for details, see Chapter 2 and Appendices C and D). Any barriers to obtaining financing, bonding, and insurance might limit opportunities for minorities and women to successfully form and operate businesses in the California contracting marketplace. Any barriers that minority- and woman-owned businesses face in obtaining financing, bonding, and insurance would also place those businesses at a disadvantage in competing for Caltrans’s FTA-funded prime contracts and subcontracts. Thus, information from the disparity study about financing, bonding, and insurance also supports an upward adjustment to Caltrans’s base figure.

4. Other factors. The Federal DBE Program suggests that federal fund recipients also examine “other factors” when determining whether to make step-2 adjustments to their base figures.³

Success of businesses. There is quantitative evidence that certain groups of minority- and woman-owned businesses are less successful than businesses owned by non-Hispanic white men and face greater barriers in the marketplace, even after accounting for race- and gender-neutral factors. Chapter 2 summarizes that evidence and Appendix C presents corresponding quantitative analyses. There is also qualitative evidence of barriers to the success of minority- and woman-owned businesses, as presented in Appendix D. Some of that information suggests that discrimination on the basis of race/ethnicity and gender adversely affects minority- and

³ 49 CFR Section 26.45.

woman-owned businesses in the local contracting industry. Thus, information about the success of businesses also supports an upward adjustment to Caltrans's base figure.

Evidence from disparity studies conducted within the jurisdiction. USDOT suggests that federal aid recipients also examine evidence from disparity studies conducted within their jurisdictions when determining whether to make adjustments to their base figures. Caltrans should review results from those disparity studies—for example disparity studies that BBC has conducted for Caltrans, the Los Angeles County Metropolitan Transportation Authority, and the San Diego Association of Governments—when determining its overall DBE goal. However, Caltrans should note that the results of those studies are tailored specifically to the contracts and policies of each agency. Those contracts and policies may differ in many important respects from those of Caltrans.

Summary. Taken together, the quantitative and qualitative evidence that the study team collected as part of the disparity study may support an adjustment to the base figure as Caltrans considers setting its overall DBE goal. Based on information from the disparity study, there are reasons why Caltrans might consider an adjustment to its base figure:

- Caltrans might adjust its base figure upward to account for barriers that minorities and women face in human capital and owning businesses in the local contracting industry. Such an adjustment would correspond to a “determination of the level of DBE participation you would expect absent the effects of discrimination.”⁴
- Evidence of barriers that affect minorities; women; and minority- and woman-owned businesses in obtaining financing, bonding, and insurance, and evidence that certain groups of minority- and woman-owned businesses are less successful than comparable businesses owned by non-Hispanic white men also supports an upward adjustment to Caltrans's base figure.
- Caltrans must consider the volume of work DBEs have performed in recent years when determining whether to make an adjustment to its base figure. BBC's analyses for FFYs 2015 through 2017 indicated DBE participation of 0.4 percent for those years, which is lower than the base figure. If Caltrans were to adjust its base figure based on DBE participation information from the agency's utilization reports, it might consider taking the average of its base figure and the 0.4 percent DBE utilization.

USDOT regulations clearly state that an agency such as Caltrans is required to review a broad range of information when considering whether it is necessary to make a step-2 adjustment—either upward or downward—to its base figure. However, *Tips for Goal-Setting* states that an agency such as Caltrans is not required to make an adjustment as long as it can explain what factors it considered and can explain its decision in its Goal and Methodology document.

⁴ 49 CFR Section 26.45 (b).

CHAPTER 9.

Program Implementation

CHAPTER 9.

Program Implementation

Chapter 9 reviews information relevant to the California Department of Transportation’s (Caltrans) implementation of specific components of the Federal Disadvantaged Business Enterprise (DBE) Program for Federal Transit Administration (FTA)-funded contracts as well as considerations that Caltrans could consider making to refine its implementation of the program.

A. Federal DBE Program

Regulations presented in 49 Code of Federal regulations (CFR) Part 26 and associated documents offer agencies guidance related to implementing the Federal DBE Program. Key requirements of the program are described below in the order that they are presented in 49 CFR Part 26.¹

Reporting to DOT – 49 CFR Part 26.11 (b). Caltrans must periodically report DBE participation in its FTA-funded contracts to the United States Department of Transportation (USDOT). Caltrans requires subrecipient local agencies to submit *Uniform Reports of DBE Awards or Commitments and Payments* that detail the participation of DBEs in FTA-funded projects. Caltrans compiles the information from those reports and submits it to USDOT twice each year. Caltrans plans to continue to collect and report that information in the future using the same approach.

Bidders list – 49 CFR Part 26.11 (c). As part of its implementation of the Federal DBE Program, Caltrans must develop a bidders list of businesses that are available for its contracts. The bidders list must include the following information about each available business:

- Firm name;
- Address;
- DBE status;
- Age of firm; and
- Annual gross receipts.

Caltrans currently maintains a bidders list that includes all of the above information for businesses bidding or proposing on the agency’s federally-funded prime contracts and subcontracts. Caltrans should review whether subrecipient local agencies are consistently collecting the above information about prime contractors and subcontractors that bid on projects funded with passthrough funds from Caltrans.

Information from availability surveys. As part of the availability analysis, the study team collected information about local businesses that are potentially available for different types of Caltrans prime contracts and subcontracts, including those managed by subrecipient local agencies. Caltrans should consider using that information to augment its current bidders list.

¹ Because only certain portions of the Federal DBE Program are discussed in Chapter 9, Caltrans should refer to the complete federal regulations when considering its implementation of the program.

Maintaining comprehensive vendor data. In order to effectively track the participation of minority- and woman-owned businesses in its contracts, Caltrans should consider continuing to improve the information that it collects on the ownership status of businesses that participate in its contracts, including both prime contracts and subcontracts. Not only should Caltrans consider collecting information about DBE status, but it should also consider obtaining information on the race/ethnicity and gender of business owners regardless of certification status. Caltrans should also consider collecting that information from subrecipient local agencies. As appropriate, Caltrans can use business information that the study team collected as part of the disparity study to augment its vendor data.

Prompt payment mechanisms – 49 CFR Part 26.29. Caltrans’s prompt payment policies appear to comply with 49 CFR Part 26.29. Caltrans must pay a prime contractor no more than 30 days after the agency’s receipt of a properly completed invoice. Prime contractors are required to pay their subcontractors no later than 7 days after receiving payment from Caltrans. Qualitative information that the study team collected through in-depth interviews indicated that some businesses are dissatisfied with how promptly they receive payments on public-sector contracts in general. Several businesses indicated that slow payments make it particularly difficult for small businesses to maintain adequate cash flow. Caltrans should consider maintaining the efforts it and subrecipient agencies make to ensure prompt payment to both prime contractors and subcontractors.

DBE directory – 49 CFR Part 26.31. Caltrans maintains a current list of firms certified as DBEs through the California Unified Certification Program (CUCP). The CUCP DBE directory is available on Caltrans’s website and lists all DBE-certified businesses by business name, industry code, and work type. Qualitative information that the study team collected through in-depth interviews indicated that some business owners felt that prime contractors typically work with subcontractors with which they have a previous relationship rather than using the DBE directory to seek out new subcontractors. Caltrans should continue to promote the DBE directory to prime contractors so they can continue to be aware of qualified DBE subcontractors.

Overconcentration – 49 CFR Part 26.33. Agencies implementing the Federal DBE Program are required to report and take corrective measures if they find that DBEs are so overconcentrated in certain work areas as to unduly burden non-DBEs working in those areas. Such measures may include:

- Developing ways to assist DBEs to move into nontraditional areas of work;
- Varying the use of DBE contract goals; and
- Working with contractors to find and use DBEs in other industry areas.

BBC examined potential overconcentration on Caltrans and subrecipient local agency contracts and identified one subindustry—other professional services—in which certified DBEs accounted for 60 percent of the total subcontract dollars awarded in that the subindustry during the study period.² That value is based only on subcontract dollars, so it does not include work that prime contractors

² “Other professional services” includes marketing and public relations services.

self-performed in that area. If the study team had included self-performed work in that analysis, the percentage for which DBEs accounted would likely have decreased.

Caltrans should consider reviewing similar information and continuing to monitor other professional services and other work specializations for potential overconcentration in the future. Doing so might entail collecting data on subcontractor participation and prime contractor self-performance in each relevant work specialization. USDOT provides the following recommendations for agencies to address over concentration:

If a recipient finds an area of overconcentration, it would have to devise means of addressing the problem that work in their local situations. Possible means of dealing with the problem could include assisting prime contractors to find DBEs in non-traditional fields or varying the use of contract goals to lessen any burden on particular types of non-DBE specialty contractors. While recipients would have to obtain DOT approval of determinations of overconcentration and measures for dealing with them, the Department is not prescribing any specific mechanisms for doing so.³

Business development programs (BDPs)— 49 CFR Part 26.35 and mentor-protégé programs – 49 CFR Appendix D to Part 26. BDPs are programs that are designed to assist DBE-certified businesses in developing the capabilities to compete for work independent of the Federal DBE Program. As part of a BDP, or separately, agencies may establish a mentor-protégé program, in which a non-DBE or another DBE serves as a mentor and principal source of business development assistance to a protégé DBE. Caltrans offers the Calmentor Program for small engineering businesses and the Mentor-Protégé” Program for small construction businesses. Those programs provide small businesses—including DBEs—with opportunities to participate in mentor-protégé relationships with larger, more successful businesses working in similar industries. Qualitative information that the study team collected revealed that some business owners had participated in Caltrans’s mentor-protégé programs. Although some participants found the programs to be helpful, others indicated that they had not been successfully matched with a mentor or that their mentor was non-responsive.

Caltrans should continue to engage not only small businesses and DBEs but potential mentor businesses to encourage their active participation in the agency’s mentor-protégé programs. Caltrans could also consider expanding its mentor-protégé programs to include businesses that provide goods and services. Such an expansion could benefit DBEs working in industries specifically related to Caltrans’s transit-related contracting opportunities. Caltrans should also continue to communicate with certified DBEs to ensure that its BDPs provide the most relevant specialized assistance that is tailored to the needs of developing businesses in the California marketplace. Caltrans might also explore additional partnerships to implement other BDPs.

Responsibilities for monitoring the performance of program participants – 49 CFR Part 26.37 and 49 CFR Part 26.55. The Final Rule effective February 28, 2011, revised requirements for monitoring the work that prime contractors commit to DBE subcontractors at contract award (or through contract modifications) and enforcing that those DBEs actually perform that work. USDOT describes those requirements in 49 CFR Part 26.37(b). The Final Rule states that

³ 64 F.R. 5106 (February 2, 1999)

prime contractors can only terminate DBEs for “good cause” and with written consent from the awarding agency. In addition, 49 CFR Part 26.55 requires agencies to only count the participation of DBEs that are performing commercially useful functions on contracts toward meeting DBE contract goals and overall DBE goals.

To monitor the performance of DBEs, Caltrans has established extensive monitoring mechanisms. Caltrans’s District Transit Representatives conduct compliance reviews of subrecipient local agencies to ensure that they are appropriately implementing oversight practices and reviewing reimbursement requests for DBE payments. Caltrans also reports information about DBE commitments and attainments in its *Uniform Report of DBE Commitments/Awards and Payments* to FTA. Caltrans should consider reviewing the requirements set forth in 49 CFR Part 26.37(b), 49 CFR Part 26.55, and in The Final Rule to ensure that its monitoring and enforcement mechanisms are appropriately implemented and consistent with federal regulations and best practices.

Fostering small business participation – 49 CFR Part 26.39. As part of implementing the Federal DBE Program, Caltrans must include measures to facilitate small business competition, “taking all reasonable steps to eliminate obstacles to their participation, including unnecessary and unjustified bundling of contract requirements that may preclude small business participation in procurements as prime contractors or subcontractors.”⁴ The Final Rule effective February 28, 2011 added a requirement for agencies to submit a plan for fostering small business participation in their contracting. USDOT identifies the following potential strategies for fostering small business participation:

- Establishing a race- and gender-neutral small business set-aside for prime contracts worth less than a particular amount (e.g., \$1 million);
- Identifying alternative acquisition strategies and structuring procurements to facilitate the ability of consortia or joint ventures consisting of small businesses, including DBEs, to compete for and perform prime contracts; and
- Unbundling large contracts to allow small businesses more opportunities to bid for smaller contracts.

In order to facilitate small business participation, Caltrans implements a number of efforts, including:

- Working with small businesses to help them better understand contracting and procurement opportunities with the agency;
- Encouraging prime contractors and individual departments to use small businesses on contracts;
- Encouraging small businesses—including many minority- and woman-owned businesses—to pursue relevant business certifications;
- Hosting and participating in forums, business development meetings, and other events that are intended to increase contracting opportunities for small businesses; and

⁴ 49 CFR Part 26.39(a).

- Creating the Small Business Council to promote the effective implementation of federal and state requirements and assist with issues relating to small business participation.

Chapter 7 of the report provides examples of various small business program measures that Caltrans and other organizations in California currently use and measures that Caltrans could consider using in the future.

Prohibition of DBE quotas and set-asides for DBEs unless in limited and extreme circumstances – 49 CFR Part 26.43. DBE quotas are prohibited under the Federal DBE Program, and DBE set-asides can only be used in extreme circumstances. Caltrans does not currently use DBE quotas or set-asides as part of its implementation of the Federal DBE Program.

Setting overall DBE goals – 49 CFR Part 26.45. Agencies must develop and submit overall DBE goals every three years. Chapter 8 uses data and results from the disparity study to provide Caltrans with information that could be useful in developing its next overall DBE goal.

Analysis of reasons for not meeting overall DBE goal – 49 CFR Part 26.47(c). Based on information about awards and commitments to DBE-certified businesses, Caltrans met its FTA DBE goal in federal fiscal years (FFY) 2015 and 2017 but not in 2016. In FFY 2016, DBE awards and commitments on FTA-funded contracts were below Caltrans’s overall DBE goal by 1.2 percentage points. Agencies are required to take the following actions if their DBE participation for a particular fiscal year is less than their overall DBE goal for that year:

- Analyze the reasons for the difference in detail; and
- Establish specific steps and milestones to address the difference and enable the agency to meet the goal in the next fiscal year.

Need for separate accounting for participation of potential DBEs. In accordance with guidance in the Federal DBE Program, BBC’s analysis of the overall DBE goal in the disparity study includes DBEs that are currently certified and minority- and woman-owned businesses that could *potentially* be DBE-certified based on revenue standards (i.e., *potential DBEs*).⁵ Agencies can explore whether one reason why they have not met their overall DBE goals is because they are not counting the participation of potential DBEs. USDOT might then expect an agency to explore ways to further encourage potential DBEs to become DBE-certified as one way of closing the gap between reported DBE participation and its overall DBE goal. In order to have the information to explore that possibility, Caltrans should consider:

- Developing a system to collect information on the race/ethnicity and gender of the owners of all businesses—not just certified DBEs—participating as prime contractors or subcontractors in USDOT-funded contracts;
- Developing internal reports for the participation of all minority- and woman-owned businesses (based on race/ethnicity and gender of ownership; annual revenue; and other

⁵ Note that minority- and woman-owned businesses that could be DBE-certified but that are not currently certified are counted as part of calculating the overall DBE goal. However, their participation is not counted as part of Caltrans’s DBE participation reports to USDOT.

factors such as whether the business has been denied DBE certification in the past) in USDOT-funded contracts; and

- Continuing to track participation of certified DBEs in USDOT-funded contracts, per reporting requirements.

Other steps to evaluate how Caltrans might better meet its overall DBE goal. Analyzing the participation of potential DBEs is one step among many that Caltrans might consider taking when examining any differences between DBE participation and its overall DBE goal. Based on a comprehensive review, Caltrans must establish specific steps and milestones to correct any problems it identifies to enable it to continue to meet its overall DBE goal in the future.⁶

Maximum feasible portion of goal met through neutral program measures – 49 CFR Part 26.51(a). Caltrans must meet the maximum feasible portion of its overall DBE goal through the use of race- and gender-neutral program measures. Caltrans must project the portion of its overall DBE goal that it anticipates achieving through the use such measures. The agency should consider information presented in the disparity study, information about past DBE attainment, and other information when making such projections.

Use of DBE contract goals – 49 CFR Part 26.51(d). The Federal DBE Program requires agencies to use race- and gender-conscious measures—such as DBE contract goals—to meet any portion of their overall DBE goals that they do not project being able to meet using race- and gender-neutral measures. Based on information from the disparity study and other available information, Caltrans should assess whether to apply DBE contract goals in the future to meet any portion of its overall DBE goal. USDOT guidelines on the use of DBE contract goals, which are presented in 49 CFR Part 26.51(e), include the following guidance:

- DBE contract goals may only be used on contracts that have subcontracting possibilities;
- Agencies are not required to set DBE contract goals on every USDOT-funded contract;
- During the period covered by the overall DBE goal, an agency must set DBE contract goals so that they will cumulatively result in meeting the portion of the overall DBE goal that the agency projects being unable to meet through race- and gender-neutral measures;
- An agency's DBE contract goals must provide for participation by all DBE groups eligible to participate in race- and gender-conscious measures and must not be subdivided into group-specific goals; and
- An agency must maintain and report data on DBE participation separately for contracts that include and do not include DBE contract goals.

If Caltrans determines that it should apply DBE contract goals to USDOT-funded projects, then it should also evaluate which DBE groups should be considered eligible for those goals. If Caltrans decides to consider only certain DBE groups (e.g., groups that Caltrans determines to be

⁶ 49 CFR Part 26.47(c)(2).

underutilized DBEs) as eligible to participate in DBE contract goals, it must submit a waiver request to FTA.⁷

Several individuals participating in in-depth interviews and public meetings made comments related to the use of race- and gender-conscious measures such as DBE contract goals:

- Several minority- and woman-owned businesses commented that race- and gender-conscious measures have had positive impacts on their businesses and help to “level the playing field.” A number of minority- and woman-owned businesses underlined that such measures have opened the door to greater opportunity for their businesses and help their businesses become known in the marketplace.
- Several interviewees indicated that public agencies, including Caltrans, could do more to actively monitor and enforce the Federal DBE program. A number of business owners emphasized the need for increased oversight to ensure the appropriate use of good faith efforts, monitor business participation, and identify fraudulent businesses.

Caltrans should consider those comments if it determines that it is appropriate to use DBE contract goals on USDOT-funded contracts in the future.

Flexible use of any race- and gender-conscious measures – 49 CFR Part 26.51(f).

Agencies must exercise flexibility in any use of race- and gender-conscious measures such as DBE contract goals. For example, if Caltrans determines that DBE participation exceeds its overall DBE goal for a fiscal year, it must reduce its use of DBE contract goals to the extent necessary. If it determines that it will fall short of the overall DBE goal in a fiscal year, then it must make appropriate modifications to its use of race- and gender-neutral and race- and gender-conscious measures to allow it to meet its overall DBE goal in the following year. If Caltrans observes increased DBE participation (relative to availability) on contracts to which race- and gender-conscious measures do not apply, the agency might consider changing its projection of how much of its overall DBE goal it can achieve through the use of race- and gender-neutral measures in the future.

Good faith efforts procedures – 49 CFR Part 26.53. USDOT has provided guidance for agencies to review good faith efforts, including materials in Appendix A of 49 CFR Part 26. Caltrans’s current implementation of the Federal DBE Program outlines the good faith efforts process that it uses for DBE contract goals. The DBE Program Implementation Modifications Final Rule issued on October 2, 2014 updated requirements for good faith efforts when agencies use DBE contract goals. Caltrans should review 49 CFR Part 26.53 and The Final Rule to ensure that its good faith efforts procedures are consistent with federal regulations. Caltrans requires prime contractors to submit good faith efforts documentation and written confirmation in the event that bidders’ efforts to include sufficient DBE participation are unsuccessful. In deciding whether to

⁷ *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006) This case out of the Ninth Circuit struck down a state’s implementation of the Federal DBE Program for failure to pass constitutional muster. In *Western States Paving*, the Ninth Circuit held that the State of Washington’s implementation of the Federal DBE Program was unconstitutional because it did not satisfy the narrow tailoring element of the constitutional test. The Ninth Circuit held that the State must present its own evidence of past discrimination within its own boundaries in order to survive constitutional muster and could not merely rely upon data supplied by Congress. The United States Supreme Court denied certiorari. The analysis in the decision also is instructive in particular as to the application of the narrowly tailored prong of the strict scrutiny test.

accept good faith efforts, Caltrans considers the quality, quantity, and extent of the different kinds of efforts that bidders made. Caltrans determines whether efforts are those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet a contract goal. Caltrans does not accept perfunctory efforts as good faith efforts. Individual Caltrans departments have the discretion to assess the sufficiency of bidders' good faith efforts.

Several individuals participating in in-depth interviews and public meetings made comments related to good faith efforts. In general, minority- and woman-owned businesses indicated that prime contractors often fail to make genuine efforts to use minority- and woman-owned businesses.

- Some participants indicated that good faith efforts procedures are not meaningfully enforced or that requirements appear to vary across regions of the state.
- Several participants indicated that the Federal DBE Program does not require prime contractors to make anything more than perfunctory good faith efforts in order to comply with the program. A number of business owners noted that primes will reach out to prospective DBEs but not follow through to seek meaningful participation on projects.

Caltrans might review such concerns further when evaluating ways to improve its current implementation of the Federal DBE Program. It should also review legal issues, including state contracting laws and whether certain program options would meet USDOT regulations.

Counting DBE participation – 49 CFR Part 26.55. 49 CFR Part 26.55 describes how agencies should count DBE participation and evaluate whether bidders have met DBE contract goals. Federal regulations also give specific guidance for counting the participation of different types of DBE suppliers and trucking companies. Section 26.11 discusses the Uniform Report of DBE Awards or Commitments and Payments. Caltrans currently tracks participation for certified DBEs but not for uncertified minority- and woman-owned businesses. As discussed above, in addition to tracking the participation of certified DBEs, Caltrans should consider developing procedures to consistently track participation of all minority- and woman-owned businesses and potential DBEs in the contracts that it and subrecipient local agencies award. Those efforts will help the agency better track the effectiveness of its efforts to encourage DBE participation and businesses that could become DBE certified in the future. If applicable, Caltrans should also consider collecting important information regarding any shortfalls in annual DBE participation, including preparing participation reports for all minority- and woman-owned businesses (not only those that are DBE-certified). Caltrans should consider collecting and using the following information consistently for Caltrans and subrecipient local agency contracts:

- Contractor/consultant registration documents from businesses working as prime contractors or subcontractors including information about the race/ethnicity and gender of their owners;
- Prime contractor and subcontractor participation;
- Reports of DBE participation in FTA-funded contracts as required by the Federal DBE Program;
- Payment data for prime contractors and subcontractors;

- Subcontractor participation data (for all tiers and suppliers) for all businesses regardless of race/ethnicity, gender, or certification status;
- Descriptions of the areas of contracts on which subcontractors worked; and
- Subcontractors' contact information and committed dollar amounts from prime contractors at the time of contract award.

Caltrans should consider maintaining the above information for some minimum amount of time (e.g., five years) and establishing a training process for all staff—including key subrecipient local agency staff—that is responsible for managing and entering and managing contract and vendor data. Training should convey data entry rules and standards and ensure consistency in the data entry process.

DBE certification – 49 CFR Part 26 Subpart D. Caltrans is one of the certifying agency members of CUCP, which is responsible for all DBE certifications in California. The CUCP certification process is designed to comply with 49 CFR Part 26 Subpart D. As Caltrans continues to work with DBE-certified businesses, the agency should consider ensuring that CUCP continues to certify all groups that the Federal DBE Program presumes to be socially and economically disadvantaged in a manner that is consistent with federal regulations.

Many business owners and managers participating in in-depth interviews and public hearings commented on the DBE certification process. Many business owners felt that certification was highly valuable, but commented on the length, complexity, and cost of the certification process. Some business owners were highly critical of the certification process. Several business owners reported that the process was difficult to understand; required lots of paperwork and sensitive information; and was very time consuming. Appendix D provides other perceptions of business owners that have considered DBE certification or that have gone through the certification process. Caltrans appears to follow federal regulations concerning DBE certification, which requires collecting and reviewing considerable information from program applicants. However, Caltrans might research other ways to make the certification process easier for potential DBEs.

Monitoring changes to the Federal DBE Program. Federal regulations related to the Federal DBE Program change periodically, such as with the DBE Program Implementation Modifications Final Rule issued on October 2, 2014 and the Final Rule issued on February 28, 2011. Caltrans should continue to monitor such developments and ensure that the agency's implementation of the Federal DBE Program is in compliance with federal regulations. Other transportation agencies' implementations of the Federal DBE Program are under review in federal district courts. Caltrans should monitor court decisions in those and other relevant cases (for details see Appendix B).

B. Additional Considerations

Based on disparity study results and the study team's review of Caltrans's contracting practices and program measures, BBC provides additional considerations that the agency should make as it works to refine its compliance with the Federal DBE Program. In making those considerations, Caltrans should assess whether additional resources or changes in state law or internal policy may be required.

Networking and outreach. Caltrans hosts and participates in many networking and outreach events that include information about marketing; DBE certification; doing business with the agency; and available bid opportunities. Qualitative information collected as part of in-depth interviews indicated that most businesses are aware of Caltrans’s networking and outreach events but that many of them do not participate in them because of the time it takes to do so. Some participants indicated that such events were of little value or do not cover topics relevant to their business activities. Caltrans should consider continuing those efforts but might also consider engaging the contracting community to better understand how it can facilitate events that directly address businesses’ needs. Caltrans should also consider broadening its efforts to include more partnerships with local trade organizations and other public agencies.

Contract and subcontract data. Caltrans maintains some data on contracts and subcontracts that are associated with the FTA-funded projects that it awards, but subrecipient local agencies collect and report those data inconsistently. Caltrans should consider ensuring that it is collecting comprehensive contract and subcontract data on all contracts and projects, including those contracts that subrecipient local agencies award and manage. Caltrans should consider collecting information about amounts committed to all prime contractors and subcontractors along with contact and business information about vendors. In addition, Caltrans should consider requiring prime contractors to submit subcontractor payment data as part of the invoicing process and as a condition of receiving payment. Collecting subcontractor payment information will help ensure that Caltrans monitors the participation of minority- and woman-owned businesses for all projects appropriately.

Subrecipient training and monitoring. Caltrans recently began implementing a monitoring program to ensure that subrecipient local agencies are appropriately implementing the Federal DBE Program. Caltrans District Transit Representatives conduct compliance reviews of subrecipient local agencies to ensure that local agencies are properly implementing management and oversight practices. Caltrans should continue those efforts and determine whether additional training is required to ensure that subrecipient local agencies understand how to implement all aspects of the Federal DBE program. Caltrans might consider additional training related to:

- Reviewing standard agreements and memorandums of understanding between Caltrans and subrecipient local agencies;
- Collecting consistent and comprehensive contract and vendor data;
- Enforcing good faith efforts;
- Identifying opportunities to unbundle relatively large contracts;
- Monitoring business participation on relevant contracts and procurements; and
- Reporting required information to Caltrans to help the agency comply with the Federal DBE Program.

Caltrans should consider engaging subrecipient local agencies to identify additional areas in which training might be appropriate.

Unbundling large contracts. In general, minority- and woman-owned businesses exhibited reduced availability for relatively large contracts that Caltrans and subrecipient local agencies

awarded during the study period. In addition, as part of in-depth interviews, several minority- and woman-owned businesses reported that the size of government contracts often serves as a barrier to their success and indicated that unbundling contracts into smaller pieces would provide more opportunities for small businesses to bid on Caltrans contracts (for details, see Appendix D). To further encourage the participation of small businesses—including many minority- and woman-owned businesses—Caltrans should consider making efforts to unbundle relatively large contracts into several smaller contracts. Unbundling contracts would likely result in that work being more accessible to small businesses, which in turn might increase opportunities for minority- and woman-owned businesses and result in greater minority- and woman-owned business participation. The vast majority of Caltrans’s FTA-funded contracts are managed by subrecipient local agencies, so an important step in unbundling contracts would be to work with those agencies to identify opportunities to do so.

Prime contract opportunities. Minority- and woman-owned businesses exhibited increased availability for relatively small contracts—including small prime contracts—that Caltrans and subrecipient local agencies awarded during the study period. Disparity analysis results also indicated substantial disparities for minority- and woman-owned businesses overall and for various racial/ethnic and gender groups on relatively small prime contracts that Caltrans and subrecipient local agencies awarded during the study period. Caltrans could consider implementing a small-business set-aside program to encourage the participation of small businesses—including many minority- and woman-owned businesses—as prime contractors. In doing so, Caltrans might reserve bid opportunities of a certain size (e.g., \$250,000 or less) for small businesses. Small business set-aside opportunities would be open to all small businesses, regardless of the race/ethnicity and gender of the businesses’ owners. Caltrans should review federal and state regulations related to such measures if the agency considers implementing a small business set-aside program.

Subcontract opportunities. Subcontracts represent accessible opportunities for minority- and woman-owned businesses to become involved in public contracting. However, subcontracting accounted for a relatively small percentage of the total contracting dollars that Caltrans and subrecipient local agencies awarded during the study period. Caltrans could consider implementing a program that requires prime contractors to include certain levels of subcontracting as part of their bids and proposals, regardless of the race/ethnicity or gender of subcontractor owners. For each contract to which the program would apply, Caltrans would set a minimum subcontracting percentage based on the type of work involved, the size of the project, and other factors. Prime contractors bidding on the contract would be required to subcontract a percentage of the work equal to or exceeding the minimum for their bids to be responsive. If Caltrans were to implement such a program, it should include flexibility provisions similar to good faith efforts processes that would require prime contractors to document their efforts to identify and include potential subcontractors in their proposals for Caltrans contracts. Caltrans should develop clear guidelines to determine whether contractors are making good faith efforts to meet the minimum subcontracting requirement.

APPENDIX A.

Definitions of Terms

APPENDIX A.

Definitions of Terms

Appendix A defines terms that are useful to understanding the 2019 California Department of Transportation Federal Transit Administration (FTA) Disparity Study report. The following definitions are only relevant in the context of this report.

49 Code of Federal Regulations (CFR) Part 26

49 CFR Part 26 are the federal regulations that set forth the Federal Disadvantaged Business Enterprise Program. The objectives of 49 CFR Part 26 are to:

- (a) Ensure nondiscrimination in the award and administration of United States Department of Transportation-assisted contracts;
- (b) Create a level playing field on which Disadvantaged Business Enterprises can compete fairly for United States Department of Transportation-assisted contracts;
- (c) Ensure that the Federal Disadvantaged Business Enterprise Program is narrowly tailored in accordance with applicable law;
- (d) Ensure that only businesses that fully meet eligibility standards are permitted to participate as Disadvantaged Business Enterprises;
- (e) Help remove barriers to the participation of Disadvantaged Business Enterprises in United States Department of Transportation-assisted contracts;
- (f) Promote the use of Disadvantaged Business Enterprises in all types of federally-assisted contracts and procurements;
- (g) Assist in the development of businesses so that they can compete outside of the Federal Disadvantaged Business Enterprise Program; and
- (h) Provide appropriate flexibility to agencies implementing the Federal Disadvantaged Business Enterprise Program.

Anecdotal Information

Anecdotal information includes personal, qualitative accounts and perceptions of specific incidents—including any incidents of discrimination—told from interviewees' or participants' perspectives.

Availability Analysis

An availability analysis assesses the percentage of dollars that one might expect a specific group of businesses to receive on contracts that a particular agency awards. The availability analysis in this report is based on various characteristics of potentially available businesses in California and contract elements that the California Department of Transportation awarded during the study period.

Business

A business is a for-profit company, including all of its establishments or locations.

Business Listing

A business listing is a record in a database of business information.

Business Establishment

A business establishment is a place of business with an address and a working phone number. A single business, or firm, can have many business establishments, or locations.

California Department of Transportation (Caltrans)

Caltrans is responsible for the planning, construction, operation, and maintenance of the transportation system throughout California, including highways and bridges; airports; public transit; rail freight; and rail passenger systems. It also operates the California Unified Certification Program and is responsible for DBE certification throughout the state.

California Unified Certification Program (CUCP)

The CUCP—of which Caltrans is a member—is a certification program for the Federal Disadvantaged Business Enterprise (DBE) Program in California. Minority- and woman-owned businesses desiring to become certified as DBEs must submit an application and a personal net worth statement (PNW) to one of the certifying agencies within the state.

Compelling Governmental Interest

As part of the strict scrutiny legal standard, an agency must demonstrate a compelling governmental interest in remedying past identified discrimination in order to implement race- or gender-conscious measures. An agency that uses race- or gender-conscious measures as part of a minority- or woman-owned business program—such as the Federal Disadvantaged Business Enterprise Program—has the initial burden of showing evidence of discrimination—including statistical and anecdotal evidence—that supports the use of such measures. The agency must assess discrimination within its own relevant geographic market areas.

Consultant

A consultant is a business performing a professional services contract.

Contract

A contract is a legally-binding relationship between the seller of goods or services and a buyer. The study team often treats the term “contract” synonymously with “procurement.”

Contract Element

A contract element is either a prime contract or subcontract.

Control

Control means exercising management and executive authority of a business.

Custom Census

A custom census availability analysis is one in which researchers attempt extensive surveys with all potentially available businesses working in the local marketplace to collect information about key business characteristics. Researchers then take survey information about potentially available businesses and match them to the characteristics of prime contracts and subcontracts that an agency actually awarded during the study period. A custom census availability approach is accepted in the industry as the platinum standard for conducting availability analyses, because it takes several different factors into account, including businesses' primary lines of work and their capacity to perform on an agency's contracts.

Disadvantaged Business Enterprise (DBE)

A DBE is a business that is owned and controlled by one or more individuals who are socially and economically disadvantaged according to the guidelines in 49 CFR Part 26, which pertains to the Federal DBE Program. DBEs must be certified as such through Caltrans. The following groups are presumed to be socially and economically disadvantaged according to the Federal DBE Program:

- a) Asian Pacific Americans;
- b) Black Americans;
- c) Hispanic Americans;
- d) Native Americans;
- e) Subcontinent Asian Americans; and
- f) Women of any race or ethnicity.

A determination of economic disadvantage also includes assessing business' gross revenues (maximum revenue limits ranging from \$7 million to \$24.1 million depending on subindustry) and business owners' personal net worth (maximum of \$1.32 million excluding equity in a home and in the business). Some minority- and woman-owned businesses do not qualify as DBEs because of gross revenue or net worth requirements. Businesses owned by non-Hispanic white men can also be certified as DBEs if those businesses meet the economic requirements in 49 CFR Part 26.

Disparity

A disparity is a difference or gap between an actual outcome and some benchmark. In this report, the term "disparity" refers to a difference between the participation, or utilization, of a specific group of businesses in Caltrans contracting and the availability of those businesses for that work.

Disparity Analysis

A disparity analysis examines whether there are any differences between the participation, or utilization, of a specific group of businesses in Caltrans contracting and the availability of those businesses for that work.

Disparity Index

A disparity index is computed by dividing the actual participation, or utilization, of a specific group of businesses in Caltrans contracting by the availability of those businesses for that work and multiplying the result by 100. Smaller disparity indices indicate larger disparities.

Division of Rail and Mass Transportation (DRMT)

DRMT is the division of Caltrans that is responsible for administering and managing state and federal transit and rail grant programs that provide funding for operating assistance, capital improvements, and equipment to public transportation agencies throughout California. It manages the Section 5310 – Elderly and Disabled Program, the Section 5311 – Rural Transit Assistance Program; and the Section 5339 – Bus and Bus Related Equipment Program.

Division of Transportation Planning (DOTP)

DOTP implements statewide transportation policy through partnerships with state, regional, and local agencies. It provides planning products, services, and information to support and guide transportation investment decisions. It also manages the Section 5303 – Metropolitan Planning Program and the Section 5304 – Statewide Planning Program.

Dun & Bradstreet (D&B)

D&B is the leading global provider of lists of business establishments and other business information for specific industries within specific geographical areas (for details, see www.dnb.com).

Enterprise

An enterprise is an economic unit that could be a for-profit business or business establishment; a nonprofit organization; or a public sector organization.

Federal DBE Program

The Federal DBE Program was 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. Regulations for the Federal DBE Program are set forth in 49 CFR Part 26. It is designed to increase the participation of minority- and woman-owned businesses in United States Department of Transportation-funded contracts.

Federally-funded Contract

A federally-funded contract is any contract or project funded in whole or in part with United States Department of Transportation financial assistance, including loans. In this study, the study team uses the term “federally-funded contract” synonymously with “United States Department of Transportation-funded contract” or “Federal Transit Authority-funded contract.”

Federal Transit Administration (FTA)

The FTA is an agency of the United States Department of Transportation that provides financial and technical assistance to local public transit systems, including buses, subways, light rail,

commuter rail, trolleys, and ferries. FTA also oversees related safety measures and helps develop next-generation technology research.

Firm

See “business.”

Industry

An industry is a broad classification for businesses providing related goods or services (e.g., *professional services* or *goods and services*).

Majority-owned Business

A majority-owned business is a for-profit business that is owned and controlled by non-Hispanic white men.

Minority

A minority is an individual who identifies with one of the racial/ethnic groups specified in the Federal DBE Program: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, or Subcontinent Asian Americans.

Minority-owned Business

A minority-owned business is a business with at least 51 percent ownership and control by individuals who identify themselves with one of the racial/ethnic groups that the Federal DBE Program presumes to be socially and economically disadvantaged: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, or Subcontinent Asian Americans. A business does not have to be certified as a DBE to be considered a minority-owned business. The study team considers businesses owned by minority women as minority-owned businesses.

Narrow Tailoring

As part of the strict scrutiny legal standard, an agency must demonstrate that its use of race- and gender-conscious measures is narrowly tailored. There are a number of factors that a court considers when determining whether the use of such measures is narrowly tailored, including:

- a) The necessity of such measures and the efficacy of alternative, race- and gender-neutral measures;
- b) The degree to which the use of such measures is limited to those groups that actually suffer discrimination in the local marketplace;
- c) The degree to which the use of such measures is flexible and limited in duration, including the availability of waivers and sunset provisions;
- d) The relationship of any numerical goals to the relevant business marketplace; and
- e) The impact of such measures on the rights of third parties.

Non-DBE

A non-DBE is a minority- or woman-owned business or majority-owned business that is not certified as a DBE regardless of the race/ethnicity or gender of the owner.

Participation

See “utilization.”

Potential DBE

A potential DBE is a minority- or woman-owned business that is DBE-certified or appears that it could be DBE-certified (regardless of actual DBE certification) based on revenue requirements specified as part of the Federal DBE Program.

Prime Contract

A prime contract is a contract between a prime contractor, or prime consultant, and an end user such as Caltrans.

Prime Contractor

A prime contractor is a business that performed a prime contract for an end user such as Metro.

Project

A project refers to a professional services or goods and services endeavor that Caltrans bid out during the study period. A project could include one or more prime contracts and corresponding subcontracts.

Race- and Gender-Conscious Measures

Race- and gender-conscious measures are contracting measures that are specifically designed to increase the participation of minority- and woman-owned businesses. Businesses owned by members of certain racial/ethnic groups—but not others—might be eligible for such measures. Similarly, businesses owned by women—but not men—might be eligible for such measures. The use of DBE contract goals is one example of a race- and gender-conscious measure.

Race- and Gender-Neutral Measures

Race- and gender-neutral measures are measures that are designed to remove potential barriers for all businesses, or small businesses, attempting to do work with an agency regardless of the race/ethnicity or gender of business 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-ups; and other efforts that are open to all businesses.

Relevant Geographic Market Area

The relevant geographic market area is the geographic area in which the businesses to which Caltrans awards most of its contracting dollars are located. The relevant geographic market area is also referred to as the “local marketplace.” Case law related to minority- and woman-owned

business programs and disparity studies requires disparity study analyses to focus on the “relevant geographic market area.” The relevant geographic market area for Caltrans is the entire state of California.

State-funded Contract

A state-funded contract is any contract or project that is wholly funded with non-federal funds—that is, they do not include United States Department of Transportation or any other federal funds.

Statistically Significant Difference

A statistically significant difference refers to a quantitative difference for which there is a 0.95 or 0.90 probability that chance can be correctly rejected as an explanation for the difference (meaning that there is a 0.05 or 0.10 probability, respectively, that chance in the sampling process could correctly account for the difference).

Strict Scrutiny

Strict scrutiny is the legal standard that an agency’s use of race- and gender-conscious measures must meet in order for it to be considered constitutional. Strict scrutiny represents the highest threshold for evaluating the legality of race- and gender-conscious measures short of prohibiting them altogether. Under the strict scrutiny standard, an agency must:

- a) Have a compelling governmental interest in remedying past identified discrimination or its present effects; and
- b) Establish that the use of any such measures is narrowly tailored to achieve the goal of remedying the identified discrimination.

An agency’s use of race- and gender-conscious measures must meet both the compelling governmental interest and the narrow tailoring components of the strict scrutiny standard for it to be considered constitutional.

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 a larger contract.

Subcontractor

A subcontractor is a business that performed services for a prime contractor as part of a larger contract.

Subrecipient Local Agency

A subrecipient local agency is a public transportation agency that receives state or federal grant funding from Caltrans for operating assistance, capital improvement projects, or transportation planning. In many cases subrecipient local agencies use that funding to award transportation-

related contracts to third-party vendors, which must comply with applicable Caltrans' contracting requirements, including those related to the Federal DBE Program.

Subindustry

A subindustry is a specific classification for businesses providing related goods or services within a particular industry (e.g., "architecture and engineering" is a subindustry of *professional services*).

United States Departments of Transportation (USDOT)

USDOT is a federal cabinet department of the United States government that oversees federal highway, air, railroad, maritime, and other transportation administration functions. The FTA is a USDOT agency.

Utilization

Utilization refers to the percentage of total contracting dollars that were associated with a particular set of contracts that went to a specific group of businesses.

Vendor

A vendor is a business that sells goods either to a prime contractor or prime consultant or to an end user such as Caltrans.

Woman-owned Business

A woman-owned business is a business with at least 51 percent ownership and control by non-Hispanic white women. A business does not have to be certified as a DBE to be considered a woman-owned business. (The study team considered businesses owned by minority women as minority-owned businesses.)

APPENDIX B.

Summary of Legal Environment for Caltrans DBE Program

APPENDIX B.

Summary of Legal Environment for Caltrans DBE Program

The following is a brief summary by Holland & Knight LLP of the legal environment relating to Caltrans' (Division of Rail and Mass Transportation) implementation of the Federal DBE Program.

1. The Federal DBE Program

The Federal Disadvantaged Business Enterprise ("DBE") Program ("Federal DBE Program") is implemented via regulations¹ promulgated by the United States Department of Transportation ("USDOT") as authorized by the Transportation Equity Act for the 21st Century (TEA-21) as amended and reauthorized ("MAP-21" and "SAFETEA" and "SAFETEA-LU").² In December 2015, the Federal DBE Program was continued and reauthorized by the Fixing America's Surface Transportation Act (FAST Act).³ Most recently, in October 2018, Congress passed the FAA Reauthorization Act⁴. This appendix briefly outlines the legal environment regarding the Federal DBE Program applicable to implementation of this Program in California. As a recipient of certain types of federal funds, the California Department of Transportation ("Caltrans"), including the Division on Rail and Mass Transportation, is required to comply with federal regulations (49 CFR Part 26) and implement the Federal DBE Program.

Caltrans is required to develop and submit for approval to the USDOT its DBE program, including an overall statewide goal for DBE participation on federally-funded contracts and a projection of what percentage of that overall goal it expects to meet through race- and gender-neutral means or, if necessary, race- and gender-conscious means, in accordance with the federal regulations.⁵ The overall DBE goal, depending on the evidence available to Caltrans, will be achieved through the use of race- and gender-neutral means, and, where appropriate, through the use of race- and gender-conscious means, or a combination of these measures, by meeting the maximum feasible portion of the overall goal using race- and gender-neutral means.⁶

- **F.A.A. Reauthorization Act of 2018, FAST Act and MAP-21.** In October 2018, December 2015 and in July 2012, Congress passed the F.A.A. Reauthorization Act, FAST Act and MAP-

¹ These regulations are found at 49 CFR Part 26 (Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs ("Federal DBE Program")).

² Moving Ahead for Progress in the 21st Century Act ("MAP-21"), Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat. 405, preceded by Pub L. 109-59, Title I, § 1101(b), August 10, 2005, 119 Stat. 1156; preceded by Pub L. 105-178, Title I, § 1101(b), June 9, 1998, 112 Stat. 107.

³ Pub. L. 114-94, H.R. 22, § 1101(b), December 4, 2015, 129 Stat. 1312.

⁴ Pub L. 115-254, H.R. 302 § 157, October 5, 2018, 132 Stat 3186.

⁵ 49 CFR Section 26.45.

⁶ 49 CFR Sections 26.45, 26.51.

21, respectively, which made “Findings” that “discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in airport-related markets,” in “federally-assisted surface transportation markets,” and that the continuing barriers “merit the continuation” of the Federal ACDBE Program and the Federal DBE Program.⁷ Congress also found in the F.A.A. Reauthorization Act of 2018, the FAST Act and MAP-21 that it received and reviewed testimony and documentation of race and gender discrimination which “provide a strong basis that there is a compelling need for the continuation of the” Federal ACDBE Program and the Federal DBE Program.⁸

2. Fixing America's Surface Transportation Act" or the "FAST Act" (December 4, 2015)

On December 3, 2015, the Fixing America's Surface Transportation Act" or the "FAST Act" was passed by Congress, and it was signed by the President on December 4, 2015, as the new *five-year* surface transportation authorization law.⁹ The FAST Act continues the Federal DBE Program and makes the following “Findings” in Section 1101 (b) of the Act:

SEC. 1101. AUTHORIZATION OF APPROPRIATIONS.

(b) Disadvantaged Business Enterprises-

(1) FINDINGS- Congress finds that—

(A) while significant progress has occurred due to the establishment of the disadvantaged business enterprise program, discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in federally assisted surface transportation markets across the United States;

(B) the continuing barriers described in subparagraph (A) merit the continuation of the disadvantaged business enterprise program;

(C) Congress has received and reviewed testimony and documentation of race and gender discrimination from numerous sources, including congressional hearings and roundtables, scientific reports, reports issued by public and private agencies, news stories, reports of discrimination by organizations and individuals, and discrimination lawsuits, which show that race- and gender-neutral efforts alone are insufficient to address the problem;

(D) the testimony and documentation described in subparagraph (C) demonstrate that discrimination across the United States poses a barrier to full and fair participation in surface transportation-related businesses of women business owners and minority business owners and

⁷ Pub L. 115-254, H.R. 302 § 157, October 5, 2018, 132 Stat 3186; Pub L. 114-94, H.R. 22, §1101(b), December 4, 2015, 129 Stat 1312; Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

⁸ *Id.* at Pub L. 115-254, H.R. 302 § 157, October 5, 2018, 132 Stat 3186; Pub L. 114-94, H.R. 22, § 1101(b)(1).

⁹ Pub. L. 114-94, H.R. 22, § 1101(b), December 4, 2015, 129 Stat. 1312.

has impacted firm development and many aspects of surface transportation-related business in the public and private markets; and

(E) the testimony and documentation described in subparagraph (C) provide a strong basis that there is a compelling need for the continuation of the disadvantaged business enterprise program to address race and gender discrimination in surface transportation-related business.¹⁰

Therefore, Congress in the FAST Act, passed on December 3, 2015, found based on testimony, evidence and documentation updated since MAP-21 was adopted in 2012 as follows: (1) discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in federally assisted surface transportation markets across the United States; (2) the continuing barriers described in § 1101(b), subparagraph (A) above merit the continuation of the disadvantaged business enterprise program; and (3) there is a compelling need for the continuation of the disadvantaged business enterprise program to address race and gender discrimination in surface transportation-related business.¹¹

3. MAP-21 (July 2012)

In the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21), Congress also provided "Findings" that "discrimination and related barriers" "merited the continuation of the" Federal DBE Program.¹² Congress in MAP-21 determined that there was "a compelling need for the continuation of the Federal DBE Program" based on testimony and documentation of race and gender discrimination and barriers to full and fair participation in surface transportation related businesses in the public and private markets.¹³

4. Implementing the Federal DBE Program

In implementing its Federal DBE Program, Caltrans is responsible for serious, good faith consideration of workable race-, ethnic-, and gender-neutral means, including those identified in 49 CFR Section 26.51(b), that can be implemented.¹⁴ The USDOT has advised that recipients

¹⁰ *Id.*

¹¹ *Id.*

¹² Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

¹³ *Id.*

¹⁴ *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT*, 713 F. 3d 1187, 1199 (9th Cir. 2013 (*AGC, San Diego v. Caltrans*)); *Western States Paving Company v. Washington State Department of Transportation*, 407 F.3d 983, 993 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006) (citing 49 CFR Section 26.51(a)); *See, e.g., Parents Involved in Community Schools v. Seattle School District*, 551 U.S. 701, 732-47, 127 S.Ct 2738, 2760-61 (2007); *Midwest Fence v. Illinois DOT, et al.*, 840 F.3d 932, 937-938, 953-954 (7th Cir. 2016), *cert. denied*, 2017 WL 497345 (2017); *H. B. Rowe*, 615 F.3d 233, 252-255 (2010); *Sherbrooke Turf Inc. v. Minnesota DOT*, 345 F.3d 964 at 972 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004); *Adarand Constructors, Inc. v. Slater (Adarand VII)*, 228 F.3d 1147 at 1179 (10th Cir. 2000), *cert. granted, then dismissed as improvidently granted sub nom. Adarand Constructors, Inc. v. Mineta*, 532 U.S. 941, 534 U.S. 103 (2001); *Eng'g Contractors Ass'n*, 122 F.3d at 927 (1997); *Contractors Ass'n of E. Pa. v. City of Philadelphia (CAEP II)*, 91 F.3d at 608-609 (3d Cir. 1996); *Contractors Ass'n (CAEP I)*, 6 F.3d at 1008-1009 (3d Cir. 1993); *Coral Constr. Co. v. King County*, 941 F.2d 910, at 923 (1991); *Associated General Contractor of America, San Diego Chapter, Inc. v. California DOT*, U.S.D.C. E.D. Cal., Civil Action No.S:09-cv-01622, Slip Opinion (E.D. Cal. April 20, 2011) *appeal dismissed based on standing, on other grounds Ninth Circuit held Caltrans' DBE Program*

should take affirmative steps to use as many race-neutral means of achieving DBE participation identified at 49 CFR Section 26.51(b) as possible.¹⁵

The Ninth Circuit Court of Appeals in *Associated General Contractors of America, San Diego Chapter, Inc. v. Cal. DOT (“AGC, San Diego v. Caltrans”) and Western States Paving Co. v. Washington State DOT* found that “the regulations require a state to ‘meet the maximum feasible portion of [its] overall goal by using race-neutral means.’”¹⁶ The courts have held that while a state is not required to exhaust every possible race-, ethnicity-, and gender-neutral alternative, it does “require serious, good faith consideration of workable race-neutral alternatives.”¹⁷ In formulating its implementation of the Federal DBE Program, Caltrans must assess how much of the annual DBE goal can be met through neutral means and what percentage, if any, should be met through race- and gender-conscious means.

Strict scrutiny. Race- or gender-conscious measures are not appropriate unless they are to remedy identified discrimination or its effects in the state transportation contracting industry.¹⁸ If Caltrans implements race- and gender-conscious measures, it is subject to the “strict scrutiny” analysis as applied by the courts.¹⁹ The first prong of the strict scrutiny analysis requires a governmental entity to have a “compelling governmental interest” in remedying past identified discrimination.²⁰ The Ninth Circuit and other federal courts have held that, with respect to the

constitutional. Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al., 713 F.3d 1187 (9th Cir. April 16, 2013).

¹⁵ Questions and Answers Concerning Response to *Western States Paving Company v. Washington State Department of Transportation* [hereinafter DOT Guidance], available at http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm. See 49 CFR Section 26.9 (January 2006); See, e.g., *Northern Contracting*, 473 F.3d at 723 – 724; *Western States Paving*, 407 F.3d at 993 (citing 49 CFR § 26.51(a)).

¹⁶ *AGC, San Diego v. Caltrans*, 713 F.3d 1187, 1199 (9th Cir. 2013); *Western States Paving*, 407 F.3d at 993; 49 CFR Section 26.51.

¹⁷ *AGC, San Diego v. Caltrans*, 713 F.3d at 1199; *Western States Paving*, 407 F.3d at 993; See, e.g., *Parents Involved in Community Schools v. Seattle School District*, 551 U.S. 701, 732-47, 127 S.Ct 2738, 2760-61 (2007); *Midwest Fence v. Illinois DOT, et al.*, 840 F.3d 932, 937-938, 953-954 (7th Cir. 2016), *cert. denied*, 2017 WL 497345 (2017); *Dunnet Bay Construction Co. v. Borggren, Illinois DOT, et al.*, 799 F.3d 676, 2015 WL 4934560 (7th Cir., 2015), *cert. denied*, 137 S. Ct. 31, 2016 WL 193809 (2016); *Sherbrooke Turf*, 345 F.3d at 972; *Adarand VII*, 228 F.3d at 1179; *Eng’g Contractors Ass’n of S. Florida v. Metro-Dade County*, 122 F.3d 895, at 927 (11th Cir. 1997); *Coral Constr. Co. v. King County*, 941 F.2d 910, at 923 (9th Cir. 1991); *Dunnet Bay Construction Co. v. Illinois DOT, et al.* 2014 WL 552213 (C. D. Ill. 2014), affirmed by *Dunnet Bay*, 2015 WL 4934560 (7th Cir., 2015).

¹⁸ *AGC, San Diego v. Caltrans*, 713 F.3d at 1191, 1198; *Western States Paving*, 407 F.3d 983, 995-999; 49 CFR Part 26; see, e.g., *Mountain West Holding Co., Inc. v. Montana*, 2017 WL 2179120 (9th Cir. May 16, 2017), Memorandum, (Not for Publication), *dismissing in part, reversing in part and remanding* the U.S. District Court decision at 2014 WL 6686734 (D. Mont. 2014); *M.K. Weeden Construction v. State of Montana, Montana DOT*, 2013 WL 4774517 (D. Mt. 2013).

¹⁹ See *City of Richmond v. J.A. Croson*, 488 U.S. 469 (1989); *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995); *AGC, San Diego v. Caltrans*, 713 F.3d 1187, 1191; *Western States Paving*, 407 F.3d 983; see, e.g., *Mountain West*, 2017 WL 20179170 (9th Cir. 2017); *M.K. Weeden*, 2013 WL 4774517 (D. Mt. 2013). The Ninth Circuit Court of Appeals and other courts have applied “intermediate scrutiny” to gender-conscious programs. The Ninth Circuit has interpreted this standard to require that gender-based classifications be: (1) Supported by both an exceedingly persuasive justification; and (2) Substantially related to the achievement of that underlying objective. See *AGC, San Diego v. Caltrans*, 713 F.3d at 1191-1195; *Western States Paving*, 407 F.3d at 990 n.6; *Coral Constr. Co. v. King County*, 941 F.2d 910, 931 (9th Cir. 1991); *Equal Found. v. City of Cincinnati*, 128 F.3d 289 (6th Cir. 1997).

²⁰ *Adarand I*, 515 U.S. 200, 227 (1995); *Croson*, 488 U.S. 469 (1989); *AGC, SDC v. Caltrans*, 713 F.3d 1187, 1195-1200 (9th Cir. 2013); *Midwest Fence*, 840 F.3d 932; *Northern Contracting*, 473 F.3d at 721; *Western States Paving*, 407 F.3d at 991 (9th Cir. 2005); *Sherbrooke Turf*, 345 F.3d at 969; *Adarand VII*, 228 F.3d at 1176; *Associated Gen. Contractors of Ohio, Inc. v. Drabik*

Federal DBE Program, state departments of transportation (“DOTs”) do not need to independently satisfy this prong because Congress has satisfied the compelling governmental interest test of the strict scrutiny analysis.²¹ The second prong of the strict scrutiny analysis requires that a state DOT’s implementation of the Federal DBE Program be “narrowly tailored” to remedy identified discrimination in a particular state’s transportation contracting and procurement market.²²

Narrow tailoring. The narrow tailoring requirement has several components. According to the Ninth Circuit in *AGC, San Diego v. Caltrans* and *Western States Paving*, a state must have sufficient evidence of discrimination within the state’s own transportation contracting marketplace in order to determine whether or not there is the need for race- or gender-conscious remedial action.²³ Thus, the Ninth Circuit ruled that mere compliance with federal regulations implementing the Federal DBE Program alone is not enough to satisfy strict scrutiny.²⁴ Second, the Court found that even where evidence of discrimination is present in a state, a narrowly tailored program should apply only to those minority groups who have actually suffered discrimination.²⁵ For a specific minority group to be included in any race-conscious measures in a state’s implementation of the Federal DBE Program, there must be evidence that the group

(“*Drabik II*”), 214 F.3d 730 (6th Cir. 2000); *Eng’g Contractors Ass’n of South Florida, Inc. v. Metro. Dade County*, 122 F.3d 895 (11th Cir. 1997); *Contractors Ass’n of E. Pa. v. City of Philadelphia (“CAEP I”)*, 6 F.3d 990 (3d Cir. 1993).

²¹ *AGC, San Diego v. Caltrans*, 713 F.3d at 1191-1193; *Midwest Fence v. Illinois DOT, et al.*, 840 F.3d 932, 937-938, 953-954 (7th Cir. 2016), *cert. denied*, 2017 WL 497345 (2017); *Dunnet Bay Construction Co. v. Borggren, Illinois DOT, et al.*, 799 F.3d 676, 2015 WL 4934560 (7th Cir., 2015), *cert. denied*, 137 S. Ct. 31 (2016); *Northern Contracting, Inc. v. Illinois DOT*, 473 F.3d 715, 721 (7th Cir. 2007), *reh’g and reh’g en banc denied* (7th Cir. 2007); *Western States Paving*, 407 F.3d at 991; *Sherbrooke Turf, Inc. v. Minnesota DOT and Gross Seed Co. v. Nebraska Dep’t of Road*, 345 F.3d 964, 969 (8th Cir. 2003); *Adarand Constructors, Inc. v. Slater (Adarand VII)*, 228 F.3d 1147, 1176 (10th Cir. 2000).

²² *AGC, San Diego v. Caltrans*, 713 F.3d at 1191-1193, 1195-1200; *Western States Paving*, 407 F.3d at 995-998; *Sherbrooke Turf*, 345 F.3d at 970-71; *see, e.g., Mountain West Holding Co., Inc. v. Montana*, 2017 WL 2179120 (9th Cir. 2017), *Memorandum, (Not for Publication), dismissing in part, reversing in part and remanding the U.S. District Court decision at 2014 WL 6686734 (D. Mont. 2014)*.

²³ *AGC, San Diego v. Caltrans*, 713 F.3d at 1191-1192, 1195-1196; *Western States Paving*, 407 F.3d at 997-98, 1002-03; *see Mountain West Holding Co., Inc. v. Montana*, 2017 WL 2179120 (9th Cir. 2017); *M.K. Weeden v. Montana*, 2013 WL 4774517 at *4 (D. Mont. 2013).

²⁴ *Western States Paving*, 407 F.3d at 995-1003. In the *Northern Contracting* decision (2007), the Seventh Circuit held “that a state is insulated from [a narrow tailoring] constitutional attack, absent a showing that the state exceeded its federal authority. IDOT here is acting as an instrument of federal policy and Northern Contracting (NCI) cannot collaterally attack the federal regulations through a challenge to IDOT’s program.” 473 F.3d at 722. The Seventh Circuit distinguished both the Ninth Circuit decision in *Western States Paving* and the Eighth Circuit decision in *Sherbrooke Turf*, relating to an as-applied narrow tailoring analysis. The court held that IDOT’s application of a federally mandated program is limited to the question of whether the state exceeded its grant of federal authority under the Federal DBE Program. *Id.* at 722. The court affirmed the district court upholding the validity of IDOT’s DBE program. *See, e.g., Midwest Fence Corp. v. U.S. DOT*, 840 F.3d 930 (7th Cir 2016), *cert. denied*, 2017 WL 497345 (2017); *Dunnet Bay Construction Co. v. Borggren, Illinois DOT, et al.*, 799 F.3d 676 (7th Cir. 2015), *cert. denied*, 137 S.Ct. 31 (2016); *Dunnet Bay Construction Co. v. Illinois DOT, et al.* 2014 WL 552213 (C. D. Ill. 2014), *affirmed by Dunnet Bay*, 2015 WL 4934560 (7th Cir. 2015); *Geod Corp. v. New Jersey Transit Corp., et al.*, 746 F.Supp.2d 642 (D.N.J. 2010); *South Florida Chapter of the Associated General Contractors v. Broward County, Florida*, 544 F.Supp.2d 1336 (S.D. Fla. 2008).

²⁵ *Western States Paving*, 407 F.3d at 995-1003; *See, AGC, San Diego v. Caltrans*, 713 F.3d at 1191, 1198-1199; *see, e.g., Mountain West Holding Co., Inc. v. Montana*, 2017 WL 2179120 (9th Cir. May 16, 2017), *Memorandum, (Not for Publication), dismissing in part, reversing in part and remanding the U.S. District Court decision at 2014 WL 6686734 (D. Mont. 2014); M. K. Weeden Construction v. State of Montana, Montana DOT*, 2013 WL 4474517 (D. Mont. 2013).

suffered discrimination or its effects within the local marketplace.²⁶

Federal courts have held that additional factors may also be pertinent in determining whether a state DOT's implementation of the Federal DBE Program is narrowly tailored: flexibility and limited duration of race-conscious measures, including the availability of waiver provisions; the relationship of the numerical DBE goals to the relevant market; the effectiveness of alternative race- and gender-neutral remedies; and the impact of a race-conscious remedy on the rights of third parties.²⁷

Western States Paving Co. v. WSDOT (9th Cir. 2005). In *Western States Paving*, the United States intervened to defend the Federal DBE Program's facial constitutionality, and, according to the Court, stated "that [the Federal DBE Program's] race conscious measures can be constitutionally applied only in those states where the effects of discrimination are present."²⁸ Accordingly, the USDOT advised federal aid recipients that any use of race-conscious measures must be predicated on evidence that the recipient has concerning discrimination or its effects within the local transportation contracting marketplace.²⁹

Following *Western States Paving*, the USDOT recommended the use of disparity studies by state DOTs to examine whether or not there is evidence of discrimination or its effects, and how remedies might be narrowly tailored in developing their DBE Program to comply with the Federal DBE Program and its implementation by state DOTs and recipients of Federal Funds from the U.S. DOT.³⁰ The USDOT suggests consideration of both statistical and anecdotal evidence, and that evidence of discrimination and its effects should be examined separately for each group presumed to be disadvantaged in 49 CFR Part 26.³¹

Therefore, Caltrans in 2006-2007 conducted a disparity study and implemented its DBE Program in 2009 as approved by the Federal Highway Administration. Caltrans also engaged in a disparity study in 2016 and 2012. Caltrans engaged in a study regarding its Division of Mass Transportation in 2014, and is now conducting a new 2019 disparity study to assist it in implementing the federal regulations and the Federal DBE Program, based on the most recent

²⁶ *AGC, San Diego v. Caltrans*, 713 F.3d at 1191, 1198-1199; *Western States Paving*, 407 F.3d at 996-1000; *See, e.g., Mountain West Holding*, 2017 WL 2179120 (9th Cir. 2017); *M.K. Weeden*, 2013 WL 4774517 (D. Mt. 2013); *Sherbrooke Turf*, 345 F.3d at 971; *Adarand VII*, 228 F.3d at 1181; *see also, H. B. Rowe Co., Inc. v. NCDOT, Tippet, et al.*, 615 F.3d 233 (4th Cir. 2010); *Kossmann Contracting Co., Inc. v. City of Houston*, 2016 WL 1104363 (S.D. Tex. 2016); *Kornhass Construction, Inc. v. State of Oklahoma, Department of Central Services*, 140 F.Supp.2d at 1247-1248 (W.D. OK. 2001).

²⁷ *See, AGC, SDC v. Caltrans*, 713 F.3d at 1198-1199; *Rothe Development Corp v. U.S. Department of Defense*, 545 F.3d 1023, at 1036 (Fed. Cir. 2008); *Western State Paving*, 407 F.3d at 993-995; *Sherbrooke Turf*, 345 F.3d at 971; *Adarand VII*, 228 F.3d at 1181; *see, e.g., Midwest Fence*, 840 F.3d 932, 937-939, 947-954 (7th Cir. 2016); *H. B. Rowe*, 615 F.3d 233, 253; CAEP I, 6 F.3d at 1009; *Associated Gen. Contractors of Ca., Inc. v. Coalition for Economic Equality ("AGC of Ca.")*, 950 F.2d 1401, 1417 (9th Cir. 1991); *Coral Constr. Co. v. King County*, 941 F.2d 910, 923 (9th Cir. 1991); *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 917 (11th Cir. 1990); *Contractors Ass'n of E. Pa. v. City of Philadelphia*, 91 F.3d at 606-608 (3d Cir. 1996); *Contractors Ass'n of E. Pa. v. City of Philadelphia*, 6 F.3d at 1008-1009 (3d Cir. 1993).

²⁸ *Western States Paving*, 407 F.3d at 996; *see also* Br. for the United States, at 28 (April 19, 2004).

²⁹ *DOT Guidance*, available at http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm (January 2006).

³⁰ *Id.*; *see also* 42 CFR Section 26.45.

³¹ *DOT Guidance*, available at http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm (January 2006).

authority regarding the validity of the Federal DBE Program and its implementation by state DOTs and recipients of federal funds.³²

AGC, San Diego v Caltrans (9th Cir. 2013).³³ In *Western States Paving*, the Ninth Circuit in 2005 upheld the validity of the Federal DBE Program, but the Court held invalid and unconstitutional WSDOT's DBE Program implementation of the Federal DBE Program³⁴. The Court held that mere compliance with the Federal DBE Program by state recipients of federal funds, absent independent and sufficient state-specific evidence of discrimination in the state's transportation contracting industry marketplace, did not satisfy the strict scrutiny analysis.³⁵

The Ninth Circuit Court of Appeals and the United States District Court for the Eastern District of California in *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation ("Caltrans"), et al. ("AGC, San Diego v. Caltrans")*, upheld the validity of California DOT's DBE Program implementing the Federal DBE Program, and held that Caltrans' implementation of the Federal DBE Program is constitutional.³⁶ The Ninth Circuit held that Caltrans' DBE Program implementing the Federal DBE Program complied with the ruling in *Western States Paving*, and was constitutional and survived strict scrutiny by: (1) having a strong basis in evidence of discrimination within the California transportation contracting industry based in substantial part on the evidence from the Disparity Study conducted for Caltrans; and

³² *AGC, San Diego v. Caltrans*, 713 F.3d 1187 (9th Cir. 2013); *See, e.g., Mountain West Holding Co., Inc. v. Montana*, 2017 WL 2179120 (9th Cir. 2017), Memorandum, (Not for Publication), dismissing in part, reversing in part and remanding the U.S. District Court decision at 2014 WL 6686734 (D. Mont. 2014); *Midwest Fence Corp. v. U.S. DOT, FHWA, Illinois DOT, Illinois State Toll Highway Authority, et al.*, 840 F.3d 932, 2016 WL 6543514 (7th Cir. 2016), *cert. denied*, 2017 WL 497345 (2017); *Dunnet Bay Construction Co. v. Borggren, Illinois DOT, et al.*, 799 F.3d 676, 2015 WL 4934560 (7th Cir. 2015); *Northern Contracting*, 473 F.3d 715; *Western States Paving*, 407 F.3d 983; *Sherbrooke Turf*, 345 F.3d 964; *Adarand VII*, 228 F.3d 1147; *Geyer Signal, Inc., et al v. Minnesota Dep't of Transp., et al*, 2014 WL 1309092 (D. Minn. 2014), *appeal dismissed* (2014); *M.K. Weeden v. Montana*, 2013 WL 4774517 (D. Mont. 2013); *Geod Corp. v. New Jersey Transit Corp., et al.*, 746 F.Supp.2d 642 (D.N.J. 2010); *South Florida Chapter of AGC v. Broward County, Florida*, 544 F.Supp.2d 1336 (S.D. Fla. 2008). *See also H.B. Rowe Co., Inc. v. NCDOT, Tippett*, 615 F.3d 233 (4th Cir. 2010)(Court upheld North Carolina DOT MBE program on its face and as applied to Black and Native American subcontractors and struck down program as applied to WBEs and Asian and Hispanic American subcontractors); *Rothe Development, Inc. v. U.S. Department of Defense and Small Business Administration* 836 F.3d 57 (D.C. Cir. 2016), *cert. denied*, 2017 WL 1375832 (2017), affirming on other grounds *Rothe*, 107 F. Supp. 3d 183 (D.D.C. 2015); *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008)(Court held unconstitutional the Department of Defense social and economic disadvantaged businesses ("SDBs") program); *Dynalantic Corp. v. U.S. Department of Defense, et al.*, 885 F.Supp. 2d 23 (D. D.C. 2012). (Court upheld constitutionality of the SBA Section 8(a) Program on its face, but struck down the Program as applied to military simulation training industry).

³³ 713 F.3d 1187 (9th Cir. 2013).

³⁴ 407 F.3d 983 (2005).

³⁵ *Id.*

³⁶ *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT*, 713 F. 3d 1187, 1195-1200 (9th Cir. 2013); *Associated General Contractor of America, San Diego Chapter, Inc. v. California DOT*, U.S.D.C. E.D. Cal., Civil Action No.S:09-cv-01622, Slip Opinion (E.D. Cal. April 20, 2011), *appeal dismissed based on standing, on other grounds Ninth Circuit held Caltrans' DBE Program constitutional. Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*, 713 F. 3d 1187 (9th Cir. 2013); *see M.K. Weeden v. Montana*, 2013 WL 4774517 at *4 (D. Mont. 2013).

(2) being “narrowly tailored” to benefit only those groups that have actually suffered discrimination.³⁷

The District Court had held that the “Caltrans DBE Program is based on substantial statistical and anecdotal evidence of discrimination in the California contracting industry,” satisfied the strict scrutiny standard, and is “clearly constitutional” and “narrowly tailored” under *Western States Paving* and the Supreme Court cases.³⁸

There have been three other recent cases in the Ninth Circuit instructive for the study, as follows:

Mountain West Holding v. Montana DOT and M.K. Weeden v. Montana DOT.

Mountain West Holding Co., Inc. v. The State of Montana, Montana DOT, et al., 2017 WL 2179120 (9th Cir. 2017), Memorandum opinion, (Not for Publication), *dismissing in part, reversing in part and remanding* the U.S. District Court decision at 2014 WL 6686734 (D. Mont. Nov. 26, 2014).

The Ninth Circuit and the district court in *Mountain West* applied the decision in *Western States*, 407 F.3d 983 (9th Cir. 2005), and the decision in *AGC, San Diego v. California DOT*, 713 F.3d 1187 (9th Cir. 2013) as establishing the law to be followed in this case. The district court noted that in *Western States*, the Ninth Circuit held that a state’s implementation of the Federal DBE Program can be subject to an as-applied constitutional challenge, despite the facial validity of the Federal DBE Program. 2014 WL 6686734 at *2 (D. Mont. 2014). The Ninth Circuit and the district court stated the Ninth Circuit has held that whether a state’s implementation of the DBE Program “is narrowly tailored to further Congress’s remedial objective depends upon the presence or absence of discrimination in the State’s transportation contracting industry.” *Mountain West*, 2014 WL 6686734 at *2, quoting *Western States*, at 997-998, and *Mountain West*, 2017 WL 2179120 at *2 (9th Cir. 2017) Memorandum, at 5-6, quoting *AGC, San Diego v. California DOT*, 713 F.3d 1187, 1196. The Ninth Circuit in *Mountain West* also pointed out it had held that “even when discrimination is present within a State, a remedial program is only narrowly tailored if its application is limited to those minority groups that have actually suffered discrimination.” *Mountain West*, 2017 WL 2179120 at *2, Memorandum, at 6, and 2014 WL 6686734 at *2, quoting *Western States*, 407 F.3d at 997-999.

Montana, the Court found, bears the burden to justify any racial classifications. *Id.* In an as-applied challenge to a state’s DBE contracting program, “(1) the state must establish the presence of discrimination within its transportation contracting industry, and (2) the remedial program must be ‘limited to those minority groups that have actually suffered discrimination.’” *Mountain West*, 2017 WL 2179120 at *2 (9th Cir.), Memorandum, at 6-7, quoting *Assoc. Gen. Contractors of Am. v. Cal. Dep’t of Transp.*, 713 F.3d 1187, 1196 (9th Cir. 2013) (quoting *W. States Paving*, 407 F.3d at 997-99). Discrimination may be inferred from “a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the

³⁷ *AGC, San Diego v. Caltrans*, 713 F.3d at 1195-1200.

³⁸ *Id.*, *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT*, Slip Opinion Transcript of U.S. District Court at 42-56.

locality's prime contractors." *Mountain West*, 2017 WL 2179120 at *2 (9th Cir.), Memorandum, at 6-7, quoting, *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 509 (1989).

The Ninth Circuit reversed the District Court's grant of summary judgment to Montana based on issues of fact as to the evidence and remanded the case for trial. The *Mountain West* case was settled and voluntarily dismissed by the parties on remand in 2018.

The District Court decision in the Ninth Circuit in Montana, *M.K. Weeden*³⁹, followed the *AGC, SDC v. Caltrans* Ninth Circuit decision, and held as valid and constitutional the Montana Department of Transportation's implementation of the Federal DBE Program.

Orion Insurance Group; Ralph G. Taylor, Plaintiffs v. Washington State Office of Minority & Women's Business Enterprises, United States DOT, et. al., 2018 WL 6695345 (9th Cir. December 19, 2018) (Memorandum) (Not for Publication). Plaintiffs, Orion Insurance Group ("Orion") and its owner Ralph Taylor, filed this case alleging violations of federal and state law due to the denial of their application for Orion to be considered a DBE under federal law.

Plaintiff Taylor received results from a genetic ancestry test that estimated he was 90 percent European, 6 percent Indigenous American, and 4 percent Sub-Saharan African. Taylor submitted an application to OMWBE seeking to have Orion certified as a MBE under Washington State law. Taylor identified himself as Black. His application was initially rejected, but after Taylor appealed, OMWBE voluntarily reversed their decision and certified Orion as an MBE. Plaintiffs submitted to OMWBE Orion's application for DBE certification under federal law. Taylor identified himself as Black and Native American in the Affidavit of Certification.

Orion's DBE application was denied because there was insufficient evidence that: he was a member of a racial group recognized under the regulations; was regarded by the relevant community as either Black or Native American; or that he held himself out as being a member of either group. OMWBE found the presumption of disadvantage was rebutted and the evidence was insufficient to show Taylor was socially and economically disadvantaged.

The District court held OMWBE did not act arbitrarily or capriciously when it found the presumption was rebutted that Taylor was socially and economically disadvantaged because there was insufficient evidence he was either Black or Native American. By requiring individualized determinations of social and economic disadvantage, the court found the Federal DBE Program requires states to extend benefits only to those who are actually disadvantaged.

The District court dismissed the claim that, on its face, the Federal DBE Program violates the Equal Protection Clause, and the claim that the Defendants, in applying the Federal DBE Program to him, violated the Equal Protection Clause. The court found no evidence that the application of the federal regulations was done with an intent to discriminate against mixed-race individuals or with racial animus, or creates a disparate impact on mixed-race individuals. The court held

³⁹ *M.K. Weeden*, 2013 WL 4774517.

Plaintiffs failed to show that either the State or Federal Defendants had no rational basis for the difference in treatment.

The District court dismissed claims that the definitions of “Black American” and “Native American” in the DBE regulations are impermissibly vague. Plaintiffs’ claims were dismissed against the State Defendants for violation of Title VI because Plaintiffs failed to show the State engaged in intentional racial discrimination. The DBE regulations’ requirement that the State make decisions based on race was held constitutional.

On appeal, the Ninth Circuit in affirming the District court held it correctly dismissed Taylor’s claims against Acting Director of the USDOT’s Office of Civil Rights, in her individual capacity, Taylor’s discrimination claims under 42 U.S.C. §1983 because the federal defendants did not act “under color or state law,” Taylor’s claims for damages because the United States has not waived its sovereign immunity, and Taylor’s claims for equitable relief under 42 U.S.C. §2000d because the Federal DBE Program does not qualify as a “program or activity” within the meaning of the statute.

The Ninth Circuit held OMWBE did not act in an arbitrary and capricious manner when it determined it had a “well-founded reason” to question Taylor’s membership claims, determined that Taylor did not qualify as a “socially and economically disadvantaged individual,” and when it affirmed the state’s decision was supported by substantial evidence and consistent with federal regulations. The court held the USDOT “articulated a rational connection” between the evidence and the decision to deny Taylor’s application for certification.

5. Pending Cases (at the time of this report)

There are pending cases in the federal courts at the time of this report involving challenges to MBE/WBE/DBE Programs and that may potentially impact and be instructive to the study, including the following:

- **Mechanical Contractors Association of Memphis, Inc., White Plumbing & Mechanical Contractors, Inc. and Morgan & Thornburg, Inc. v. Shelby County, Tennessee, et al.**, U.S. District Court for Western District of Tennessee, Western Division, Case 2:19-cv-02407-SHL-tmp, filed on January 17, 2019. This is a challenge to the Shelby County, Tennessee “MWBE” Program. In *Mechanical Contractors Association of Memphis, Inc., White Plumbing & Mechanical Contractors, Inc. and Morgan & Thornburg, Inc. v. Shelby County, Tennessee, et al.*, the Plaintiffs are suing Shelby County for damages and to enjoin the County from the alleged unconstitutional and unlawful use of race-based preferences in awarding government construction contracts. The Plaintiffs assert violations of the Fourteenth Amendment to the United States Constitution, 42 U.S.C. Sections 1981, 1983, and 2000(d), and Tenn. Code Ann. § 5-14-108 that requires competitive bidding. The Plaintiffs claim the County MWBE Program is unconstitutional and unlawful for both prime and subcontractors. Plaintiffs ask the Court to declare it as such, and to enjoin the County from further implementing or operating under it with respect to awarding government construction contracts.
- **Palm Beach County Board of County Commissioners v. Mason Tillman Associates, Ltd.; Florida East Coast Chapter of the AGC of America, Inc.**, Case No. 502018CA010511; In the

15th Judicial Circuit in and for Palm Beach County, Florida. In this case, the County sued Mason Tillman Associates (MTA) to turn over background documents from disparity studies it conducted for the Solid Waste Authority and for the county as a whole. Those documents include the names of women and minority business owners who, after MTA promised them anonymity, described discrimination they say they faced trying to get county contracts. Those documents were sought initially as part of a records request by the Associated General Contractors of America (AGC).

The County filed suit after its alleged unsuccessful efforts to get MTA to provide documents needed to satisfy a public records request from AGC. The Florida ECC of AGC (AGC) also requested information related to the disparity study that MTA prepared for the County.

The AGC requests documents from the County and MTA related to its study and its findings and conclusions. AGC requests documents including the availability database, underlying data, anecdotal interview identities, transcripts and findings, and documents supporting the findings of discrimination.

At the time of this report, MTA has filed a Motion to Dismiss, which is pending.

This list of pending cases is not exhaustive, but in addition to the cases cited previously may potentially have an impact on the study and Caltrans' implementation of the Federal DBE Program.

Ongoing Review

The above represents a brief summary of the legal environment pertinent to implementation of the Federal DBE Program by Caltrans. Because this is a dynamic area of the law, the summary is subject to ongoing review as the law continues to evolve.

APPENDIX C.

Quantitative Analysis

APPENDIX C.

Quantitative Analysis

Figure C-1.
Percentage of all workers 25 and older with at least a four-year degree, California and the United States, 2012-2016

Note:

**/++ Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level for California and the United States as a whole, respectively.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

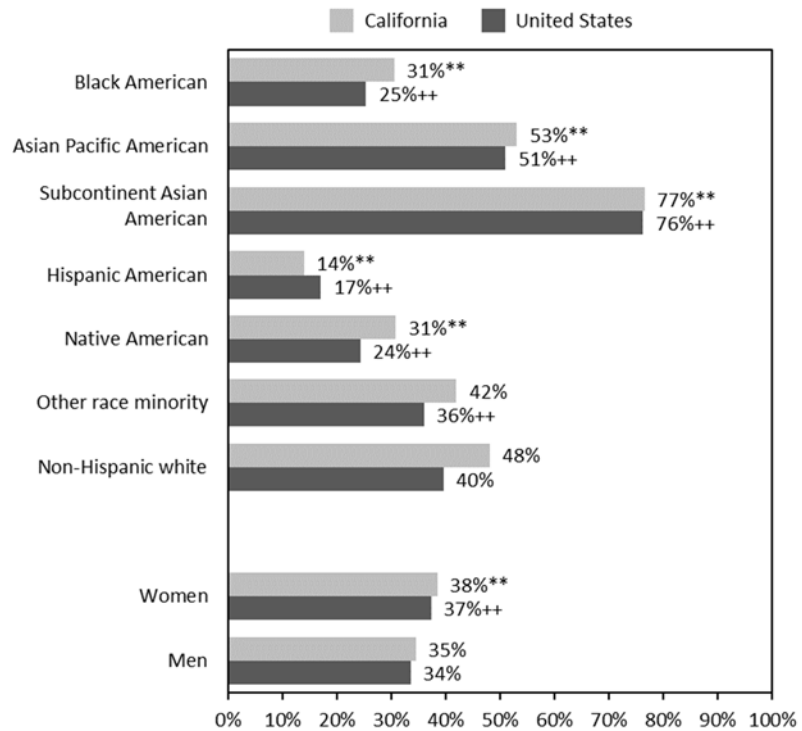
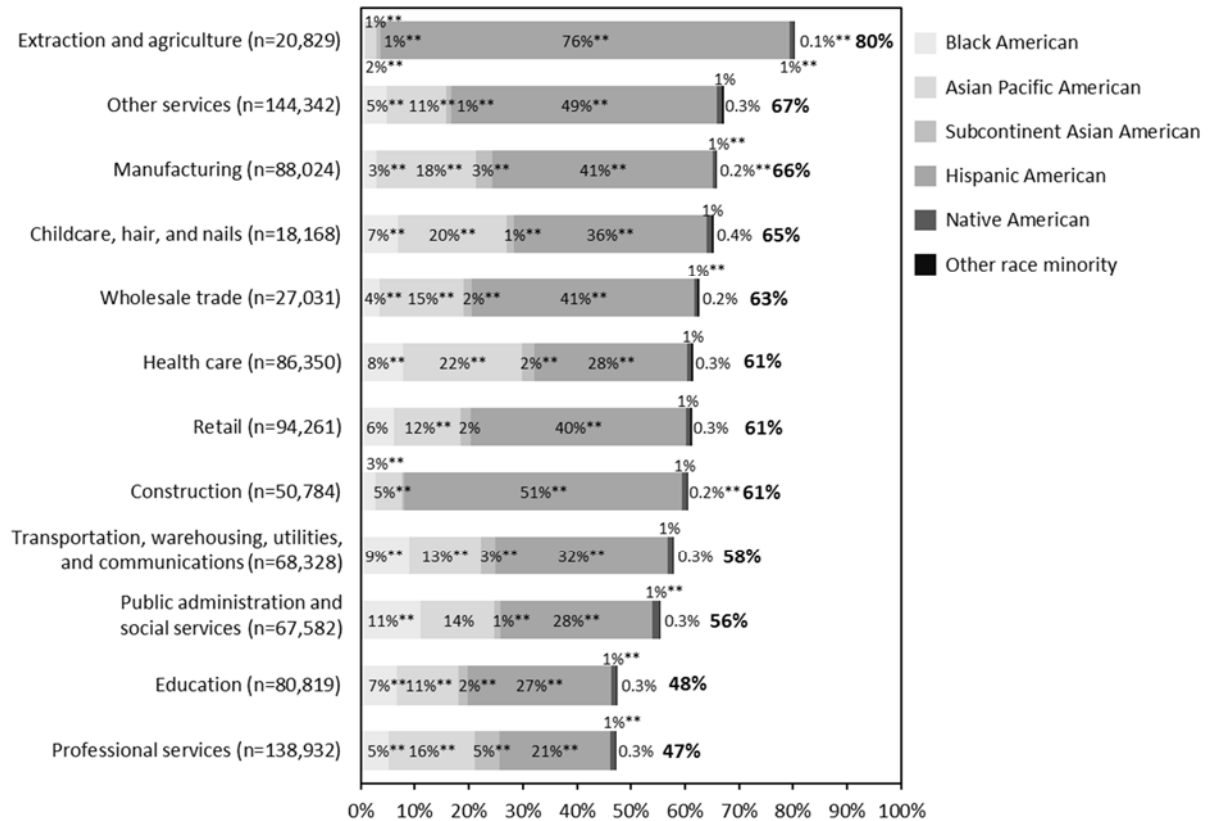


Figure C-1 indicates that, compared to non-Hispanic white Americans working in the California marketplace, smaller percentages of Black Americans, Hispanic Americans, and Native Americans have four-year college degrees. In contrast, a larger percentage of Asian Pacific Americans and Subcontinent Asian Americans have four-year college degrees. In addition, a larger percentage of women than men working in the California marketplace have four-year college degrees.

Figure C-2.
Percent representation of minorities in various industries in California, 2012-2016



Note: ** Denotes that the difference in proportions between minority workers in the specified industry and all industries is statistically significant at the 95% confidence level.

The representation of minorities among all California workers is 6% for Black Americans, 14% for Asian Pacific American, 2% for Subcontinent Asian American, 37% for Hispanic Americans, 1% for Native American, and 60% for all minorities considered together.

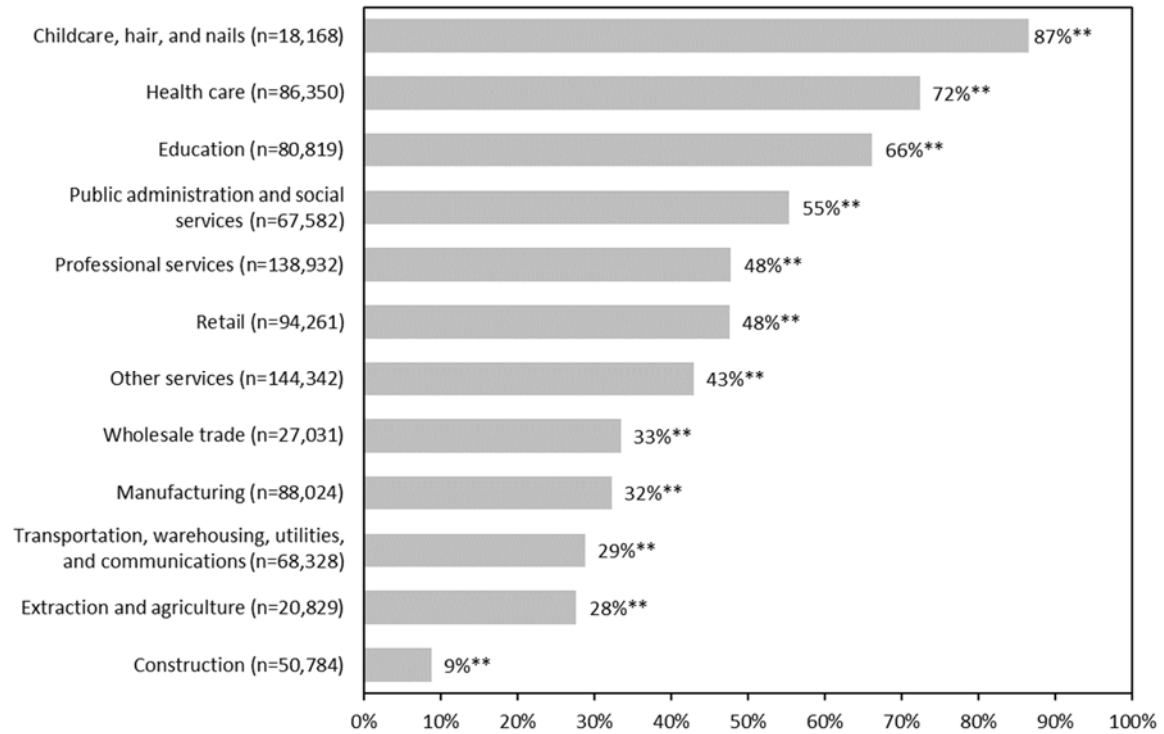
"Other race minority" includes Census respondents who do not identify with the racial categories defined by the U.S. Census Bureau.

Workers in the finance, insurance, real estate, legal services, accounting, advertising, architecture, management, scientific research, and veterinary services industries were combined to one category of professional services; Workers in the rental and leasing, travel, investigation, waste remediation, arts, entertainment, recreation, accommodations, food services, and select other services were combined into one category of other services; Workers in child day care services, barber shops, beauty salons, nail salons, and other personal were combined into one category of childcare, hair, and nails.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-2 indicates that the specific construction; professional services; and goods and services industries in the California marketplace with the highest representations of minority workers are extraction and agriculture; other services; and manufacturing.

Figure C-3.
Percent representation of women in various industries in California, 2012-2016



Note: ** Denotes that the difference in proportions between women workers in the specified industry and all industries is statistically significant at the 95% confidence level.

The representation of women among all California workers is 46%.

Workers in the finance, insurance, real estate, legal services, accounting, advertising, architecture, management, scientific research, and veterinary services industries were combined to one category of professional services; Workers in the rental and leasing, travel, investigation, waste remediation, arts, entertainment, recreation, accommodations, food services, and select other services were combined into one category of other services; Workers in child day care services, barber shops, beauty salons, nail salons, and other personal were combined into one category of childcare, hair, and nails.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-3 indicates that the specific construction; professional services; and goods and services industries in the California marketplace with the highest representations of women workers are childcare, hair, and nails; health care; and education.

Figure C-4.
Demographic characteristics of workers in study-related industries and all industries, California and the United States, 2012-2016

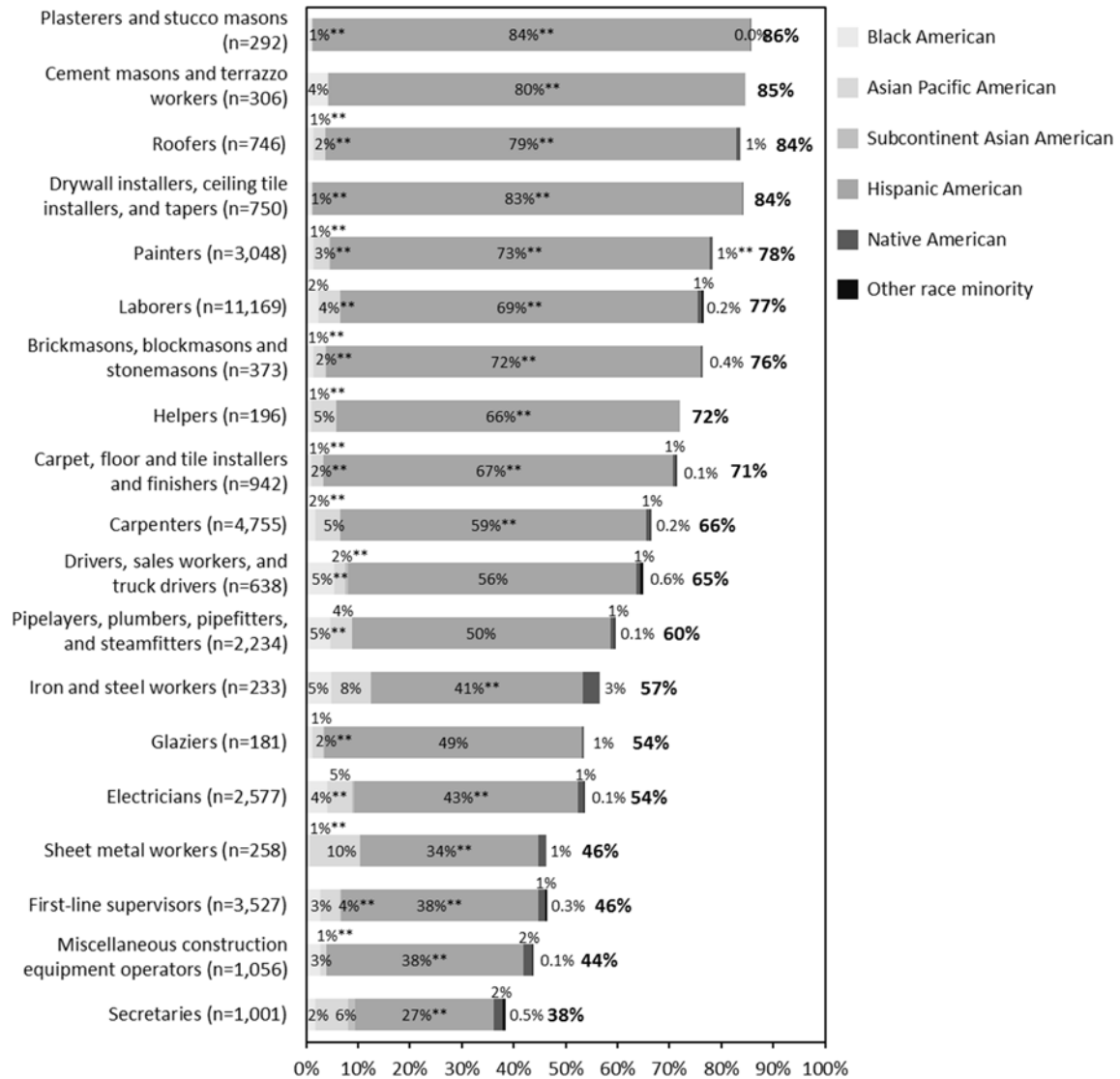
California	All Industries (n= 909,470)	Construction (n= 50,784)	Professional Services (n= 9,601)	Goods & Services (n= 2,873)
Race/ethnicity				
Black American	6.0 %	2.7 % **	3.1 % **	23.6 % **
Asian Pacific American	13.7 %	5.0 % **	18.9 % **	13.1 %
Subcontinent Asian American	2.1 %	0.3 % **	2.8 % **	1.4 % **
Hispanic American	36.7 %	51.4 % **	14.3 % **	34.9 %
Native American	0.9 %	0.9 %	0.9 %	1.1 %
Other race minority	0.3 %	0.2 % **	0.2 %	0.3 %
Total minority	59.6 %	60.5 %	40.2 %	74.4 %
Non-Hispanic white	40.4 %	39.5 % **	59.8 % **	25.6 % **
Total	100.0 %	100.0 %	100.0 %	100.0 %
Gender				
Women	45.7 %	8.8 % **	27.2 % **	35.1 % **
Men	54.3 %	91.2 % **	72.8 % **	64.9 % **
Total	100.0 %	100.0 %	100.0 %	100.0 %
United States	All Industries (n= 7,643,801)	Construction (n= 461,045)	Professional Services (n= 77,108)	Goods & Services (n= 27,156)
Race/ethnicity				
Black American	12.3 %	5.9 % **	5.2 % **	31.8 % **
Asian Pacific American	4.7 %	1.7 % **	6.0 % **	3.4 % **
Subcontinent Asian American	1.4 %	0.3 % **	2.0 % **	1.2 % **
Hispanic American	16.4 %	26.2 % **	8.1 % **	15.0 % **
Native American	1.2 %	1.3 % **	0.8 % **	1.2 %
Other race minority	0.2 %	0.2 %	0.2 %	0.4 % **
Total minority	36.1 %	35.7 %	22.2 %	52.8 %
Non-Hispanic white	63.9 %	64.3 % **	77.8 % **	47.2 % **
Total	100.0 %	100.0 %	100.0 %	100.0 %
Gender				
Women	47.2 %	9.1 % **	25.5 % **	38.4 % **
Men	52.8 %	90.9 % **	74.5 % **	61.6 % **
Total	100.0 %	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between workers in each study-related industry and workers in all industries is statistically significant at the 95% confidence level.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-4 indicates that compared to all industries considered together, there are smaller percentages of Black Americans, Asian Pacific Americans, Subcontinent Asian Americans, other race minorities, and women working in the California construction industry. There is also a smaller percentage of Hispanic Americans working in the professional services industry and smaller percentages of Subcontinent Asian Americans and women working in the goods and services industry.

Figure C-5.
Percent representation of minorities in selected construction occupations in California, 2012-2016



Note: ** Denotes that the difference in proportions between minority workers in the specified occupation and all construction occupations considered together is statistically significant at the 95% confidence level.

The representation of minorities among all California construction workers is 3% for Black American, 5% for Asian Pacific American, 51% for Hispanic Americans, 1% for Native American, and 61% for all minorities considered together.

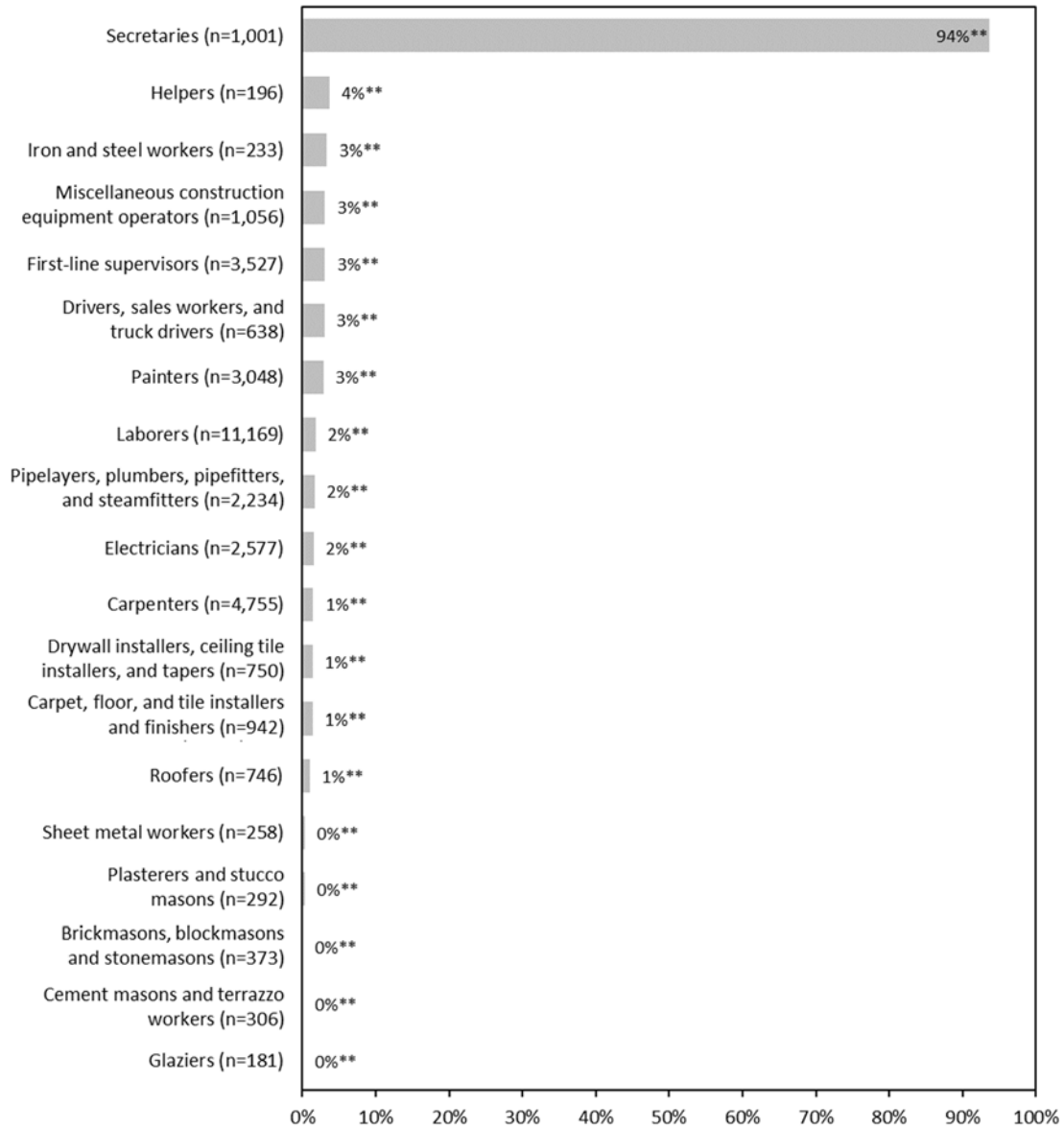
"Other race minority" includes Census respondents who do not identify with the racial categories provided by the U.S. Census Bureau.

Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2012-2016 ACS 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-5 indicates that the construction occupations with the highest representations of minority workers in the California marketplace are plasterers and stucco masons; cement masons and terrazzo workers; and roofers.

Figure C-6.
Percent representation of women in selected construction occupations in California, 2012-2016



Note: ** Denotes that the difference in proportions between women workers in the specified occupation and all construction occupations considered together is statistically significant at the 95% confidence level.

The representation of women among all California construction workers is 9%.

Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2012-2016 ACS 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-6 indicates that the construction occupations in the California marketplace with the highest representations of women workers are secretaries; helpers; and iron and steel workers.

**Figure C-7.
Percentage of
workers who worked
as a manager in each
study-related
industry, California
and the United
States, 2012-2016**

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center:
<http://usa.ipums.org/usa/>.

California	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	5.4 % **	4.5 %	1.3 %
Asian Pacific American	10.6 % **	2.1 % **	1.8 %
Subcontinent Asian American	15.9 %	4.1 %	1.2 %
Hispanic American	2.7 % **	2.6 % **	1.2 %
Native American	11.1 %	4.3 %	13.4 %
Other race minority	11.0 %	3.1 %	0.0 %
Non-Hispanic white	13.7 %	4.4 %	1.9 %
Gender			
Women	7.6 %	2.0 % **	1.3 %
Men	7.7 %	4.4 %	1.7 %
All individuals	7.7 %	3.7 %	1.6 %
United States	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	4.2 % **	2.5 % **	0.8 % **
Asian Pacific American	9.1 %	2.1 % **	1.6 %
Subcontinent Asian American	12.3 % **	4.6 %	0.9 %
Hispanic American	2.8 % **	2.5 % **	1.1 % **
Native American	5.2 % **	2.5 % **	1.8 %
Other race minority	6.2 % **	3.6 %	0.0 %
Non-Hispanic white	9.3 %	4.1 %	1.8 %
Gender			
Women	6.4 % **	2.1 % **	1.0 % **
Men	7.3 %	4.4 %	1.5 %
All individuals	7.3 %	3.8 %	1.3 %

Figure C-7 indicates that, compared to non-Hispanic white Americans, smaller percentages of Black Americans, Asian Pacific Americans, and Hispanic Americans work as managers in the California construction industry. In addition, small percentages of Asian Pacific Americans and Hispanic Americans than non-Hispanic white Americans work as managers in the California professional services industry. A small percentage of women than men work as managers in the California professional services industry.

Figure C-8.
Mean annual wages,
California and the United
States, 2012-2016

Note:

The sample universe is all non-institutionalized, employed individuals aged 25-64 that are not in school, the military, or self-employed.

**/++ Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 95% confidence level for California and the United States as a whole, respectively.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

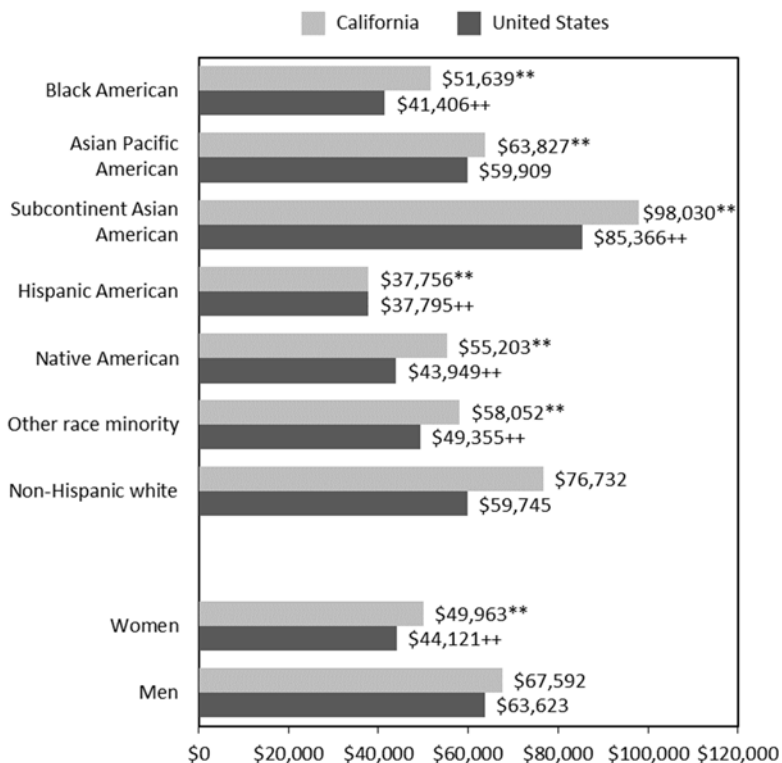


Figure C-8 indicates that, compared to non-Hispanic white Americans, all minorities except Subcontinent Asian Americans have lower mean annual wages than non-Hispanic white Americans in California. In addition, non-Hispanic white women exhibit lower mean annual wages than men in California.

**Figure C-9.
Predictors of annual wages
(regression), California, 2012-2016**

Note:

The regression includes 454,262 observations.

The sample universe is all non-institutionalized, employed individuals aged 25-64 that are not in school, the military, or self-employed.

For ease of interpretation, the exponentiated form of the coefficients is displayed in the figure.

*, ** Denotes statistical significance at the 90% and 95% confidence levels, respectively.

The referent for each set of categorical variables is as follows: non-Hispanic whites for the race variables, high school diploma for the education variables, manufacturing for industry variables.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Exponentiated Coefficient
Constant	6094.541 **
Black American	0.824 **
Asian Pacific American	0.878 **
Subcontinent Asian American	0.962 **
Hispanic American	0.845 **
Native American	0.889 **
Other minority group	0.892 **
Women	0.806 **
Less than high school education	0.872 **
Some college	1.223 **
Four-year degree	1.724 **
Advanced degree	2.358 **
Disabled	0.788 **
Military experience	1.012 *
Speaks English well	1.393 **
Age	1.072 **
Age-squared	0.999 **
Married	1.123 **
Children	1.004 **
Number of people over 65 in household	0.908 **
Public sector worker	1.135 **
Manager	1.302 **
Part time worker	0.376 **
Extraction and agriculture	0.728 **
Construction	0.937 **
Wholesale trade	0.911 **
Retail trade	0.766 **
Transportation, warehouse, & information	1.032 **
Professional services	1.045 **
Education	0.669 **
Health care	1.028 **
Other services	0.734 **
Public administration and social services	0.800 **

Figure C-9 indicates that, compared to being a non-Hispanic white American in California, being Black American, Asian Pacific American, Subcontinent Asian American, Hispanic American, or other race minority is related to lower annual wages, even after accounting for various other personal characteristics. (For example, the model indicates that being Black American is associated with making approximately \$0.82 for every dollar that a non-Hispanic white American makes, all else being equal.) In addition, being a woman is related to lower annual wages compared to being a man in California, even after accounting for various other personal characteristics.

**Figure C-10.
Predictors of annual wages
(regression), United States, 2012-2016**

Note:

The regression includes 4,032,836 observations.

The sample universe is all non-institutionalized, employed individuals aged 25-64 that are not in school, the military, or self-employed.

For ease of interpretation, the exponentiated form of the coefficients is displayed in the figure.

** Denotes statistical significance at the 95% confidence level.

The referent for each set of categorical variables is as follows: non-Hispanic whites for the race variables, male for the gender variable, high school diploma for the education variables, manufacturing for industry variables, and Northeast for the region variables.

Source:

BBC Research & Consulting from 2011-2015 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Exponentiated Coefficient
Constant	7166.063 **
Black American	0.846 **
Asian American	0.988 **
Hispanic American	0.926 **
Native American	0.889 **
Other minority group	0.929 **
Women	0.779 **
Less than high school education	0.853 **
Some college	1.199 **
Four-year degree	1.677 **
Advanced degree	2.326 **
Disabled	0.792 **
Military experience	0.994 **
Speaks English well	1.347 **
Age	1.058 **
Age-squared	0.999 **
Married	1.117 **
Children	1.011 **
Number of people over 65 in household	0.908 **
Midwest	0.881 **
South	0.895 **
West	0.986 **
Public sector worker	1.109 **
Manager	1.306 **
Part time worker	0.365 **
Extraction and agriculture	0.963 **
Construction	0.936 **
Wholesale trade	0.974 **
Retail trade	0.756 **
Transportation, warehouse, & information	1.041 **
Professional services	1.073 **
Education	0.662 **
Health care	1.008 **
Other services	0.716 **
Public administration and social services	0.832 **

Figure C-10 indicates that, compared to being a non-Hispanic white American in the United States, being Black American, Asian American, Hispanic American, Native American, or other race minority is related to lower annual wages, even after accounting for various other personal characteristics. (For example, the model indicates that being Black American is associated with making approximately \$0.85 for every dollar that a non-Hispanic white American makes, all else being equal.) In addition, being a woman is related to lower annual wages, compared to being a man, even after accounting for various other personal characteristics.

Figure C-11.
Home Ownership Rates,
California and the United
States, 2012-2016

Note:

The sample universe is all households.

******, **++** Denotes statistically significant differences from non-Hispanic whites at the 95% confidence level for California and the United States as a whole, respectively.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

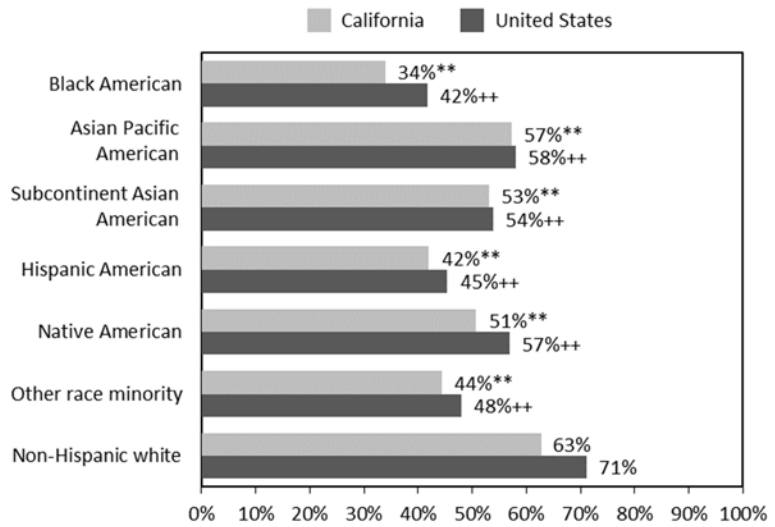


Figure C-11 indicates that, compared to non-Hispanic white Americans, smaller percentages of Black Americans, Asian Pacific Americans, Subcontinent Asian Americans, Hispanic Americans, Native Americans, and other race minorities own homes in California.

Figure C-12.
Median home values,
California and the United
States, 2012-2016

Note:
 The sample universe is all owner-occupied housing units.

Source:
 BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

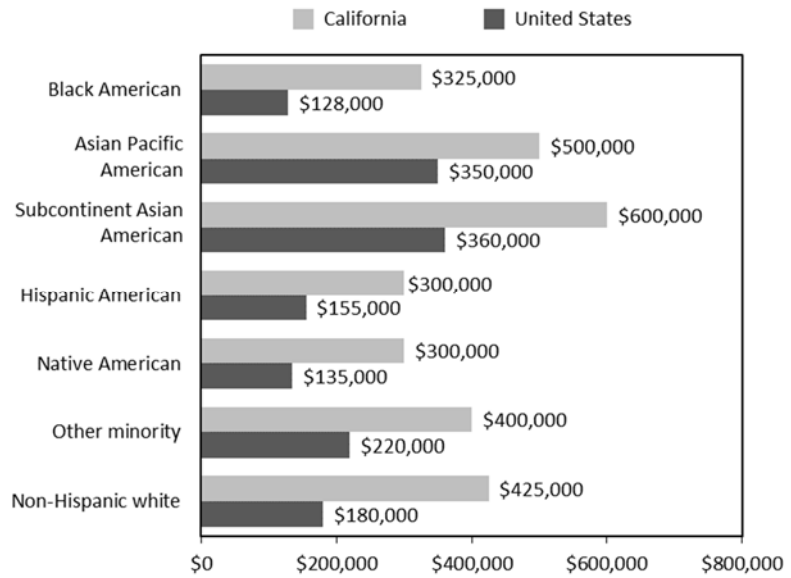


Figure C-12 indicates that Black American, Hispanic American, Native American and other minority homeowners in California own homes of lower median value than non-Hispanic white American homeowners. In contrast, Asian Pacific American and Subcontinent Asian American homeowners in California own homes of greater value than non-Hispanic white American homeowners.

Figure C-13.
Denial rates of conventional
purchase loans for high-
income households, California
and the United States, 2016

Note:

High-income borrowers are those households with 120% or more of the HUD area median family income (MFI).

Source:

FFIEC HMDA data 2016. The raw data extract was obtained from the Consumer Financial Protection Bureau HMDA data tool: <http://www.consumerfinance.gov/hmda/expl ore>.

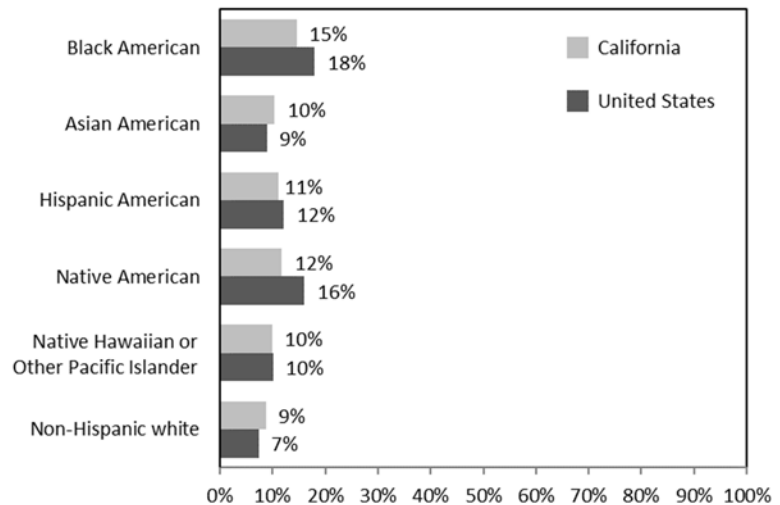


Figure C-13 indicates that in 2016, Black Americans, Hispanic Americans, and Native Americans in California were denied conventional home purchase loans at higher rates than non-Hispanic white Americans.

Figure C-14.
Percent of conventional home purchase loans that were subprime, California and the United States, 2016

Source:
 FFIEC HMDA data 2016. The raw data extract was obtained from the Consumer Financial Protection Bureau HMDA data tool: <http://www.consumerfinance.gov/hmda/expl>ore.

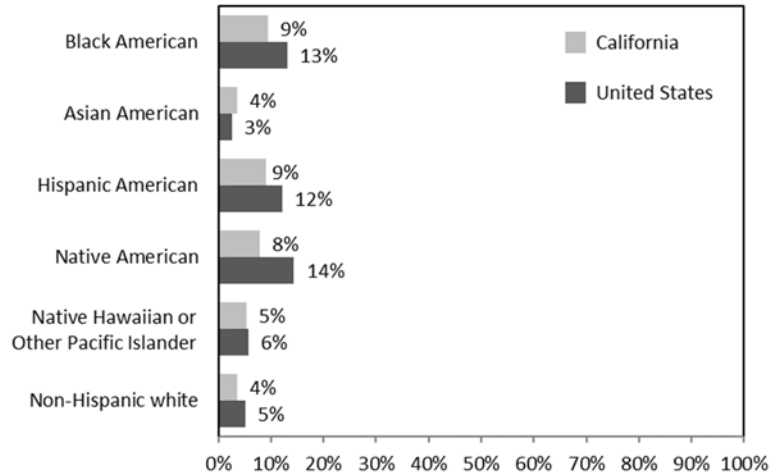


Figure C-14 indicates that in 2016, Black Americans, Hispanic Americans, and Native Americans in California were awarded subprime conventional home purchase loans at greater rates than non-Hispanic white Americans.

**Figure C-15.
Business loan denial
rates, Pacific Division and
the United States, 2003**

Note:

** Denotes that the difference in proportions from businesses owned by non-Hispanic white men is statistically significant at the 95% confidence level.

The Pacific Division consists of Alaska, California, Hawaii, Oregon, and Washington.

Source:

BBC Research & Consulting from 2003 Survey of Small Business Finance.

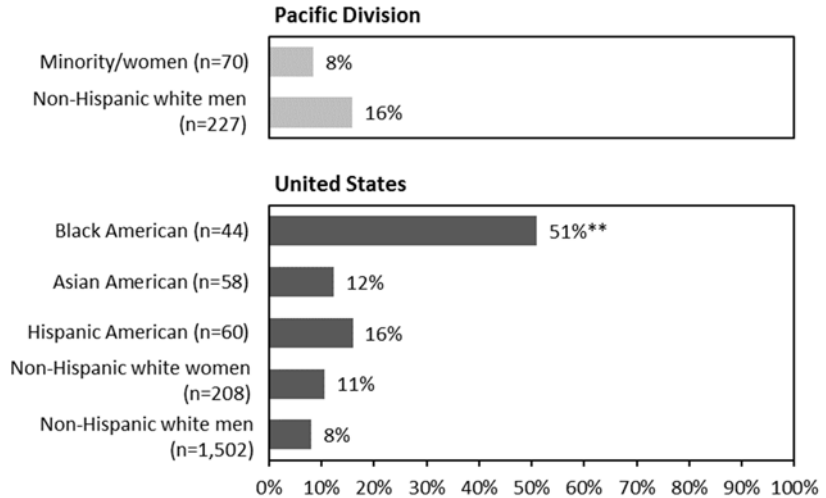


Figure C-15 indicates that, in 2003, minority- and woman-owned businesses in the Pacific Division were denied business loans at a rate that did not differ from that of businesses owned by non-Hispanic white men. In the United States as a whole, Black American-owned businesses were denied business loans at a greater rate than businesses owned by non-Hispanic white men.

Figure C-16.
Businesses that did not
apply for loans due to fear
of denial, Pacific Division
and the United States,
2003

Note:

** Denotes that the difference in proportions from businesses owned by non-Hispanic white men is statistically significant at the 95% confidence level.

The Pacific Division consists of Alaska, California, Hawaii, Oregon, and Washington.

Source:

BBC Research & Consulting from 2003 Survey of Small Business Finance.

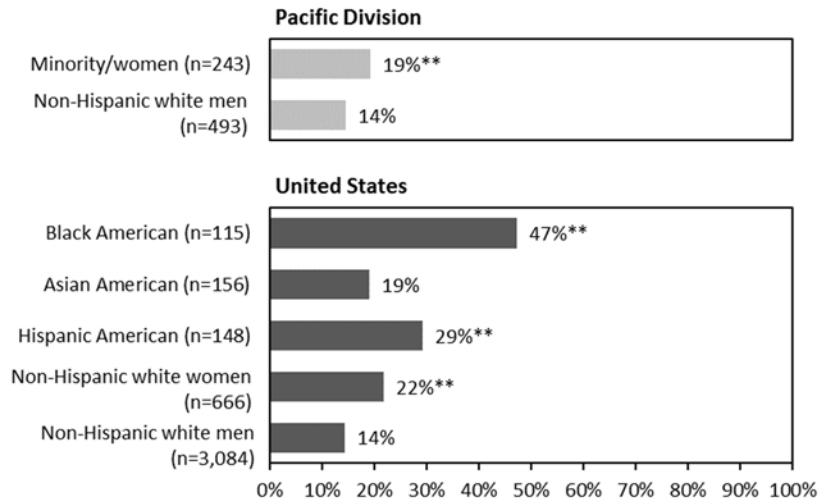


Figure C-16 indicates that, in 2003, minority- and woman-owned businesses in the Pacific Division were more likely than businesses owned by non-Hispanic white men to not apply for business loans due to a fear a denial. In the United States as a whole, Black American-, Hispanic American-, and non-Hispanic white woman-owned businesses were more likely than businesses owned by non-Hispanic white men to not apply for business loans due to a fear of denial.

Figure C-17.
Mean values of approved business
loans, Pacific Division and the
United States, 2003

Note:

** Denotes statistically significant differences from non-Hispanic white men (for minority groups and women) at the 95% confidence level.

The Pacific Division consists of Alaska, California, Hawaii, Oregon, and Washington.

Source:

BBC Research & Consulting from 2003 Survey of Small Business Finance.

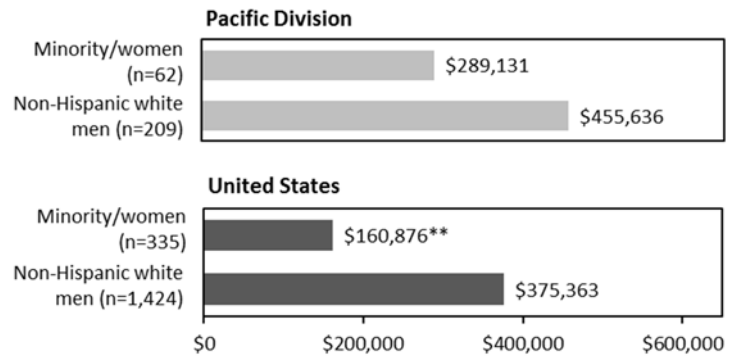


Figure C-17 indicates that, in 2003, minority- and woman-owned businesses in the United States who received business loans were approved for loans that were worth less than loans that businesses owned by non-Hispanic white men received.

Figure C-18.
Self-employment
rates in study-
related industries,
Virginia Beach and
the United States,
2012-2016

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between women and men) is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

California	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	19.7 % **	9.6 % **	0.1 % **
Asian Pacific American	28.0 %	9.7 % **	8.4 %
Subcontinent Asian American	25.6 %	9.7 % **	3.6 %
Hispanic American	19.0 % **	9.9 % **	0.9 % **
Native American	25.2 % *	17.1 %	2.2 %
Other minority group	20.9 % **	12.0 %	0.0 %
Non-Hispanic white	29.7 %	20.2 %	4.0 %
Gender			
Women	13.1 % **	11.7 % **	2.2 %
Men	24.8 %	17.7 %	2.7 %
All individuals	23.8 %	16.1 %	2.5 %
United States	Construction	Professional Services	Goods & Services
Race/ethnicity			
Black American	17.8 % **	6.9 % **	1.1 % **
Asian Pacific American	23.2 % **	7.4 % **	4.3 % **
Subcontinent Asian American	22.9 % **	9.2 % **	6.0 % *
Hispanic American	17.7 % **	9.1 % **	1.6 % **
Native American	18.4 % **	8.8 % **	0.9 % **
Other minority group	23.1 %	11.5 %	0.6 % **
Non-Hispanic white	26.1 %	12.9 %	2.3 %
Gender			
Women	16.1 % **	7.4 % **	1.6 % **
Men	24.0 %	13.3 %	2.1 %
All individuals	23.2 %	11.8 %	1.9 %

Figure C-18 indicates that Black Americans and Hispanic working across all relevant industries in California (i.e., construction; professional services; and goods and services) exhibited lower rates of self-employment (i.e., business ownership) than non-Hispanic white Americans. Asian Pacific Americans and Subcontinent Asian Americans working in professional services exhibited lower rates of self-employment than non-Hispanic white Americans. Native Americans and other minorities working in construction exhibited lower rates of self-employment than non-Hispanic white Americans. In addition, women working across all relevant industries in California exhibited lower rates of self-employment than men.

Figure C-19.
Predictors of business ownership in
construction (regression), California, 2012-
2016

Note:

The regression included 44,604 observations.

** Denotes statistical significance at the 95% confidence level.

The referent for each set of categorical variables is as follows: high school diploma for the education variables and non-Hispanic whites for the race variables.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa>.

Variable	Coefficient
Constant	-2.0197 **
Age	0.0430 **
Age-squared	-0.0002 **
Married	-0.0241
Disabled	-0.0194
Number of children in household	-0.0011
Number of people over 65 in household	0.0448 **
Owns home	-0.2348 **
Home value (\$000s)	0.0002 **
Monthly mortgage payment (\$000s)	0.0676 **
Interest and dividend income (\$000s)	0.0023 **
Income of spouse or partner (\$000s)	0.0005 **
Speaks English well	-0.0402
Less than high school education	0.0263
Some college	0.0090
Four-year degree	0.0119
Advanced degree	-0.2094 **
Black American	-0.2275 **
Asian Pacific American	-0.0444
Subcontinent Asian American	-0.0869
Hispanic American	-0.2262 **
Native American	-0.0313
Other minority group	-0.1779
Women	-0.5752 **

Figure C-19 indicates that, compared to being a non-Hispanic white American, being a Black American or Hispanic American in California is related to a lower likelihood of owning a construction business, even after accounting for various other personal characteristics. In addition, being a woman in California (as compared to a man) is related to a lower likelihood of owning a construction business, even after accounting for various other personal characteristics.

Figure C-20.
Disparities in business ownership rates for California construction workers, 2012-2016

Group	Self-Employment Rate		Disparity Index (100 = Parity)
	Actual	Benchmark	
Black American	20.7%	26.6%	78
Hispanic American	19.0%	24.8%	77
Non-Hispanic white women	15.8%	33.3%	47

Note: The benchmark figure can only be estimated for records with observed (rather than imputed) dependent variable. Thus, the study team made comparisons between actual and benchmark self-employment rates only for the subset of the sample for which the dependent variable was observed.

Analyses are limited to those groups that showed negative coefficients that were statistically significant in the regression model.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-20 indicates that Black Americans own construction businesses in California at a rate that is 78 percent that of similarly-situated non-Hispanic white Americans (i.e., non-Hispanic white Americans who share the same personal characteristics), and Hispanic Americans do so at a rate that is 77 percent that of similarly-situated non-Hispanic white Americans. Similarly, non-Hispanic white women own construction businesses in California at a rate that is 47 percent that of similarly-situated non-Hispanic white men.

**Figure C-21.
Predictors of business ownership in professional services (regression), California, 2012-2016**

Note:

The regression included 8,763 observations.

** Denotes statistical significance at the 95% confidence level.

The referent for each set of categorical variables is as follows: high school diploma for the education variables and non-Hispanic whites for the race variables.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient
Constant	-2.9107 **
Age	0.0433 **
Age-squared	-0.0001
Married	-0.0220
Disabled	0.0187
Number of children in household	0.0278
Number of people over 65 in household	0.0270
Owns home	-0.1892 **
Home value (\$000s)	0.0002 **
Monthly mortgage payment (\$000s)	0.0281
Interest and dividend income (\$000s)	-0.0003
Income of spouse or partner (\$000s)	0.0004
Speaks English well	0.1080
Less than high school education	0.1600
Some college	0.0704
Four-year degree	0.1349
Advanced degree	0.1886
Black American	-0.3881 **
Asian Pacific American	-0.3792 **
Subcontinent Asian American	-0.3603 **
Hispanic American	-0.1944 **
Native American	0.0806
Other minority group	-0.2692
Women	-0.1980 **

Figure C-21 indicates that, compared to being a non-Hispanic white American, being a Black American, Asian Pacific American, Subcontinent Asian American, or Hispanic American in California is related to a lower likelihood of owning a professional services business, even after accounting for various other personal characteristics. In addition, being a woman in California (as compared to a man) is related to a lower likelihood of owning a professional services business, even after accounting for various other personal characteristics.

Figure C-22.
Disparities in business ownership rates for California professional services workers, 2012-2016

Group	Self-Employment Rate		Disparity Index (100 = Parity)
	Actual	Benchmark	
Black American	9.1%	16.1%	57
Asian Pacific American	9.7%	18.4%	53
Subcontinent Asian American	10.6%	16.8%	63
Hispanic American	9.9%	14.9%	67
Non-Hispanic white women	14.8%	19.9%	74

Note: The benchmark figure can only be estimated for records with observed (rather than imputed) dependent variable. Thus, the study team made comparisons between actual and benchmark self-employment rates only for the subset of the sample for which the dependent variable was observed.

Analyses are limited to those groups that showed negative coefficients that were statistically significant in the regression model.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-22 indicates that Black Americans own professional services businesses in California at a rate that is 57 percent that of similarly-situated non-Hispanic white Americans (i.e., non-Hispanic white Americans who share the same personal characteristics), Asian Pacific Americans do so at a rate that is 53 percent that of similarly-situated non-Hispanic white Americans, Subcontinent Asian Americans do so at a rate that is 63 percent that of similarly-situated non-Hispanic white Americans, and Hispanic Americans do so at a rate that is 67 percent that of similarly-situated non-Hispanic white Americans. Similarly, non-Hispanic white women own professional services businesses in California at a rate that is 74 percent that of similarly-situated non-Hispanic white men.

Figure C-23.
Predictors of business ownership in goods and services (regression), California, 2012-2016

Note:

The regression included 2,459 observations.

** Denotes statistical significance at the 95% confidence level.

The referent for each set of categorical variables variable is as follows: high school diploma for the education variables and non-Hispanic whites for the race variables.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient
Constant	-1.6248
Age	0.0267
Age-squared	-0.0003
Married	0.0215
Disabled	-0.4471
Number of children in household	-0.0150
Number of people over 65 in household	0.1546
Owns home	-0.1431
Home value (\$000s)	0.0003
Monthly mortgage payment (\$000s)	0.0300
Interest and dividend income (\$000s)	-0.0115
Income of spouse or partner (\$000s)	0.0010
Speaks English well	-0.7816 **
Less than high school education	0.2768
Some college	-0.0760
Four-year degree	-0.3093
Advanced degree	0.0546
Black American	-1.1572 **
Asian Pacific American	0.2413
Subcontinent Asian American	0.0000 **
Hispanic American	-0.9230 **
Native American	-0.1448
Other minority group	0.0000 **
Women	0.0738

Figure C-23 indicates that, compared to being a non-Hispanic white American, being a Black American or Hispanic American in California is related to a lower likelihood of owning a goods and services business, even after accounting for various other personal characteristics.

Figure C-24.
Disparities in business ownership rates for California goods and services workers, 2012-2016

Group	Self-Employment Rate		Disparity Index (100 = Parity)
	Actual	Benchmark	
Black American	0.2%	4.0%	4
Hispanic American	0.7%	4.5%	16

Note: The benchmark figure can only be estimated for records with observed (rather than imputed) dependent variable. Thus, the study team made comparisons between actual and benchmark self-employment rates only for the subset of the sample for which the dependent variable was observed.

Analyses are limited to those groups that showed negative coefficients that were statistically significant in the regression model.

Source: BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Figure C-24 indicates that Black Americans own goods and services businesses in California at a rate that is 4 percent that of similarly-situated non-Hispanic white Americans (i.e., non-Hispanic white Americans who share the same personal characteristics), and Hispanic Americans do so at a rate that is 16 percent that of similarly-situated non-Hispanic white Americans.

Figure C-25.
Rates of business closure,
expansion, and contraction,
California and the United States,
2002-2006

Note:

Data include only non-publicly held businesses.

Equal Gender Ownership refers to those businesses for which ownership is split evenly between women and men.

Statistical significance of these results cannot be determined, because sample sizes were not reported.

Source:

Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Lowrey, Ying. 2014. "Gender and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

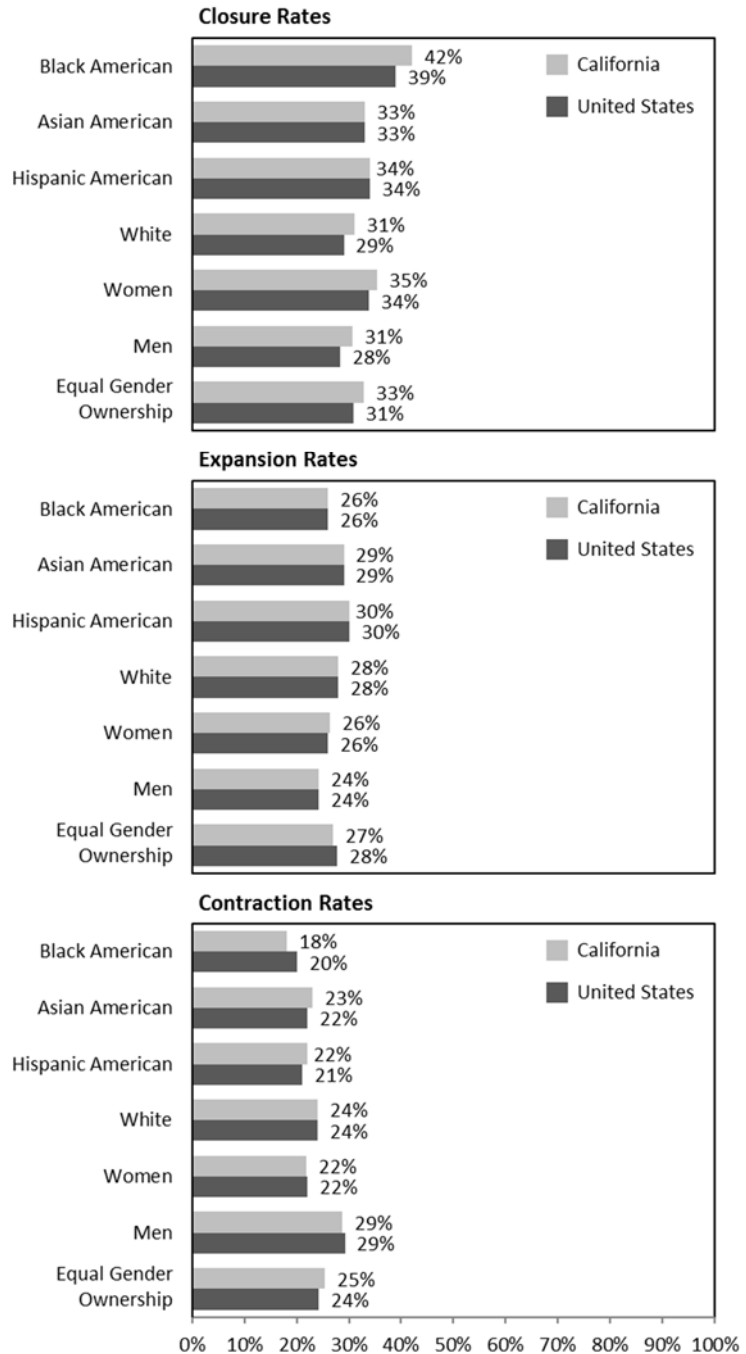


Figure C-25 indicates that Black American-owned businesses in California show higher closure rates than white American-owned businesses. Woman-owned businesses in California show higher closure rates than businesses owned by men.

Figure C-26.
Mean annual business
receipts (in thousands),
California and the United
States, 2012

Note:

Includes employer and non-employer firms.
 Does not include publicly-traded companies
 or other firms not classifiable by
 race/ethnicity and gender.

Source:

2012 Survey of Business Owners, part of the
 U.S. Census Bureau's 2012 Economic Census.

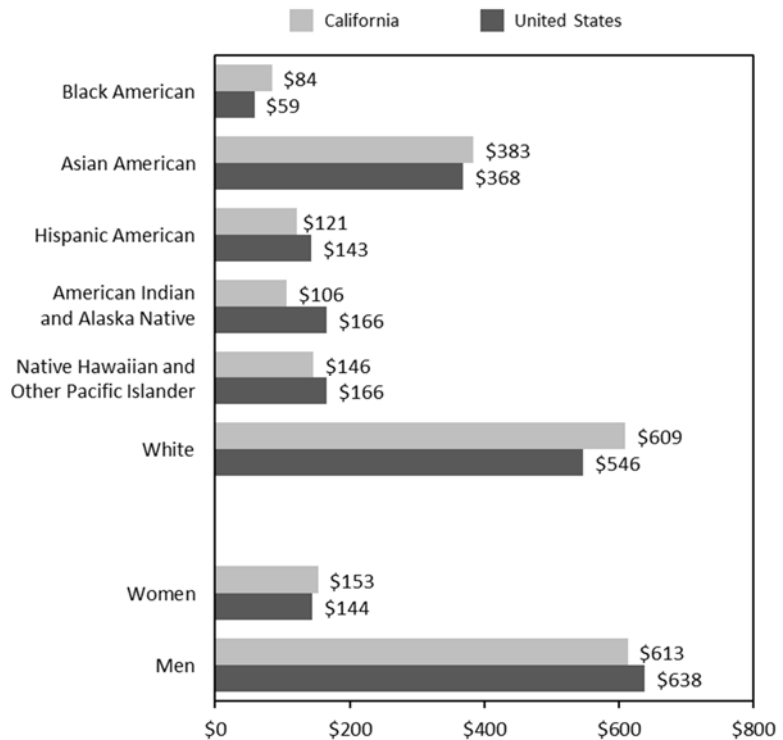


Figure C-26 indicates that, in 2012, Black American-; Asian American-; Hispanic American-; American Indian and Alaskan Native-; and Native Hawaiian and other Pacific Islander-owned businesses in California showed lower mean annual business receipts than non-Hispanic white American-owned businesses. In addition, woman-owned businesses in the region showed lower mean annual business receipts than businesses owned by men.

Figure C-27.
Mean annual business owner
earnings, California and the
United States, 2012-2016

Note:

The sample universe is business owners age 16 and older who reported positive earnings. All amounts in 2016 dollars.

** , ++ Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 95% confidence level for California and the United States as a whole, respectively.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

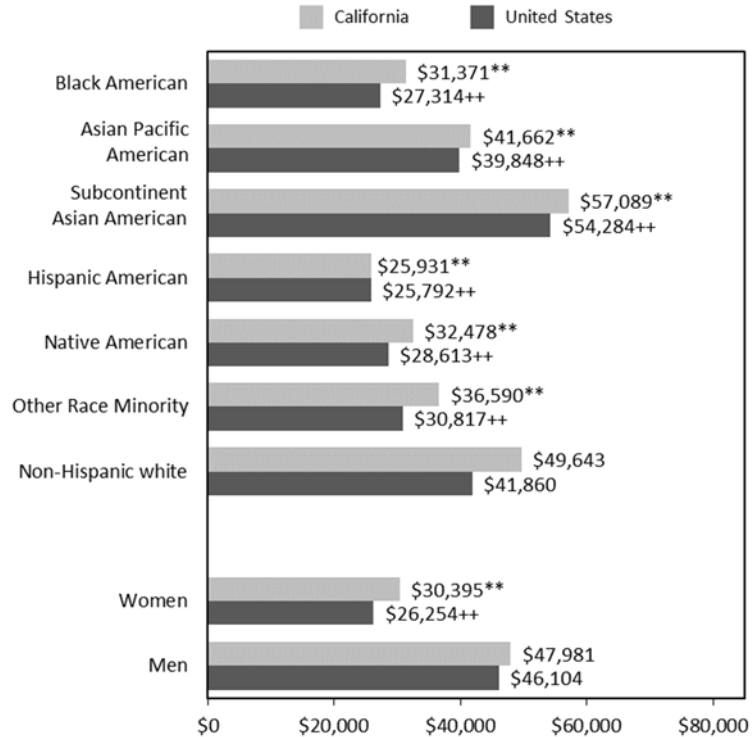


Figure C-27 indicates that the owners of Black American-, Asian Pacific American-, Hispanic American-, Native American-, and other race minority-owned businesses in California earn less on average than the owners of non-Hispanic white American-owned businesses. In addition, the owners of woman-owned businesses in California earn less on average than the owners of businesses owned by men.

**Figure C-28.
Predictors of business owner earnings
(regression), California, 2012-2016**

Note:

The regression includes 65,001 observations.

For ease of interpretation, the exponentiated form of the coefficients is displayed in the figure.

The sample universe is business owners age 16 and older who reported positive earnings. All amounts in 2016 dollars.

** Denotes statistical significance at the 95% confidence level.

The referent for each set of categorical variables is as follows: high school diploma for the education variables and non-Hispanic whites for the race variables.

Source:

BBC Research & Consulting from 2012-2016 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Exponentiated Coefficient
Constant	629.187 **
Age	1.140 **
Age-squared	0.999 **
Married	1.197 **
Speaks English well	1.243 **
Disabled	0.613 **
Less than high school	0.806 **
Some college	1.075 **
Four-year degree	1.337 **
Advanced degree	1.851 **
Black American	0.756 **
Asian Pacific American	0.939 **
Subcontinent Asian American	1.261 **
Hispanic American	0.956 **
Native American	0.687 **
Other race minority	0.784
Women	0.580 **

Figure C-28 indicates that, compared to being the owner of a non-Hispanic white American-owned business in California, being an owner of a Black American-, Asian Pacific American-, Hispanic American-, or Native American-owned business is related to lower earnings, even after accounting for various other business and personal characteristics. In addition, compared to being the owner of a male-owned business in California, being the owner of a woman-owned business is related to lower earnings, even after accounting for various other business and personal characteristics.

**Figure C-29.
Predictors of business owner earnings
(regression), United States, 2012-2016**

Note:

The regression includes 436,401 observations.

For ease of interpretation, the exponentiated form of the coefficients is displayed in the figure.

The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 2015 dollars.

*, ** Denotes statistical significance at the 90% and 95% confidence level, respectively.

The referent for each set of categorical variables is as follows: high school diploma for the education variables and non-Hispanic whites for the race variables.

Source:

BBC Research & Consulting from 2011-2015 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Exponentiated Coefficient
Constant	531.150 **
Age	1.149 **
Age-squared	0.999 **
Married	1.241 **
Speaks English well	1.142 **
Disabled	0.580 **
Less than high school	0.749 **
Some college	1.041 **
Four-year degree	1.312 **
Advanced degree	1.894 **
Black American	0.818 **
Asian Pacific American	1.088 **
Subcontinent Asian American	1.162 **
Hispanic American	1.041 **
Native American	0.681 **
Other race minority	1.115 *
Women	0.533 **

Figure C-29 indicates that, compared to being the owner of a non-Hispanic white American-owned business in the United States, being an owner of a Black American- or Native American-owned business is related to lower earnings, even after accounting for various other business and personal characteristics. In addition, compared to being the owner of a male-owned business in the United States, being the owner of a woman-owned business is related to lower earnings, even after accounting for various other business and personal characteristics.

APPENDIX D.

Qualitative Information about Marketplace Conditions

APPENDIX D.

Qualitative Information about Marketplace Conditions

Appendix D presents qualitative information that the study team collected and analyzed as part of the disparity study and summarizes key themes that emerged from interviews and public meetings. Appendix D is organized according to the following sections:

A. Introduction describes the process for gathering and analyzing the information summarized in Appendix D. *(page 2)*

B. Background on the Construction; Professional Services; and Goods and Other Services Industries summarizes information about how businesses become established, the types of contracts they work on, and what products and services they provide. *(page 3)*

C. Keys to Business Success summarizes information about certain barriers to doing business and keys to success, including access to financing, bonding, and insurance. *(page 47)*

D. Doing Business as a Prime Contractor or as a Subcontractor summarizes information about the mix of businesses' prime contract and subcontract work and how they obtain that work. *(page 68)*

E. Experience Doing Business with Public Agencies presents information about successes and potential barriers to doing work in general and specifically for government agencies. *(page 90)*

F. Other Allegations of Unfair Treatment presents information about any experiences with unfair treatment such as bid shopping; treatment during performance of work; and double-standards for minority- or woman-owned businesses. *(page 132)*

G. Insights Regarding any Race-/Ethnicity- or Gender-based Discrimination includes additional information concerning potential race-/ethnicity- or gender-based discrimination. Topics include stereotypical attitudes about minorities and women and allegations of a "good ol' boy" network that adversely affects opportunities for minority- and woman-owned businesses. *(page 145)*

H. Insights Regarding Business Assistance Programs, Changes in Contracting Processes, or Any Other Neutral Measures presents information about business assistance programs; efforts to open contracting processes; and other steps to remove barriers for all businesses or small businesses. *(page 157)*

I. Insights Regarding DBE or SB/DVBE Programs or Any Other Race-/Ethnicity- or Gender-based Measures presents information about the Federal Disadvantaged Business Enterprise (DBE) Program and the State of California's Small Business and Disabled Veteran Business Enterprise

(SB/DVBE) Program, including any impacts of DBE or SB/DVBE contract goals on other businesses. It also presents information about advantages and disadvantages that subcontractors experience because of their certification as DBEs or SB/DVBEs. *(page 189)*

J. DBE and SB/DVBE Certification presents comments on the processes for DBE and SB/DVBE certification and other certifications. *(page 211)*

K. Any Other Insights and Recommendations Concerning Caltrans Contracting or DBE/SB/DVBE Programs presents suggestions for Caltrans to improve implementations of their small business, DBE, or DVBE programs. It also presents other related insights and recommendations. *(page 222)*

A. Introduction

As part of the disparity study process, business owners and managers; trade association representatives; and other interested parties had the opportunity to discuss their experiences working in the California area and provide public testimony. The study team incorporated comments from the 2019 California Department of Transportation (Caltrans) Federal Transit Authority Disparity Study, the 2016 Caltrans Federal Highway Authority Disparity Study, and the 2018 Los Angeles County Metropolitan Transportation Authority (LA Metro) Disparity Study. The study team collected comments through a number of channels:

- In-depth interviews;
- Availability survey;
- Testimony from public forums; and
- Written testimony.

In-depth interviews. The study team conducted in-depth interviews with 18 California businesses as part of the Caltrans FTA Disparity Study, 28 interviews as part of the LA Metro Disparity Study, and 59 interviews as part of the Caltrans FHWA Disparity Study, and two trade associations that participated in the FHWA Disparity study and the LA Metro Disparity study. The interviews included discussions about interviewees' perceptions and anecdotes regarding the local contracting industry; the Federal DBE Program; and experiences working or attempting to work with California state agencies. Interviews were conducted by PDA Consulting Group—a Cerritos-based DBE-certified consulting firm, GCAP Services—a Costa Mesa-based DBE-certified consulting firm, and L. Luster & Associates – an Oakland based DBE-certified consulting firm.

Interviewees included individuals representing construction businesses, professional services businesses, and trade associations. The study team identified interview participants primarily from a random sample of businesses that was stratified by business type; location; and, the race/ethnicity and gender of the business owners. The study team conducted most of the interviews with the owner, president, chief executive officer, or another high-level manager of the business or association. Some of the businesses that the study team interviewed indicated that they work exclusively (or, at least primarily) as prime contractors or subcontractors, and some indicated that they work as both. All of the businesses that participated in the interviews conduct work in California.

All interviewees are identified in Appendix D by random interviewee numbers and the prefix “FTA,” “FHWA,” or “LAM” for the Caltrans FTA study, the Caltrans FHWA study, and the LA Metro study, respectively. The interview numbers for each study are distinguishable by the interview number prefix. The FTA Disparity Study interviewees will be represented with the prefix FTA, the FHWA Disparity Study interviewees will be represented with the prefix FHWA, and the LA Metro Disparity Study interviewees will be represented with the prefix LAM. In order to protect the anonymity of individuals or businesses mentioned in interviews, the study team has generalized any comments that could potentially identify specific individuals or businesses. In addition, the study team indicates whether each interviewee represents a small business enterprise- (SBE-), or DBE-certified business and reports the race/ethnicity and gender of the business owner.

Availability surveys. As a part of availability surveys that the study team conducted for the disparity study, business owners and managers were asked whether their companies have experienced barriers or difficulties associated with starting or expanding businesses in their industries or with obtaining work. A total of 150 businesses from the Caltrans FTA study, 686 businesses from the Caltrans FHWA study, and 204 businesses from the LA Metro study provided comments. The study team analyzed responses to those questions and present representative comments in Appendix D. Availability survey comments from all three studies are indicated throughout Appendix D with the prefixes “FTA-AV”, “FHWA-AV”, or “LAM-AV, ” for the Caltrans FTA study, the Caltrans FHWA study, and the LA Metro study, respectively

Public forums. In January 2019, Caltrans and the study team solicited written and verbal testimony at five public forums across the state. As part of those forums, businesses were given the opportunity to submit verbal testimony to be included as qualitative data for the FTA disparity study. Although, no comments were received during the FTA disparity study forum, BBC conducted similar forums for the FHWA and LA Metro disparity studies. Relevant comments from those forums have been included in Appendix D. Public forum comments are indicated by the prefix “FHWA-PF” or “LAM-PF” for the Caltrans FHWA and LA Metro studies, respectively.

Written testimony. All written testimony received by e-mail or fax was analyzed by the study team and is provided in Appendix D. Written testimony is indicated by the prefix “FTA-WT”, “FHWA-WT”, or “LAM-WT” throughout Appendix D.

B. Background on Construction and Professional Services Industries in California

Part B summarizes information related to:

- Business formation and establishment;
- Challenges related to starting, operating, and growing a business;
- Types of work that businesses perform;
- Employment size of businesses;
- Ability of businesses to perform on different types and sizes of contracts;
- Local effects of the economic;

- Current economic conditions; and
- Business owners' experiences pursuing public- and private-sector work.

Business formation and establishment. Most interviewees reported that their companies were started (or purchased) by individuals with connections in their respective industries.

Most business owners worked in the industry or a related industry before starting their own businesses. [e.g., FHWA#4, FHWA#9, FHWA#17, FHWA#18, FHWA#20, FHWA#22, FHWA#25, FHWA#28, FHWA#29, FHWA#31, FHWA#33, FHWA#35, FHWA#36, FHWA#37, FHWA#38, FHWA#40, FHWA#41, FHWA#42, FHWA#43, FHWA#44, FHWA#46a, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#53, FHWA#55, FHWA#56, FHWA#57, FHWA#58, LAM#5, LAM#7, LAM#23, LAM#30] For example:

- The non-Hispanic white male owner of an SBE-certified consulting firm explained the start-up of his firm, "I'm an unusual case because I formerly was a general contractor and what I ended up doing was consulting with our general contractors on working with Caltrans and the state on public works. I would help them find projects, bid projects, deal with issues that arose in the field and most of that work was with Caltrans. I don't believe I have ever done any work directly with Caltrans as a contractor. And so, I did that for about 15 years. Then, I went back to school, got my Master's in civil engineering and I've now restarted my business in the hopes of becoming a consultant that is more involved in the design phase than on the construction management side." [FTA#1]
- The Black American female owner of a transportation firm explained how she first started her business, "Myself and my husband had conversations on several occasions about the need for non-emergency medical transportation in [the] county where I live, there's just a large majority of the population who are aging. There's really no system for those people who maybe are low income or they just don't have the support that they need to get to and from these doctors' appointments. But those doctors' appointments are necessary for them to get better. So, then you have this gap. And we just said, 'You know what? We have resources in our family that work in health care and can really guide us and give us the direction we need to really start it.'" [FTA#2]
- When asked how the business became established the Hispanic American male owner of a parking facility expressed, "I worked for another parking company for a few years. I have about 10 years of experience working in the parking industry. After four years of working for another company I decided to go on my own, and I started my own business. From there, little by little, things [started] coming in. So now I have about 10 different accounts that are running in L.A. I started with 100 others; I filed for my permits on my own. I did everything on my own, did insurances, bonds, all that stuff on my own. When I took over the garage, I was making about \$50,000 revenue every month, and I took it over doubled that made \$200,000 a month." [FTA#3]
- The Black American female owner of a transportation firm shared her experience on how the business was established, "We have somebody who built the same business in a different county. So, out in the southern counties they were looking for more transporters. I knew this was something that I could do, I have the equipment for it already and we have a

special needs van. I took a leap of faith and did it, started out with one van and now we have nine vans.” [FTA#5]

- The non-Hispanic white female owner of a DBE-certified engineering firm explained how the firm stated, “In 2010, when the economy hit and there wasn't a lot of work, I was put on call [by my employer] and I wasn't getting work. So, that's why I started my business to try and be in control. Now instead of working for one firm, I can work for several engineering firms because I do specialty work. So, it made sense, instead of just relying on work for one firm now I could work for many firms and get more work that way.” [FTA#6]
- When asked how the business was established the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm stated, “I've been in the industry right out of college, I started my career in the public sector as a traffic engineer from there, I decided to go to the private sector and from there, I worked at a small contracting firm that did traffic signal maintenance I was a project manager there. Did that for about eight years and then decided to make a personal move and kind of start my own business in 2013. I'm the technical expertise expert in the company and my partners are the business experts of it. My partner is the CFO. He's responsible for all the back-office support, all the finance and my other partner, he is a business operations guy. He's an older mentor if you will. My partner, he has the mindset of how to make things operate smoothly and consistent, level consistence. Continual improvement. That's his mindset.” [FTA#7]
- The Subcontinent Asian American male owner of a DBE- and MBE-certified engineering and design firm explained how the firm became established, “We started because there was a need for bicycle designs, and I have a lot of industry expertise in developing these types of facilities. We start off by doing a lot of studying of facilities for folks all over the country to pick up in the first few weeks, mostly with advocacy agencies in the beginning, and then we got our first project doing the downtown core and developing a bunch of bike infrastructure throughout downtown. That project put us on the map in terms of being able to deliver projects. My experience at my previous firm helped me have a lot of experience and connections in the area, so it's mostly relationship-based.” [FTA#8]
- The Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm explained how the firm was started, “I started in 2008, and I had two other partners, and we all went into business when the economy was in really bad shape, but we started it with a small office and started working. I have twelve years of experience working for another firm, as a project manager for at least six years. I did work with a Caltrans team, a couple times.” [FTA#9]
- When asked how the business was formed the non-Hispanic white male co-owner of an engineering firm stated, “I've been in this business for about two years as a consultant. I was to working for other firms until about six or seven years ago. Then, I started as a small consultant firm. I got an invitation to meet a landscape architect and we talked about doing some work together we then decided why not try to actually organize a firm rather than individuals. We then hired our other partner and she covers accounting and business management.” [FTA#11]
- When asked about the history of the company, the Asian American female owner of a civil engineering firm stated that the firm had been started nearly 90 years ago. She said, “The

second owner bought the company in 1953, and he was the president until 2016 when I was able to buy the company from him. I had to purchase it to save the firm because otherwise we [would have been] sold to another company.” [FTA#14]

- When asked about the formation and establishment of his business, the non-Hispanic white male owner of an SDVOSB-certified transportation services company said that he had been aware of programs to help veterans who wished to establish a business. “I was aware of various programs to help veterans in business. I had spent most of my career working for large global corporations and [wanted to form] my own business. I did my research, identified an opportunity, and found a business partner that I thought could help me create a big company. The partner that I recruited had prior experience in the industry and had existing customers in the industry. We were able to leverage his existing operations to expand them into the new company.” [FTA#15]
- The Hispanic American representative of trucking firm explained how the firm became established, “We started business 10 years ago my husband and I. His family has been on the business for a very long time, so that's how we started.” [FTA#16]
- When asked how the company was formed the Black American female owner of a DVBE-certified transportation firm stated, “I didn't have previous experience in transportation but I knew a lot about logistics, because I was in the navy that dealt with logistics. When I got out and I retired, I had some family members who are truck drivers and they starting pitching the idea to me because I deal with a lot of different businesses and I had some things going on. So, they said to me, ‘Hey what do you think about starting a truck company?’ They had a lot of different resources so it was just putting our heads together trying to figure out how to create a win-win. So, what we did was started purchasing trucks and establishing the business.” [FTA#18]
- The Black American female owner of a construction-related business reported that she worked in the industry for a number of years prior to starting her own firm and loved the work. She eventually left the company she worked at to start her own firm saying that she “thought she could do it better.” [FHWA#2]
- The Black American male owner of a DBE- and SBE-certified contracting firm reported that he worked in the industry for a number of years before starting his firm. He stated that after working for several union firms, he decided to go out on his own. [FHWA#61]
- The female owner of a WBE-certified transportation firm reported that she and her husband established the business in the late 1990's. She said that her husband owned the business for over a decade on his own before she bought into the company. She said they both have backgrounds in the transportation industry. [FHWA#34]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm reported that while working on a small construction project, he watched someone perform striping work and thought, “That looks like it might be kind of fun to do; I just might want to look into that.” Shortly thereafter, he purchased the necessary equipment and began striping parking lots for a land developer. [FHWA#8]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that he worked in the industry for over 20 years, working his way from an

introductory position to management before deciding to start his own firm in the late 2000's. [FHWA#10]

- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider stated that the business was established five years ago when the owner bought a failing business. [FHWA#21]
- The female owner of a DBE- and WBE-certified construction firm reported that she worked with her father and learned about the construction industry from him before establishing her own business. [FHWA-PF#16]
- Regarding the start-up of his business, the Black American male owner of a specialty contracting business said, “My father’s been doing [this work] for [decades] now, so I started working with him, [gaining] experience, and [I] got my license when I was [in my 20’s]. [I] slowly built [the business] over the years and slowly transitioned a lot of [my father’s] old work to [me] so he could semi-retire.” [FHWA#27]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported that the owner of the business started the firm after his prior employer’s business underwent reorganization. [FHWA#11]
- The Black American male representative of a trade organization that represents contractors said, “We basically started the organization with respect to logistics and trucking. Trucking was one aspect, then consulting, and then we decided to just make it a little bit broader and get the other trades involved as well.” [FHWA#52]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that she assumed ownership and control of the company from her husband. She said that the City of San Diego wanted to contract with minority businesses and asked her husband to start a firm. She reported that the City said they would give him some work and that they could become certified as a DBE. [FHWA#7]
- The Black American male owner of a DBE-, MBE-, and California Unified Certification Program (CUCP)-certified specialty construction firm reported that his family has always worked in construction. He said, “My father was involved in construction in the 1950s in [California]. We wanted to make money in construction, so we decided to go into business.” [FHWA#47]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that she started out by working for a large company. She reported that she and her husband observed that the company was losing business to minority-owned businesses. She stated that they saw an opportunity to capture that minority work and explained that “I saw an opportunity, [and thought] we should probably look into starting a business on our own. I saw a niche for me that I had experience working in the field, so it was an opportunity that I just took advantage of.” [FHWA#13]
- The Hispanic American female owner of an MBE-certified specialty services firm reported that she started by working as a foreperson for another company. She commented that though she was getting very little work, she enjoyed the work and wanted her own business in the same field. She said that she has spent most of her working years self-employed. [FHWA#5]

- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that she bought her first piece of large equipment in the early 1990's. She said, "We were the only company [with our specialty] in [the area]." A year later, she acquired her contractor's license because she thought it would be beneficial to her business. She said, "I actually used to go out and [complete the work myself]. I did have help [from one other person] and that is how we started. I did front and back office, did the dispatching, and everything that was necessary to run [this type of business]." [FHWA#24]
- The Black American male owner of an MBE-certified contracting firm commented that he holds several contracting licenses. He said that he worked in the construction industry for decades and started his firm approximately five years ago to provide construction management services. [FHWA#15]
- The Subcontinent Asian American owner of an architecture and design firm stated that he has been working in the industry for over 20 years. He commented that he started the business in the late 2000's when several people encouraged him to do so. [FHWA#6]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that, "The owner used to work for another firm in town, and she went off and started her own business." [FHWA#23]
- The female representative of a CUCP-, WBE-certified specialty construction firm reported that the owner previously worked for another firm in the same industry, and he left that company to start his own business. She remarked that he subsequently allocated a 51 percent interest to a woman, which qualified the firm for WBE certification. [FHWA#16]
- The Black American male owner of a DBE- and SBE-certified construction-related firm stated, "I was in the real estate business then the market imploded, [and I stopped working]." He said that a friend in the construction industry suggested that he start the business stating, "If you start the company I will try and get [you] some work.' So, I went ahead and put some money together and got [the necessary equipment.]" [FHWA#19]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that he started his business as a supplier but gradually added contracting services until that became the focus of the company. [FHWA#32]
- The non-Hispanic white male owner of a concrete inspection agency stated that he first started by obtaining his certification in concrete-related testing and inspecting then began working for various agencies on an as-needed basis. When he started picking up his own clients, he formed his own business. [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction business stated that he began working in construction after he was discharged from the military, and he began working in various construction jobs in California and Alaska. He later came back to the Bay Area and decided to start his own business. [FHWA#60]
- The Asian American male owner of a structural and civil engineering firm indicated that opening his own engineering firm had always been a childhood dream. He explained how he first began working for small government and private companies inspecting cement bridges and buildings abroad in the 1960s. After migrating to the U.S., he matriculated to a university in Los Angeles where he studied earthquake engineering. After gaining

experience working for small engineering firms in the U.S., he decided to open his own business in 1982. He stated, “With all the resources like the savings and the experiences, including the clients of my original employers, I was able to have those former clients of my employers to be the ones I should start looking for project or projects that might help in this newly formed office of mine.” [LAM#27]

- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm explained that the firm was founded by an African-American female approximately 20 years ago. The firm’s owner had previously worked as a construction laborer and was a member of the Laborer Union. [LAM#1]
- The non-Hispanic white male owner of a specialty trucking firm indicated he first began doing courier work when he was younger, and took it upon himself to get his license to transport goods and start his own business in 2007. He noted that it was his deep desire of wanting to be self-sufficient that spurred him to start his own business. He added, “Also not being treated correctly not being happy a combination of doing it yourself.” He has been the company president since the firm’s inception. [LAM#24]
- The Asian American male owner of an MBE- and SBE-certified engineering firm stated that he has been running his business for ten years but had been in the engineering field for over thirty years. He decided he wanted to open up his own engineering firm because he wanted better opportunities and to be self-sufficient. He founded his firm following the completion of a contract with a big engineering firm. At that moment, while trying to determine the next contract that he should pick up, he decided to go into business on his own. [LAM#25]
- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm explained that the firm was founded by an Asian American male in 1997. The firm’s owner had previously worked a traffic engineer for a civil engineering firm. [LAM#2]
- The Hispanic American male owner of a DBE- and SBE-certified professional services firm began working as an independent consultant after working for various government agencies. He has worked as an independent consultant for 35 years. He explained that prior to starting the firm in 1998, he worked as a director for a similar firm. [LAM#3]
- The Black American male owner of a trucking firm explained that he started the firm eight years ago. He explained that he had previously been a driver for different trucking companies and wanted to start his own business. He stated, “I don’t like driving other people’s [trucks] because nobody takes care of their equipment like you would take care of your equipment.” He decided to start his own business so he does not have to “worry about stuff breaking down, or if they fix their equipment the way it should be fixed, so there won’t be any mishaps. If anything goes wrong, I know what’s wrong, I can fix it or get it fixed and go from there.” [LAM#4]
- The representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm explained that the firm was founded five years ago by a Hispanic male. The firm’s owner had previously worked as a Vice President for another construction company. The owner decided to start his own firm because he believed there were no opportunities for growth at his previous place of employment. [LAM#8]

- The Subcontinent Asian American male owner of a specialty supplier firm explained that he had been in the industry before he decided to purchase and operate his own firm. In 2008, he purchased his current firm and its assets from another owner, and changed the name of the firm. [LAM#10]
- The Asian American male owner of a DBE-, MBE-, and SBE-certified environmental engineering firm explained that he has worked as an environmental engineer since 1999. Prior to starting his own firm, he worked for large engineering companies. He stated, “During the time I was in those big firms, I moved up from field engineer to senior project manager. I was always faced with the challenge of finding suitable MBE firms to help us meet our goals. I thought: ‘if I’m spending time and effort training and helping these folks, I might as well start my own business.’” [LAM#11]
- The Black American male co-owner of a DBE-, MBE-, and SBE-certified architecture firm previously worked for other large architecture firms before starting his own company. When asked what prompted him to start his own architecture firm, he explained, “One, at that time, there were only four African-American architecture firms in Los Angeles County, and it’s a big county; two, I had relationships with large companies where I thought I could penetrate a business market; and three, my goal was to move into developing inner city communities through real estate projects.” [LAM#15]
- The Hispanic American female owner of a DBE- and MBE-certified specialty trucking and hauling firm explained that her father (who is her business partner) had been working in this industry for 20 years. In 2004, her father decided to partner up with her to run their own hazardous and non-hazardous waste removal firm. [LAM#21]
- When asked about the formation of the firm, the non-Hispanic white male owner of a pest control firm explained, “I had previously worked in Sacramento and for other companies doing agricultural work. When I started working for other companies in Los Angeles, I saw that there was greater intensity of business. Interacting with property management, I saw the opportunity [for residential pest control] and started a business. There were a lot of problems with bed bugs. There was a shortage of pest control companies. I had the license and knew it would be advantageous.” [LAM#14]

Challenges related to starting, operating, and growing a business. Interviewees’ comments about the challenges related to starting, operating, and growing a business varied.

Many reported a combination of challenges related to starting, sustaining, or growing their businesses. Some businesses faced a number of barriers. For example:

- When asked if there were any challenges in starting a business related to transportation services, the Black American female owner of a transportation firm stated, “One of the most obvious barriers is age, the perception of not being experienced enough. We really had to prove to the companies that we would go to and ask to [them to] give us a chance to let us provide transportation to them, that as we are growing, we just want to make sure that a relationship is being formed open and transparent. We do what we say we’re going to do: we provide the transportation and take care of your aging residence or patience. [FTA#2]
- When asked what barriers the company has experienced the Hispanic American male owner of a parking facility noted, “Well in the parking business [it] is a really hard business,

especially when you have all these huge corporations. Let's say you're trying to bid for a location, you go for the location and then you have a huge parking company that has been in the business for over 50+ years. They have the money and everything to outbid you for anything and experience.” [FTA#3]

- When asked if the firm experienced any challenges to starting, operating or growing the business the Black American female owner of a transportation firm expressed, “Yes, paying the state and IRS has been a challenge. We're a small business, we make a good amount but we're putting up a lot also, and now they keep raising taxes and minimum wage is going up.” [FTA#5]
- When asked if the firm experienced any challenges when starting, operating or growing the firm the non-Hispanic white female owner of a DBE-certified engineering firm expressed, “Yeah, getting your name out there. So, there's a lot of marketing that goes on and trying to find people that are willing to use you because they may not know you. Then I also had a lot of clients from past projects that were willing to use me. It's just the new ones, it's harder to get them to want to use you. Most of the people that use me it's because they know me from my past job.” [FTA#6]
- When asked if the firm has experienced any challenges with starting, operating and growing the firm the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm explained, “The key challenges that we saw as a small business is from the very beginning was all the bids and RFPs, all these advertisements for public-sector work and they would have prerequisites in there like, ‘Must have five years of experience or three years of experience doing this work.’ So, whenever I would see those requirements in the forms, I would automatically put down my personal experience because I've been in the business for so long. I would say eight out of 10 times, we would be rejected on that because the customer would see that and say, ‘No, we're looking for experience. The three years or five years of experience that we're looking for is as a company.’” [FTA#7]
- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm discussed the challenges his firm had when first starting up. He said, “There were a lot of challenges because a lot of [the competition] are very large and very well established. When the cities or the public agencies put up project RFPs or RFQs, we have to submit a proposal. For a small firm to develop a proposal, it competes with 3,000 to 4,000 firms which is very difficult. They have better graphics, much larger teams, and they're able to spend money on developing and printing proposals. When we proposed on a few jobs, the public agency would say that even though our experience in engineering is up to par, the quality of our paper, or the quality of the bindings and quality of other nuances were what really kept us different from other consultants. That was some of the harder parts, when we propose on a lot of jobs, because a lot of consultants would prepare really nice-looking proposals that are laminated, and put extra costs into them, and that was not cost that we took on, initially. That was something we didn't expect when we started proposing on jobs.” [FTA#8]
- When asked what are some of the challenges the firm experienced when starting the business, the Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm stated, “The challenge is sometimes it is hard to work with the government projects, to get the money takes forever. Also, challenges with finding

employees to work for you, and especially with experience. Once you hire them, sometimes they'll work a few months and then they leave, and it's very, very hard keeping the employees." [FTA#9]

- When asked if there were any challenges or barriers to starting the business the non-Hispanic white male co-owner of an engineering firm noted, "I'm an engineer and I don't know much about following up with clients, filling the taxes, making sure that contractors are in good order and so on. It's more than one full-time job. I know it is difficult for women to start a business, especially for everyday tasks like taking care of the family whereas when I get to work the type of attitude, I have is just, 'Okay, I am going to just go and do my work and show up for dinner'. Being in this partnership, I understand better what my role is supposed to be." [FTA#11]
- The Black American male owner of a telecommunications firm stated, "It's always a challenge to start a business. It was much easier previously because the profit margins were a lot better, so it's a good thing we started when we did [28 years ago]. Now it's a lot tougher to get started in the [telecommunications and IP services] industry." [FTA#13]
- When asked about challenges in establishing and growing his business, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that financing was the most significant challenge he faced. He stated that he had spoken with multiple banks and providers of small business loans but that acquiring a loan was very difficult as a new company with few customers and little revenue. He took money from his own retirement account and took loans against his equity in order to start his business. [FTA#15]
- The Hispanic American representative of a woman-owned trucking firm explained some barriers the firm faced when starting, operating and growing the business. She stated that the firm had difficulties with "insurance, California regulations, certifications, all that stuff and just finding work was really hard." [FTA#17]
- The Black American female owner of a DVBE-certified transportation firm commented about some of the challenges she faced when starting the business, "What I've seen as I was developing the business, women in transportation just wasn't a thing yet. I mean they would look at me like 'Are you sure you want do this?' Not only that, the fact that I don't drive the trucks myself was a problem so a lot of the challenges that I had surrounded me not driving the trucks myself and not having the Commercial Driver's License (CDL) experience. That was a bit difficult for me to get a lot of things, funding, equipment, so I'm really funding myself, funding my business myself until I can get the credibility to get people to trust in our business. The challenge was me not being an actual truck driver myself and owning the business. That was the problem, I had a male friend who did the same thing started a business at the same time, didn't have a CDL license and he was able to secure funding." [FTA#18]
- The Black American representative of an MBE-certified communications firm expressed how public agencies and Caltrans has become a bureaucracy and it has created a barrier for his firm. [FTA-AV#3]
- A DBE-certified insurance agency provided input on challenges a business may face when growing their businesses by noting, "My experience has shown that nepotism with

dissemination of contract renewal. Once a business receives a contract no other vendor can ever challenge the process of breaking the bond of that contract in the renewal process. People don't want to change, if they are working well with a vendor regardless of performance or execution they don't want to adjust to a new person, company, or process even if it would improve enhance or make them more money for the company. Change is difficult and met with resistance." [FTA-WT#1]

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said that aside from supplying the product and showing it to be "of good quality getting established is probably the most difficult part [of owning a business]." [FHWA#11]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm shared that the business started "out of a need to eat." She reported that she formerly owned an art gallery, and her husband was in the concrete business. [FHWA#3]

The same business owner reported that in the early 1980's, when the economic conditions were not favorable in the art sales industry, she and her husband started the firm by financing it with the sale of her art gallery. [FHWA#3]

- The non-Hispanic white male owner of a specialty construction firm said challenges in starting the firm included, "Name recognition and building up your referrals." He said the challenge is getting people to give you a chance when they are already using a particular company. [FHWA#18]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported that, "Understanding all the rules and regulations of running a business [and] the types of insurance requirements that you have to have to run a business and work for the different agencies were kind of challenging." [FHWA#17]
- When asked if he faced any challenges when starting his business, the non-Hispanic white male owner of an SBE-certified specialty consulting company responded, "Marketing myself and trying to figure out where I could start gaining jobs [were challenges]." [FHWA#29]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that getting to know people in the industry was a barrier to getting started in the business. [FHWA#35]
- The Black American female owner of a DBE-certified construction-related business reported that the incorporated name of her business, "Was not recognized as a construction-related business." She said that, after struggling to win bids, she needed to consider changing the name of her firm to better identify the scope of her work industry. She added that it was then that she registered for a doing-business-as (DBA) company name and started working under the firm's current name. [FHWA#48]

Many interviewees reporting facing financial barriers such as cash flow, access to credit, and other factors when they started their business as well as during the years that followed business establishment. [e.g., FHWA-PF#2, FHWA-WT#2] For example:

- The Black American female owner of a construction-related business stated that the biggest challenge to starting and maintaining her company is obtaining funding. She reported having very little cash or other resources to invest at startup, which affected her ability to pursue opportunities, purchase equipment, and fund the day-to-day operations of her business. [FHWA#2]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm stated that one of the barriers for small businesses is “Establishing credit with material suppliers.” [FHWA#11]
- The non-Hispanic white male owners of a construction-related firm explained that, as a new business, obtaining capital is a challenge because “Banks want to see you in business two or three years.” [FHWA-AV#1]
- The male owner of a specialty construction-related firm reported that lack of cash flow is a “Nightmare created by slow payments.” He therefore recommended that there should be laws to penalize contractors failing to pay subs in a timely manner. [FHWA-WT#32]
- The non-Hispanic white male owner of a specialty construction firm stated that cash flow is the biggest barrier to doing business. He stated that he is not going to take out a loan of \$60,000 or more to fund a job. He added that he would rather his business stay small than take out a loan. [FHWA#37]
- The Hispanic American male owner of a specialty contracting business reported the biggest challenge for his firm is cash flow. He said, “In general with any business, but in particular with a small business, [completing work is] very labor-intensive, so cash flow is extremely critical.” [FHWA#9]
- The non-Hispanic white male owners of an engineering firm said, “I gave up trying to get a small business. I just do it on my own and do the best I can. Small companies [and] disabled veterans should be considered a minority in terms of receiving business loans.” [FHWA-AV#3]
- The Subcontinent Asian American owner of a DBE-certified engineering firm reported that he faced “A lot of challenges in the beginning I [did not have an] office. I started [the business] in my garage. [I did not] have any cash flow. [For the first two or] three years, I [kept] looking for small [government jobs, but during that time my] survival was based on my private [work].” [FHWA#12]
- The Subcontinent Asian American owner of an architecture and design firm said, “Cash flow is the number one issue for consultant firms, because we have salary to pay, but like all the consultants, we don’t really get paid on time. The product we put out there is not like a regular business [where] you can sell your product.” He explained that, if his firm is not paid for their work, then he cannot recover some of the expenses by selling the completed plans to someone else. He added that it is not “like I make a pie and [if] nobody buys it, I could discount [it].” [FHWA#6]
- When asked to describe any challenges with starting or running a small business, the Subcontinent Asian American owner of an engineering firm said, “Just the financing obviously. Cash flow is always a concern, so we’re under-capitalized.” [FHWA-AV#4]

Some businesses reported that simply being a minority or woman made starting and growing a business more difficult. For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm stated that she quickly learned that being a woman in the construction industry is challenging. She said that she went from being a positive, open person to more “hard core,” indicating that she had to become more structured and rigid when negotiating. [FHWA#3]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm said, “You get a lot of challenges. The base fundamental challenge is the relationship. When you get [started], you need to get the right people to give you a chance to perform. The right connection in a prime company has more to do with the selection of a DBE than with the expertise. So, it’s more like politics rather than what you could perform or what you can produce.” [FHWA#14]
- When asked whether there are specific barriers for minorities and women in the construction industry, the Black American male owner of a DBE-, MBE-, SBE-certified specialty construction firm said, “The bottom line is, [large construction firms] don’t like to share...they’re non-discriminative as far as who it is, whether it’s a man or female, minority, doesn’t matter. They don’t want to share with anyone, period.” In regard to the challenges for minority- or woman-owned small businesses, the same business owner added that “The toughest part is having someone give you a fair shot.” [FHWA#10]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm said that, as a woman, she has had to work harder to prove herself. She recalled, “[Potential customers] literally did not want to deal with me and I was kind of a joke out there.” She reported that potential customers laughed at her and said, ‘She won’t last six months.’” She described that she survived by making mistakes, correcting them, and learning from them. [FHWA#7]
- The Hispanic American female owner of an MBE-certified specialty services firm said that the hardest part of getting started was proving herself as a woman. She said she was “constantly going out there and having contractors’ question whether I knew what I was doing or not...[and] always having to prove to [contractors] that yes, I do know what I’m doing basically, earning my respect out there in the field had to be the hardest thing.” She added, “It was a constant battle always. There was no room for failure as a woman out there.” [FHWA#5]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business indicated that starting her company was a challenge because assistance programs were nonexistent. She said, “It was very hard, being a woman, to get my foot in the door, because it is a man’s world out there. [But] I was persistent and I didn’t give up.” [FHWA#24]
- The Black American male owner of a DBE- and SBE-certified construction-related firm reported that his firm did not have enough work at first, and he sought DBE certification to get more work. He said that his friend suggested that if he were “[DBE] certified, maybe [I could] get some work that way.” [FHWA#19]

- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm said, “It’s a man’s world for [potential customers] to take you seriously, you needed to have something to fall back on.” She explained that “something to fall back on” meant bonding capability. She said that customers ask, “So you’re a woman, right? You are starting this business? Well, do you have the bonding and the insurance to take this job?” She went on to explain that “once they knew that I had [bonding and insurance] they say ‘What’s your experience?’” She added, “I’m trying to get experience so that you guys can see [that I can do the job]. Without the work, how am I going to prove myself?” [FHWA#13]

Some business representatives did not report challenges for minority- or woman-owned firms in starting or growing their firms. For example:

- When asked if she is aware of any challenges specific to the firm being a woman-owned business in this industry, the female representative of a CUCP WBE-certified specialty construction firm responded, “Well, there’s a lot of barriers in the market [but] we haven’t really seen anything woman-owned as far as any barrier.” She said that being woman-owned has been beneficial with regard to obtaining their CUCP WBE certification. [FHWA#16]
- When asked if he has experienced disadvantages or barriers as a minority-owned firm, the non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider stated, “We really haven’t had any challenges.” [FHWA#21]
- The Black American female owner of a construction-related business stated, “I haven’t really started working yet. I’m just getting my certifications now with my WBE.” She added that she does not anticipate any disadvantages or barriers associated with her business being woman-owned. She said, “The good thing about construction is the bid process the bid process kind of makes everything fair around the board.” [FHWA#2]

Some interviewees reported an easier time of starting a business. For example:

- When asked about any challenges experienced in breaking into his industry, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm stated, “Actually, there weren’t any [challenges], and really there weren’t. It was just stupid luck because everybody that builds something...of any size has a parking lot. And [among] parking lot stripers, only one percent of the people in the United States really can start a business and keep it going, because most people have no clue [what they are doing].” [FHWA#8]
- The Subcontinent Asian American owner of a DBE-certified transportation services firm reported that he started his business in the mid 2000’s. He added: “I bought a [a piece of equipment] and started [working]. Then I bought another one and another one. It was a coincidence that I went into business.” [FHWA#54]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that he started the business, “By just getting a couple of projects. That allowed me to afford to be independent, and I worked hard on those projects, and they led to other projects.” [FHWA#30]

- The non-Hispanic white male representative of a general contracting firm reported that the company was established when a, “Couple of guys got together and they had a gravel pit and they did construction of that pit.” [FHWA#26]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, “It’s really simple. I just don’t trust working for somebody, I never want to get fired.” [FHWA#45a]
- When asked if he faced any challenges in starting the business, the owner of a non-Hispanic white male-owned construction-related business replied, “Every business has challenges. [They] can [be] overcome with patience and knowledge.” [FHWA#36]

One interviewee explained that perceived incentives for WBEs was one factor that encouraged starting those businesses.

- The non-Hispanic white female owner of a DBE-certified consulting firm commented, “We noticed that there was a lack of woman-owned businesses [in our industry] and [noticed] other businesses were trying to get women to participate we decided that we should do that.” [FHWA#39a]

Types of work that businesses perform. Interviewees discussed whether and why over time their firms changed the types of work that they perform.

Many interviewees indicated that their companies had changed, evolved, or expanded their lines of work to respond to market conditions or to fill an open niche. [e.g., FHWA#7, FHWA#8, FHWA#9, FHWA#10, FHWA#16, FHWA#17, FHWA#21, FHWA#23, FHWA#24, FHWA#32, FHWA#34, FHWA#35, FHWA#39a, FHWA#44, FHWA#47, FHWA#48, FHWA#51, FHWA#55, FHWA#57, FHWA#58, FHWA#59, FHWA#61] For example:

- The Black American female co-owner of a transportation firm explained the type of services the firm provides, “We’re a transportation company, we specialize in non-emergency medical transportation. We also have a division of carpooling services for businesses like corporations to offset the burdens on employees finding safe and reliable transportation to work. There are so many cost benefits for the employers but also the employees. We also offer concierge transportation services for people who have cosmetic surgery appointments, with door-to-door service to help them in the transportation in addition to whatever services they’re getting then. So that is what we do.” [FTA#2]
- When asked if the type of work for the firm has changed over time the non-Hispanic white female owner of DBE-certified engineering firm stated, “Yeah, sometimes because of the DBE percentage, I’m doing some things that I don’t normally do. Like on the recent project, I was ready to work on the project but they weren’t ready so, they had me start inputting the line work and I started on the project using the DBE percentage that I was contracted for. I’ve also done plan check reviews for roadway projects or like Quality Assurance Quality Control (QAQC). So, those things are a little outside of my specialty. So, those skills have been added to my business services. If a project doesn’t have the services I provide, sometimes they’ll just work with me and tell me how I can help them to use that DBE

percentage. Those clients just want me on their team, they need that DBE percentage. It's easy to have me on their team because they've worked with me in the past." [FTA#6]

- When asked what the type of work the firm performs and if their lines of work have changed over time the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm explained, "Our main focus is maintenance and we do that by going out to different cities, and looking for opportunities through bid exchanges. We focus on being boots on the ground for cities that are looking for our type of work. As we grew, we started adding construction our portfolio. We have a maintenance side where cities hire us to be their technicians or electricians for maintaining all the signals of their traffic lights." [FTA#7]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm commented on the types of work that his business performs and how that work has changed over the course of the company's history. "Our initial operations, and what we did for the first three years, was 100 percent valet parking services. But in the last two years we've expanded to include shuttle transportation: moving people between different parking areas and different buildings. So, we now provide valet parking and shuttle transportation." [FTA#15]
- The Hispanic American representative of a woman-owned trucking firm explained the type of work the firm does. She said, "We started off as an auto transport company [and] did that for a little bit. Then we moved into just moving containers for the railroad, after that we started moving for Amazon to just doing driving and container loads. So, we no longer do the transportation part of the business." [FTA#17]
- When asked if the type of work the firm performs on has changed over time the Black American female owner of a DVBE-certified transportation firm noted, "Right now, actually I'm in the process of redirecting our business. We hold general commodity and we do the 48 states, so we're a little all over the place. I'm trying to streamline and make it more of a home-based business to where the drivers don't have to go so far. Some want to and some don't, I have to secure dedicated lanes and jobs which is why I need to get with Caltrans or some other organizations that can offer more consistent work right here in our general area. So, my research right now is finding dedicated contracts within our area. So, it hasn't changed yet. You actually caught me right in the process of doing it. I've been going back and forth with emails trying to secure more local work." [FTA#18]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that they have added services, such as rock drilling. As the company grew, they expanded to saw cutting, retrofitting, and selected demolition. She added that selected demolition is particularly important to Caltrans. The interviewee commented that the firm grew from a "saw cutting" company to a "demolition company" that performs saw cutting. [FHWA#3]
- The Black American male owner of a specialty contracting business stated that his company started out with mainly smaller residential jobs. He said, "Now I've gone into larger scale projects as far as the cost of the project." He added, "it seems like over the last year, more and more [people have] discovered our company. [We seem to be] progressing

towards more of the high-end custom work, but it's nothing really that I'm pursuing; it's more been them pursuing us." [FHWA#27]

- The non-Hispanic white male representative of an engineering firm said that their "means and methods" have changed. He said, "[We've changed] the way we go about our production work or the way we arrive at our solutions. [We are] a lot more technology oriented, leveraging software, leveraging IT, and leveraging a lot of technology aspects of our business." [FHWA#33]
- The Hispanic American male owner of a specialty construction firm reported that there have been changes in the type of work performed by the firm. He said, "Originally, we worked mainly for other companies. [The other companies] would say, 'We want this done, this done, and this done.' We would go in and [do it]." [FHWA#4]

The same business owner added that, in order to grow the business, his firm needed more work. Therefore, he stated that they pursued accounts on their own to perform the work directly. He remarked that it helps to "cut out the middle man." [FHWA#4]

- When asked about changes in the types of work the company has performed, the non-Hispanic white male representative of a general contracting firm stated that the company has expanded. He explained that they "started with small ditch and small road projects, and now we do huge stuff for lots of different things: power, water. It's all construction-related." [FHWA#26]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that she is planning to expand the type of work they can do. She said, "I'm looking into other avenues [of business]. [Types of work that] I have the license for [already]." [FHWA#13]
- The Black American male owner of a DBE- and MBE-certified construction business indicated that, in addition to general construction, he is now working in tenant improvements and paving and is expanding into solar. [FHWA#60]

One business owner reported that location was a reason for changing the type of work his business performs.

- The non-Hispanic white male owner of a specialty construction firm reported, "We recognized that if you're going to remain as a [particular type of] company, then you probably have to travel far from your base. The other alternative for us was staying close to our base [by focusing on a different set of services]." The owner stated that his firm transitioned to services that allowed them to travel less. He added that they have since added additional related services. [FHWA#18]

Many businesses reported that there has been little or no change in the type of work they do.

[e.g., FTA#1, FTA#4, FHWA#5, FHWA#6, FHWA#9, FHWA#11, FHWA#15, FHWA#19, FHWA#20, FHWA#22, FHWA#25, FHWA#28, FHWA#29, FHWA#30, FHWA#36, FHWA#37, FHWA#38, FHWA#40, FHWA#42, FHWA#45a, FHWA#46a, FHWA#50, FHWA#53, FHWA#54, FHWA#56] For example:

- The Subcontinent Asian American male owner of an MBE-certified professional services firm reported that his firm has not changed. He said, “No, not changed because basically, I’ve been working as [a] Caltrans consultant [for several decades]. I’ve been doing the same kind of work. It is my advantage because I am doing the same kind of work, that is where my strength and forte is, right? So, I’ll be able to survive because of that.” [FHWA#14]

Employment size of businesses. The study team asked business owners about the number of people that they employed and if their employment size fluctuated.

A number of companies reported that they expand and contract their employment size depending on work opportunities or market conditions. Some reported plans to expand. [e.g., FHWA#5, FHWA#8, FHWA#9, FHWA#13, FHWA#14, FHWA#17, FHWA#18, FHWA#21, FHWA#23, FHWA#26, FHWA#28, FHWA#29, FHWA#32, FHWA#33, FHWA#34, FHWA#39a, FHWA#42, FHWA#45a, FHWA#47, FHWA#48, FHWA#50, FHWA#53, FHWA#54, FHWA#56, FHWA#57, FHWA#58] For example:

- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm explained that the firm’s employment needs depend on work opportunities. He said, “Times when we haven’t had enough work, we’ve had to decrease our staff, and then, as work comes up, so we plan to refill those positions.” [FTA#8]
- The representative of an MBE-certified transportation services firm stated that her firm was trying to expand and diversify their types of work, and that the firm had experienced steady positive growth, isolated from negative economic conditions, without the need to expand or reduce staff seasonally. [FTA#12]
- When asked about the firm’s employment size the Hispanic American representative of a woman-owned trucking firm stated, “[The owner’s] company is expanding, she started off with two company drivers and three owner-operators. Now she has four drivers and nine owner-operators, and she just added two more so 11.” The representative went on to say employment changes, “It slows down a lot after Christmas and New Year’s.” [FTA#17]
- The Black American female owner of a DVBE-certified transportation firm commented about the firm’s growth and plans to expand. She said, “We’ve grown from two to now we have four drivers but I’m hiring another one because we’ve grown in the number of trucks we have. We started out with two, now we have four. So, we’re growing, just slow growth.” [FTA#18]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm said that the size of the firm was steady for many years; but, over the last 24 months, it “has doubled in size.” [FHWA#3]
- The female owner of a DBE- and WBE-certified construction firm reported that she has hired five or six employees this year. Her new employees are from her “circle.” She reported hiring and training her daughter’s swim coach for a marketing position, and a dog groomer who she trained to do “take-offs on soldier pile walls.” [FHWA-PF#16]
- The non-Hispanic white male owner of an architecture-related consulting firm noted that the size of the firm has changed over the years. They started out with one or two people

and grew to about 12 people. He added that later the firm downsized again to about seven employees. [FHWA#30]

- The Hispanic American male owner of a specialty construction firm reported that the firm originally consisted of five employees and one truck. He said, “At one point the firm got up to the level where we had more than twenty employees split into two crews, but that was difficult to control.” He remarked that the firm now has consistent staffing of 10 to 15 employees. [FHWA#4]
- When asked if his firm has changed size over time, the Black American male owner of an MBE-certified contracting firm reported that, as a business that focuses on construction management, “Instead of me growing the firm, I put together a team so I have the capacity to do a project.” [FHWA#15]
- The non-Hispanic white male owner of a specialty contracting business reported that the size of his company “fluctuates, because I want to have a hundred percent quality [and] finding good people is difficult.” [FHWA#31]
- The non-Hispanic white male owner of a concrete inspection agency noted that he has observed growth over the years and picked up quite a few clients since his start in 2000, including six agencies. [FHWA#59]

Some interviewees reported that their firm changes size seasonally. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm noted that the seasonal nature of the business does play a part in the company’s growth. He said, “When construction in California comes to a halt, it comes to a screeching halt.” [FHWA#10]
- The Black American male owner of a specialty contracting business reported that “everything [has] steadily improved every single year.” He said, “I started out just by myself and then had one employee, and every year I’ve [added a] couple more guys almost every year, work is very seasonal. [During the winter] I still usually have work on the books, but we just can’t do it because of the rain.” [FHWA#27]

Some interviewees said that they had reduced permanent staff or frozen hiring because of the economic downturn, poor market conditions, or high overhead. For example:

- The female representative of a CUCP WBE-certified specialty construction firm said, “There was, at a time where we had more than 50 employees. Now we’ve steadily had [around 30]. We’re down [a few more], because we just had some layoffs, but we’ve been at [around 30 employees] for the last couple years, which is the lowest that we had been.” [FHWA#16]
- The Hispanic American male owner of a specialty contracting company stated that he has employed up to 40 people but decided to downsize due to overhead costs. He said, “I cut down to 15 [workers] but can go up to 20 on a big job.” He stated that he maintains a pool of workers for larger projects, but his core employees are always himself and two employees. [FHWA#40]

- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported, “We got really big really fast.” She said, “It was a little overwhelming and it was incredibly hard having two kids in school and separate schedules. [We] decided to shrink back down, which was our original model. Our original model was that we would pull people from the [union] hall and be able to shrink and grow whenever we need to.” [FHWA#22]
- The non-Hispanic white male owner of a specialty contracting company commented, “The company got big in the early 90’s then when the [economic] downturn came, I let the employees go and just sold my equipment and kept [just a few pieces] that’s where I’m at now.” [FHWA#51]
- The non-Hispanic white female representative of a general contracting company said that when the business started, they employed several hundred people. She noted, however, that the current business climate does not require them to employ such a large staff. The firm now engages outside consultants to fulfill the staff requirement for their projects. [FHWA#43]
- The Native American male owner of a DBE-certified construction-related firm stated that his firm diminished in size following the economic downturn. [FHWA#49]

Other business owners reported little or no change in the size of the firm. [e.g., FTA#12, FTA#16, FHWA#12, FHWA#20, FHWA#24, FHWA#25, FHWA#38, FHWA#55] For example:

- The Asian American female owner of a civil engineering firm indicated that the size of the firm has remained consistent throughout its history. “It’s always been [a] maximum of 10 people, at the most.” [FTA#14]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm commented on changes in the size of his company over time. “When we first started, it was just the co-owner and myself and no customers or employees. We started with having six people in the fall of 2014 with one contract. Now we have 10 contracts and 120 people and significantly higher revenue and expenses. The nature of the work that we do and the contracts we have, is [that] it’s steady, Monday through Friday, and so we don’t have any seasonality or other factors that will cause us to add or reduce staff, other than when contracts start to pour in.” [FTA#15]
- The Black American male owner of a DBE- and SBE-certified contracting firm reported that his firm has not grown. He said, “I would have to say no, unfortunately.” [FHWA#61]
- The non-Hispanic white male owner of an SBE-certified consulting company said that his firm fluctuates between three and four employees at any given time. [FHWA#44]

Ability of businesses to perform different types and sizes of contracts. Interviewees discussed types, locations of, and sizes of contracts that their firms perform.

Some interviewees reported barriers such as bonding, cash flow, staffing and other factors that affected their decisions to pursue specific types of work. For example:

- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm stated that bonding requirements are limiting the size of the contracts her firm can undertake. [FHWA#13]
- The Hispanic American male owner of a specialty contracting business said that the capital his firm has on hand, and thus the size of bond they can obtain, limits their size of contracts. He said, “[We’re limited] just based on bond ability, based on our current assets that we’ve got. And then, obviously, just our ability to manage the cash flow that it takes to be able to take on a project on a large scale. Then [cash flow] becomes of critical importance.” [FHWA#9]
- Regarding limitations on the size of the contracts they pursue, the non-Hispanic white male owner of an SBE-certified specialty consulting company stated that his firm is limited in its ability to pursue “big projects because we don’t have the manpower.” [FHWA#29]
- The Hispanic American male owner of a specialty construction firm indicated that the firm has limits to the size of contracts that they can perform based on the bonding requirements of the project. [FHWA#4]

Some firm owners indicated that their companies perform both small and large contracts.

For example:

- The Black American female owner of a transportation firm explained how the firm can work on both large and small contracts stating, “Each year, depending on what the contractor needs the contract can go up or down. For example, let’s say we have a million-dollar contract, then come June [the contractor] will probably up it a little bit more or if they go beyond their budget then they’ll just keep it there. It all depends. Every June is when we go through a raise or a change in our contracts.” [FTA#5]
- When asked if there are any limits on the size of contracts her firm performs, the Hispanic American female owner of an MBE-certified specialty services firm, responded, “No, when it comes to [our field], we have no limits.” She added, “There’ve been times where I feel like I’m in over my head, but that’s when I have to make it work. Which means I have to go out and purchase another truck so that we can fulfill the contract.” She commented, “So far we haven’t had to turn anyone down, or turn any contracts down.” [FHWA#5]
- When asked if there is a limit to the size of contracts they pursue, the Black American male owner of an MBE-certified contracting firm stated that he asks his client, “‘You tell us what you [want],’ because I’ve been in this business for 30 years, and through my network, I don’t care what you want to get done, I can help you.” [FHWA#15]
- The Hispanic American male owner of a demolition and trucking firm stated that his firm has bid on projects as low as \$800 and on projects upwards of \$1 million. [LAM#22]
- The non-Hispanic white male owner of a trucking firm stated that his firm bids on a load-by-load basis in the hopes that the customer or client will provide a year-long contract. [LAM#23]
- The non-Hispanic white male owner of a specialty trucking firm stated his firm performs between five to ten hauls per day. [LAM#24]

- The Asian American male owner of an MBE- and SBE-certified engineering firm stated his firm performs anywhere between \$50,000 to \$300,000 contracts. [LAM#25]
- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm explained that the typical size of the firm's contracts can vary from \$2,000 to \$2.4 million, but averages around just under \$100,000. [LAM#2]
- The Hispanic American male owner of a DBE- and SBE-certified professional services firm explained that the typical size of the firm's contracts is between \$50,000 and \$100,000. [LAM#3]
- When asked what sizes of contracts the firm bids on or performs, the executive of an SBE-certified non-Hispanic white male-owned landscape architecture firm explained, "We do everything from small contracts for single family residential to large contracts for consulting teams on large public sector projects. We are also sub-consultants to other teams." [LAM#5]
- The representative of a DBE-certified non-Hispanic white female-owned civil engineering firm explained that the typical size of the firm's contracts ranges from \$2,500 to \$900,000. She noted that the value of the firm's contracts does not exceed \$1 million. [LAM#6]
- The non-Hispanic white male owner of an SBE-certified engineering firm explained that the size of the firm's contracts ranges from \$10,000 up to \$20 million. [LAM#7]
- The representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm explained that the typical size of the firm's contracts is approximately \$2 million. [LAM#8]
- The non-Hispanic white male owner of a janitorial services firm stated that the firm offers janitorial services to private and public agencies. The size of the firm's contracts ranges from about \$395 to \$35,000. [LAM#9]
- With regard to contract size, the Asian American male owner of a DBE, MBE, and SBE-certified environmental engineering firm stated, "The smallest [contract] would be \$20,000 to \$30,000, all the way to the biggest task order we have had so far for \$583,000 - or one full fiscal year of services." [LAM#11]
- The Asian American male manager of an international architectural, planning, and engineering services firm explained that the sizes of contracts his firm performs range from small thousand-dollar studies to contracts approaching a billion dollars. [LAM#12]
- When asked what sizes of contracts the firm bids on or performs, the non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm explained that the firm bids on any sized contract, but the size of contracts typically range from about \$5,000 to \$150,000 or more. [LAM#13]
- Regarding contract size, the Black American male co-owner of a DBE-, MBE-, and SBE-certified architecture firm stated "Somewhere between the largest, which is \$4.8M, some as small as \$15,000 the average is about \$2M." [LAM#15]

- When asked what sizes of contracts the firm bids on or performs, the non-Hispanic white male owner of a pest control firm explained that the firm performs on contracts totaling about \$20,000 per month. [LAM#14]
- The non-Hispanic white female owner of a WBE- and SBE-certified supplier firm stated her firm currently bids on hundred thousand-dollar contracts. [LAM#30]
- The Asian American male manager of a non-Hispanic white male owned-engineering and consulting firm explained that the corporation bids on contracts as small as a few thousand dollars all the way up to multi-million-dollar contracts. [LAM#28]
- The female representative of a non-Hispanic white female-owned specialty construction firm stated her firm currently bids on \$100,000 to \$150,000 contracts. [LAM#31]

Some firms reported setting a ceiling on project size, finding their comfort zone, and sticking to it. [e.g., FHWA#28, FHWA#32, FHWA#34, FHWA#40] For example:

- The Subcontinent Asian American male owner of an architecture and design firm reported, “There’s a cap [on the amount of work we can do]. There is a limit to my license, but we have not really turned down any contracts. Potential clients know what we can do, so we are rarely approached with work we cannot do [contracts that are larger than his license allows him to perform].” [FHWA#6]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company explained that they are not competitive on the very large jobs typically awarded to the large engineering firms. He said, “I don’t pursue the [large jobs]. I think probably the biggest contracts I’ve taken on are up to \$2 million.” [FHWA#17]

Some interviewees reported not setting strict limits or facing challenges with size of contracts. For example:

- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that they do not have a strict limit to the size of contracts they perform but said, “We don’t take million-dollar contracts, but we take \$100,000.” [FHWA#7]
- The female representative of a CUCP WBE-certified specialty construction firm reported, “We pretty much take any size and duration to a point. We probably couldn’t do the very, very large jobs.” [FHWA#16]
- When asked if there are limits to the size of contract his firm can undertake, the non-Hispanic white male representative of an engineering firm reported that his firm has considerable range. His firm has worked on multi-million-dollar design fee projects across multiple years as well as \$1,000 contracts. [FHWA#33]

Local effects of the 2007-2008 economic downturn. Many interviewees shared comments about their experiences with the barriers and challenges associated with the economic downturn. Some described financial and property losses. [e.g., FHWA#13, FHWA#15, FHWA#17, FHWA#32] For example:

- When asked how the economic downturn affected the business the non-Hispanic white male owner of an SBE-certified consulting firm stated, “Well, at that point [of the 2007 economic downturn], I was really consulting with one company and I was pretty much in charge of their estimating and strategy around what jobs to bid. And I like to think we did pretty well, riding that out. Actually, we did do well. We lost a little bit of volume but not nearly as much as some of the other folks in more competitive areas.” [FTA#1]
- The non-Hispanic white male representative of an SBE-certified engineering firm reported that his firm experienced a significant downturn in business in 2007 and 2008. He said that they are very susceptible to downturns in the economy explaining, “Oil here is big, [but] that’s taken a downturn. The downturn in the housing market obviously affected us greatly, as there were far fewer new housing developments, which meant fewer traffic engineering projects. That was significant; we had to cut our staff 20 percent.” [FHWA#28]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm said, “The economy did hit us pretty hard. There were a couple of firms that got really far behind in paying.” She added that friends helped the firm so they were able to stay in business. She said, it’s 2016 now; it took about five years to pay those people [back].” [FHWA#56]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm commented that his firm experienced effects of the economic downturn. He said, “In a way, because our job depends on Caltrans budget.” He stated, “Like these two years Caltrans cut down on projects so they do not need consultants. Then, besides Caltrans [there’s] not enough work to go around, so they do not need the main consultants. So, when [Caltrans] cuts [funding for] the consultants we suffer.” [FHWA#14]
- The non-Hispanic white male owner of a specialty construction firm stated that, during the economic downturn, he maintained his contracting license but had to work for another company. [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm commented, “[The economic downturn] was terrible. It got very, very, very slow. Those clients that were still around became very slow in paying to the point that I actually sought out [a] job in the public sector again.” [FHWA#55]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting company reported that her work has slowed down a lot due to the economic downturn. [FHWA#38]
- The Black American representative of a minority trade organization reported that his organization had once had more than 70 members but “after the recession, we had [about 25 members]. A lot of it just went under.” [FHWA#52]
- The same representative said that the economic downturn had been hard for his organization’s members. He said, “It’s affected them the most in the negative sense.” [FHWA#52]
- The non-Hispanic white female owner of a WBE-, SBE- and DBE-certified specialty construction firm stated, “I have no idea how I survived. That was incredibly hard.” She said, “I had to borrow a lot of money, and I owed a lot of money because [the prime

contractors] didn't pay me it's taken me almost five years to pay everybody off." [FHWA#22]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated, "To those of us in the industry we called it the Great Recession." He went on to say, "[The downturn] was a Great Recession for a reason and some companies are recovering." He commented that the economic downturn created a deep impact throughout the industry by companies downsizing and others who went out of business. [FHWA#47]
- The Native American male owner of a DBE-certified construction-related firm reported that he was "hit so hard I had to go on unemployment." He also stated that he had to use his equity line of credit and other assets to stay afloat during this time. [FHWA#49]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, "It was devastating." He added, "Ever since Obama was elected, it's just gone down and down and down. We were building up to almost seven million dollars; now we are down to three, three-and-a-half a year." [FHWA#45a]
- The same business owner reported, "We decided the best way to get through a recession is to do a good job. Keep a good reputation, because there will be a couple of survivors as clients, and they will stick with you. In other words, just do your best all the time." [FHWA#45a]

- The female owner of a WBE-certified transportation firm said that the economic downturn affected her firm explaining, "We had more [trucks], but we had to sell them because of the economy." [FHWA#34]
- The non-Hispanic white female representative of a general contracting company said, "Projects became stalled or even nonexistent. [Projects] were on the books, but funding could not be secured so the projects just totally stopped." [FHWA#43]

The same business representative reported said, "The economic downturn made it very difficult for us to get bonding." She stated that the only way she could get the bonding levels required for large projects was to joint venture with larger firms. She added, "We were hit very hard." [FHWA#43]

- The owner of a non-Hispanic white male-owned construction-related business explained that when some of his customers closed shop, it impacted his firm. He said that he was only able to survive because his pricing and overhead is lower than that of his competitors. [FHWA#36]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated, "It was tough we've been through about four severe downturns, and each time you have to tighten your belt loop. [You] have to cut back on your expenses and you have to figure out ways to go out and get that customer. [When the] phone quits ringing, you have to go out and figure out ways to get that business. [We did that by] cutting back on expenses. We couldn't expand and get new equipment." [FHWA#24]
- Regarding the economic downturn, the Black American owner of a specialty contracting business stated, "At the beginning my business was just starting to get off the ground and starting to pick up a little bit of steam." He reported that the recession "stopped everything and pretty much sent me back to square one." [FHWA#27]

- The Black American male owner of an MBE-certified trucking firm said, “Work was slow. I was still a new company [and could] feel the pressure of being a small business and a business owner, but what helped me out was I had very little overhead.” [FHWA#25]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company stated that “just finding work and getting work” was difficult during the economic downturn. He said that he had to travel farther and expand the number of services his firm offered in order to stay busy. [FHWA#35]
- The non-Hispanic white male owner of a specialty contracting company reported that during the economic downturn he downsized the company and sold much of his equipment because there was no work available. [FHWA#51]
- The non-Hispanic white male representative of an engineering firm said that going forward, the economic downturn has taught them to be cautious in the markets they pursue. He added that his firm shrank to approximately half of its former size during the economic downturn. [FHWA#33]
- The non-Hispanic white male representative of a general contracting company said that, in public works, the economic downturn meant that there were fewer dollars available for infrastructure projects. He said that when this happens “competition goes up and [profit] margins go down.” [FHWA#41]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that the economic downturn led to “the birth” of his company and that being a startup during the economic downturn was difficult. [FHWA#44]
- The Black American female owner of a DBE-certified construction-related business reported that her firm began during the economic downturn. She stated, “I moved to Southern California after losing my home in a gated community. When I moved here, I had nothing. I started my company, but it was not gaining traction. I had to reorganize to better position my company for work with agencies and huge construction companies. I took the economic downturn to begin networking to let people know who I was.” [FHWA#48]
- The Native American male owner of a DVBE-certified transportation firm stated that the effects of the economic downturn “did hurt my company because some bids were won, but were scrapped because the agency did not have the funding.” He added, “That’s why you got to be diversified. You got to try new things.” [FHWA#57]
- The non-Hispanic white male owner of a concrete inspection agency reflected that he had experienced slow business around 2008. He commented, “It affected us the first year for a little bit. But we’ve been pretty fortunate on staying busy throughout the years.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction business reported that the economic downturn negatively impacted his company explaining that things were so bad that he filed bankruptcy. [FHWA#60]

Some interviewees indicated that market conditions since 2008 have made it difficult to stay in business. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that the economic downturn affected newer small businesses by the reduction of public work because they are less able to obtain work in the private sector. He pointed out that when the number of “state-funded projects slow down then there’s nothing left but private sector work.” He added that “to work in [the] private sector is very, very, very difficult, because that is really a network of close-knit people that have worked together for years, and they’re not going to take anything from any outsiders. They’re not going to use you; they’re just not.” [FHWA#10]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported, “When we got the new president [President Barack Obama], things went into the toilet.” When asked to elaborate, she commented that the lack of funding for the type of jobs her firm performs caused barriers. [FHWA#7]
- The president of a DBE-, SBE-, and MBE-certified engineering and construction firm said that his business “has been hit hard by the so-called Great Recession. The work we can do has been going to large engineering firms.” [FHWA-WT#11]
- The non-Hispanic white male representative of a general contracting firm reported that the economic downturn “knocked out about 60 percent of our work in California.” [FHWA#26]
- The non-Hispanic white male owner of an engineering firm reported that the size of the firm reduced during the years of 2007 through 2013 due to the economic downturn. [FHWA#42]

The same business owner indicated that during the economic downturn the building industry “just went away. There was none.” He said, “When the residential [projects] went away, the commercial [projects] went with it.” [FHWA#42]
- The non-Hispanic white male owner of a specialty contracting company said that, in the current economy, business is “kind of spotty.” He also said his plan has been to close the business and move out of the area but that move has not occurred yet. [FHWA#51]

A few business owners and managers said that their companies did not see a decline in work, and some reported that they actually became more profitable during the economic downturn. [e.g., FHWA#12, FHWA#50, FHWA#53, FHWA#58] For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that during the most recent recession her firm was fortunate to be working on a very large project with a large general contractor. [FHWA#3]

The same business owner added that the firm has been consistently busy and that they attribute this to the diversity of their services. She also stated that they were “highly dependent on public works projects and Caltrans work” to take them through the most recent recession. [FHWA#3]
- The Hispanic American male owner of a specialty contracting company reported that his business did not experience any negative effects from the economic downturn. Rather, he said, “I made more money.” [FHWA#40]

- The Subcontinent Asian American male owner of a DBE-certified transportation services firm stated, “Actually, the last recession was good to me. We did good business in the last recession.” [FHWA#54]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported, “We were able to weather [the economic downturn.] Fortunately, all the equipment [the firm] owns outright. [The owner] put some of his money back into the business to keep it going until better times. But it still hasn’t been fully repaid.” [FHWA#11]
- The Hispanic American male owner of a specialty construction firm said that the risks of an economic downturn are present all the time. He reported that during the economic downturn in 2007, they downsized to seven employees and continued to find work. He added that the firm became more profitable during the economic downturn by downsizing through salary cuts and a rent reduction. [FHWA#4]
- The Hispanic American male owner of a specialty contracting business reported that his firm was “born in the recession [the recession] created us, and we filled a void in the market. And we were fortunate enough to be able to capitalize on that opportunity.” [FHWA#9]
- The non-Hispanic white male owner of an architecture-related consulting firm indicated that he did not feel any effects of the economic downturn. He reported that the firm had a few projects and was really just starting. He said, “Unlike other firms that had to let 50 people go and had to downsize immediately, we didn’t.” [FHWA#30]
- The Subcontinent Asian American owner of an architecture and design firm reported that his firm is unique because they have another location in another country. He said that when the California economy went down, the market for projects in the other country was good. He said that the other country was important because they had large, long-term projects that sustained them through the California downturn. [FHWA#6]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm said the company fared okay during the economic downturn. He said they “really buckled down [and] cut all the costs and the overhead.” [FHWA#23]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company said that her firm did not have much private sector work during the economic downturn “but we had agency work to do. Because [we are] small, it does not take much to keep us busy. We just need a couple projects and that keeps us going.” [FHWA#20]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company spoke about his approach to surviving economic downturns saying, “Our business model is to focus on complicated [projects], the ones that nobody wants to touch.” He added that specialty work helps them to survive during poor economic conditions. [FHWA#29]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported no impact by the economic downturn because she works in a niche market. She added, “We’ve struggled a little bit, and the company’s bank struggled a little bit in ‘09. Luckily, we had other contracts. That pushed us through.” [FHWA#39a]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company reported that the economic downturn did not greatly affect his firm because his

firm deals with long-term contracts. He explained, “If we get a job, the job is not a very big job but it stretches out over one, two, or three years.” [FHWA#46a]

Current economic conditions. Many interviewees spoke about how the current economy affects their business.

Some interviewees reported that they have not yet seen an upswing in market conditions, the recovery has not occurred, or that conditions are worse than before the Great Recession. For example:

- The Hispanic American owner of an MBE-certified engineering firm explained how the economy has affected his business stating, “We had a good six years, but this last year has been hard to get work. Things have slowed down.” [FTA-AV#17]
- A representative of an engineering firm noted, “Where we are located, we’re still trying to climb out of our last recession.” [FTA-AV#21]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm commented that the current economy is “slow right this minute. There’s no agency work out to bid right now to speak of.” She added, “Everybody told all the contractors that the agency wasn’t releasing anything because they were waiting for the Feds to approve the highway bill. So finally, [Federal government] just did that. So, we’re hoping that will loosen the strings.” [FHWA#38]
- The Black American male representative of a minority trade organization reported, “As it relates to our organization the current economy and market conditions, they’re horrible!” [FHWA#52]
- The Hispanic American male owner of a specialty construction firm reported that one challenge for his firm is that the firm tends to lose business when the economy is good because the unions hire more people by offering benefits. He added that when they lose people, they lose capacity to do the work. [FHWA#4]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, “Now it’s slowing down a little, because I think the economy is going to go down pretty soon. However, I am bigger now so, in the current economy, my business situation is different.” [FHWA#54]
- The Black American male owner of a DBE- and SBE-certified contracting firm commented that is hard to say what the effects of the current economy are on his firm. He stated, “It’s hard to tell you right now at this point in time. We are going into a new year and working, so things are just getting started.” [FHWA#61]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company stated that her firm gets “a lot of private [sector] calls. [It is] a little harder to manage [multiple smaller projects rather than one bigger project]. [We are] going somewhere new almost every day. It’s a lot more work to schedule it, estimate it, bill them.” [FHWA#20]
- Regarding the current economy, the Black American male owner of an MBE-certified contracting firm said, “To keep the doors open and stay in business and meet the payroll and all that, it’s tough. The economy’s tough right now.” [FHWA#15]

- The non-Hispanic white male representative of a general contracting company stated that, from his perspective, the economy is still not good. He said that profit margins are still low, adding: “We see [the current economy] as an owner’s market not a contractor’s market.” [FHWA#41]
- The non-Hispanic white male representative of a DBE-certified consulting firm commented that the economy is cyclical. He stated, “Well, it’s kind of interesting. [The economy is] a little bit cyclical you can see the same thing again; it’s like a sin curve. You can almost put what we did in ‘98 to what we did in 2008 to what we’re doing in 2014, it looks the same almost.” He added, “It’s just funny. You always think that [business is] going to take off in January but [it] always take a little bit of time.” [FHWA#39b]

Some business owners and managers said that they are experiencing more competition in their industry. For example:

- When asked how the market place conditions have been for the firm a representative of an engineering firm noted, “It’s fine, just a competitive market.” [FTA-AV#23]
- When asked about the current economy, the Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that the company “is doing fine,” but added that they are “finding a lot more competition these days.” [FHWA#23]
- The non-Hispanic white male owner of an SBE-certified consulting company reported, “The current economy is very competitive.” He added, “It is tough to be a small business, especially for those large public contracts.” [FHWA#44]
- The non-Hispanic white male owner of a specialty construction firm said, “Construction is very up and down with the economy.” [FHWA#18]
- The Black American female owner of a janitorial services firm noted that her local marketplace is “extremely saturated” with janitorial services companies and very competitive. [LAM#26]
- The executive of an SBE-certified non-Hispanic white male-owned landscape architecture firm noted, “It’s very difficult for us to get work directly from a public agency.” He continued, “I think there’s probably more competition for [public sector] work. There’re more firms out there that are either landscape architecture firms or site planning firms or architecture firms. So as the population increases in LA, the number of [public] agencies don’t necessarily increase.” [LAM#5]
- The non-Hispanic white female owner of a WBE- and SBE-certified supplier firm noted that local marketplace conditions are constantly changing and are now more competitive. [LAM#30]

Most interviewees commented that market conditions have improved or that their firms are doing well. [e.g., FTA-AV#16, FHWA#25, FHWA#32, FHWA#35, FHWA#37, FHWA#40, FHWA#42, FHWA#46a, FHWA#50, FHWA#56, FHWA#58, FHWA#59, LAM#1, LAM#12] For example:

- The non-Hispanic white female owner of DBE-certified engineering firm explained how the economy impacted business. She stated, “In 2010 when I started there wasn’t a lot of work so, it was actually a good time for me to just focus on setting up the business and marketing and getting my name out there and starting slowly. It has increased over the years. I had a little decrease last year in the amount of work because many of the projects got put on hold and delayed work. A lot of it is starting to come through again. So, there is definitely fluctuation in it and it's really unpredictable because schedules change all the time and depending on everyone's work load, it's very unpredictable. You always have to plan ahead to make sure you have money to pay yourself because you don't know when you're going to actually get the work and have the income for the company.” [FTA#6]
- The Black American male owner of a telecommunications firm indicated that the firm had gone through clear changes in size throughout its history. “We went through a steady growth phase initially, and we hit our zenith in the year 2000 and began [declining] from that point. The 2008 crash was devastating. The industry was changing drastically, and it was a tough period. We declined steadily and only started turning things around in the last three years. Now we’re back in a growth cycle and expanding. We’ll hopefully bring on some people this year.” [FTA#13]
- When asked about impacts to his business resulting from economic downturns or current economic conditions, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that his company is modestly insulated from negative economic conditions because of the stability of their government contracts. “We [have] contracts that are long term with steady work load and we're now in the process of diversifying away from just the VA to other agencies and even non-government customers. We have a good solid base, so now we're seeking to expand in other areas.” [FTA#15]
- The Native American male owner of a DVBE-certified transportation firm commented that the current economy is “the reason why I’ve added another service to my business line.” He added, “I have to do different things to stay afloat.” He clarified, however, that his business is “not bad. I’m not going to say that; it’s better than it was when I started.” [FHWA#57]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that the economy has “been going pretty well for the last, six years, and seven years.” He stated, “Worldwide, people have a lot of money. If people have money, they’re spending it.” He added, “that means there is more construction work that needs doing.” [FHWA#10]
- The Native American male owner of a DBE-certified construction-related firm said that over the past two years he has been “able to get his business back on track.” He stated that his salary is low, but business income and profits are good. He said that he is not optimistic about the future of the economy but reported that he is looking to broaden his client base. [FHWA#49]
- The non-Hispanic white female owner of a DBE-certified consulting firm commented, “I’ve actually expanded my client base to include a lot of public agencies, small ones. Actually, that part of my business is growing quite a lot, which is helping me to stay very busy.” [FHWA#55]

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said of the company's current economic conditions, "We're doing well. Every four to five years it seems like there's a cycle that [the economy] goes through, and it rebounds." [FHWA#11]
- The Black American female owner of a construction-related business said she believes that economic conditions are generally favorable to her industry, given that public construction projects and private commercial development requires her support services. [FHWA#2]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said, "[The economy] has gotten strong in the last two years." He said he is seeing more bidding opportunities for the type of work his company performs. [FHWA#47]
- The Hispanic American female owner of an MBE-certified specialty services firm said that current market conditions are favorable except for the issue of slow pay. [FHWA#5]
- The non-Hispanic white male representative of a DBE-certified construction-related firm commented that the amount of work available "is definitely driven by the economy," but he said that the current economy is not having any particular negative or positive effects on his firm. [FHWA#53]
- A Subcontinent Asian American owner of an architecture and design firm who previously reported that his firm had to rely on out-of-country work during the economic downturn reported that since the current construction market in the other country has slowed, they need to look in the United States for their opportunities. Now they are relying on the California market. The sizes of the projects are smaller; and, he noted, "It doesn't necessarily increase income, but we're definitely busier. The [California] economy is back on track, but it is still not good or hot enough for consultant firms. We've been spoiled by the market conditions [where our other office is]. The local market is picking up, but we are still struggling." [FHWA#6]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business indicated that the economy is doing "really well." She said that the economy is cyclical. "Every six to seven years [the economy] starts to go down again. [We are] not quite at the peak yet, but I see the next two to three years being really profitable." [FHWA#24]
- The non-Hispanic white female representative of a general contracting company reported, "We are doing really well." She added that, because of her firm's experiences during the economic downturn, the firm now views it as more important to have funding secured before projects can move forward. [FHWA#43]
- When asked about the current economy, the non-Hispanic white male representative of a general contracting firm stated, "I think we're pretty conservative about having too much optimism. But I think business is going better." [FHWA#26]
- The non-Hispanic white male owner of an architecture-related consulting firm commented, "We [are] able to grow with the restoration of the economy." [FHWA#30]
- The non-Hispanic white male owner of an SBE-certified consulting company reported previously that competition in the current marketplace has increased. He also reported that the economy is turning around, and his firm submits more proposals. He said, "The phone is ringing times are getting better, but it hasn't really had a full swing." He went on to

say that, as the economy improves, projects that halted during the economic downturn are starting up again. He said “a lot of those [projects] were designed a decade ago and then shelved, and now [they are] finally coming back to life.” [FHWA#44]

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm reported, “We’re keeping our head above water. I am catching up on some of the debts that I’ve owed.” [FHWA#45a]
- The Black American male owner of a DBE- and MBE-certified construction business commented that the effects of the current economy are good. He added that he has bonding now, with a certain bonding limit, and that puts him in a different arena to do business. [FHWA#60]
- When asked to describe the growth of his firm, the non-Hispanic white male owner of a pest control firm stated that the firm has been growing at a rate of about 20-30 percent per year since 2014, adding, “I think the growth rate has been faster.” He elaborated on why it has been different than other firms and stated, “I advertise in both Spanish and English, and I speak both Spanish and English, so we’re able to hit a large swath of the community.” [LAM#14]
- The non-Hispanic white male owner of a specialty trucking firm stated that his firm has gradually grown at a slow pace. He noted that his firm has done well for itself. He explained, “We’ve done well. Business has been steady. There has not been any decline. If anything, it has gone up. I have been fortunate.” He indicated the reason for his firm’s growth is due to his firm working with direct shippers, where many other firms work with brokers. [LAM#24]
- When asked to compare the growth of the firm to the industry average, the non-Hispanic white male owner of an SBE-certified engineering firm responded, “Our firm has more aggressive growth than the average [structural engineering firm].” He explained that the firm’s growth is likely attributed to the variety of structures they work on (residential, retail, hospital), and the fact that they also offer consulting services, such as building information modeling. [LAM#7]
- When asked to compare the growth of the firm to the industry average, the representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm described the firm’s growth as “premier in terms of revenue for a DBE company.” He explained that their growth is more aggressive than other similar size construction firms, stating, “We handle bigger projects and I don’t know of other small DBE companies that do stud framing.” [LAM#8]
- The non-Hispanic white male representative of a regional disadvantaged business association stated that local/regional market conditions “are improving dramatically.” Ninety percent of the organization’s members work as subcontractors to primes, which are getting major contracts, particularly on public transit projects, and the organization has been successful “in getting members ‘contract-ready.’” However, he observed, “a lot of barriers are internal. The opportunities are there but it is incumbent on members to take advantage of them.” [LAM#41]

Business owners' experiences pursuing public- and private-sector work. Interviewees discussed their experiences with the pursuit of public- and private-sector work.

Many interviewees indicated that their firms conduct both public sector and private sector work. [e.g., FHWA#4, FHWA#5, FHWA#9, FHWA#16, FHWA#17, FHWA#18, FHWA#20, FHWA#24, FHWA#25, FHWA#29, FHWA#32, FHWA#34, FHWA#36, FHWA#39a, FHWA#40, FHWA#42, FHWA#45a, FHWA#47, FHWA#51, FHWA#52, FHWA#53, FHWA#56, FHWA#58, FHWA#60, FHWA#61] One business is new and plans to work in both sectors. [e.g., FHWA#2]

- When asked which sector the company typically performs work, the non-Hispanic white male owner of an SBE-certified consulting firm noted that most of the company's work was performed in the public sector and very little work came from the private sector. [FTA#1]
- When asked if the firm performs work in the public or the private sector the non-Hispanic white female representative of an engineering firm stated, "We perform work in both sectors, majority with the private sector projects. I would say it's about a 60/40 mix. It's really based on the current market demands and the clientele that we get. We have residential, commercial, agricultural, and civil engineering that we do. We've contracted with cities and counties for different civil engineering needs they've had. Then the larger projects have been with the private sector owners." [FTA#4]
- When asked if the firm typically works in the private sector or the public sector the Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm explained, "I would say about 10 percent is a governmental work, and 90 percent is a private. I'd like more in public works rather than private. Private is a big risk sometimes the business goes under and they are not able to pay their bills. Every year, we get some of those businesses. With government work, if we did a good job, we're going to get paid. There's a lot of competition in this work now. So, it's very hard finding work and hard to see what the requirements are and it's not easy to submit bids on them either." [FTA#9]
- The Black American male owner of a telecommunications firm expressed extreme frustration with working in the public sector and therefore, has a strong preference to work in the private sector. He stated, "It's difficult to do business with the government. In the private sector, you're dealing with people who are going to be financially impacted, and their primary concern is whether the product you're delivering is going to meet their needs and their price point. If you are providing a competitive product and at a good value, you'll get the deal. When you're dealing with the government, having a competitive product is usually not enough." [FTA#13]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm talked about his experience in performing work in the public sector versus the private sector. He stated, "Contracting with the federal government is a very highly regulated environment. There are literally hundreds and hundreds of pages of federal regulations and rules and laws that you have to comply with in order to do work for the federal government. When you go to work for a private company or a private citizen, certainly there are minimum wage laws and worker compensation and certain other federal and state laws that still apply, but the nature of the contract itself can be very simple. Then you

always say, 'These are services we're going to provide. Here's how much you're going to pay.' End of story, right? And it doesn't have to be nearly as complicated as all of the government contracting processes are." [FTA#15]

- The Hispanic American representative of a woman-owned trucking firm explained how the firm works in both the private and the public sector. She said, "We typically perform in the private sector and very little in the public sector. It's very rare that we get something that's public. It just kind of happened that way. It's what we've come across in the beginning, so it's just what we've gotten our hands on so far." [FTA#17]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company indicated that his firm performs both public and private work. He said that his firm works "anywhere that's close, [because] I try to stay within a 100-mile radius of my home." [FHWA#35]
- When asked if the firm performs work in the public or private sector the non-Hispanic white female owner of a DBE-certified engineering firm said, "I mostly do public sector work. Most of the design that I do is in the public right-of-way. Although, sometimes the client is a private developer or subdivision developer. Then, because of their improvements in the development, they require traffic planning so that's when I come in. I don't do onsite work in the development process but I'll do the improvements on the roadways that are required with their development because they're adding traffic flow. There are differences because when you have a developer involved, that's one more person to coordinate with on the project itself. But most of the time because I'm working in the right-of-way, the developer doesn't have much say on that. It's mostly the county, Caltrans, or the city that is dictating what's going to actually happen at the intersection. So, really, that's who I coordinate with as far as the design goes." [FTA#6]
- When asked how much of the firms work comes from private sector work versus public sector work the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm noted, "The current split right now is around 75% public sector and 25% private sector. Since we opened up the construction division and it's getting a lot of traction now it's probably a 60/40 split. On the construction side the developers are private contractors. We have two construction crews and we're keeping construction close to our headquarters in San Jose." [FTA#7]
- The non-Hispanic white male representative of an engineering firm said, "We do both." He clarified that their local California office deals primarily with private sector clients, but that offices in other states focus more on public work. [FHWA#33]
- The female owner of a WBE-certified transportation firm said that her firm primarily performs private sector work as a prime. She added, "I do work for [a public agency], but as a subcontractor." [FHWA#34]

Some business owners reported multiple reasons for their desire to work more in the public sector than the private sector. For example:

- The Black American female owner of a transportation firm explained which sector her firm works in stating, "Right now we're just doing public sector work and, in the future, we want

to go to the private sector but that will be a while for us. We would like to come out with an app or something like that to market to the private sectors.” [FTA#5]

- When asked if the firm typically works in the private or public sector the Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm stated, “Currently, most of our work is public, that’s because typically infrastructure projects have been in that sector. In the future, we see ourselves helping the private sector bridge these gaps.” [FTA#8]
- The non-Hispanic white male owner of a specialty construction firm stated that, while he currently works in the private sector, he would like to work in the public sector. He explained that public works are more concerned with high-quality work than about cost, but they involve more paperwork as well. He added that there is more money in working with the public sector. [FHWA#37]
- The Black American female owner of a DBE-certified construction-related business said that her firm prefers to work in the public sector, because construction contractors “have to pay workers a prevailing wage.” She added that the private sector is “saturated with people and is cut throat.” She continued that there is no regulation of wages in the private sector; and, therefore, it would be difficult for her business to survive. [FHWA#48]
- The Black American male owner of a specialty contracting business, who reported working more in the private sector, said, “if I could pursue more government [work], I would.” [FHWA#27]
- The Black American male owner of an MBE-certified contracting firm stated, “I’m mainly focusing on public sector work, because that’s where there a lot of these contracts that require [subcontracting] goals be met, whether it be DBE or a small business or a minority-owned business I want to be able to go in and help the prime, but at the same time, by teaming with some [other contractors], we can go and get the work and help meet that goal then, I also do private work.” [FHWA#15]
- Regarding his preference for public sector projects, the non-Hispanic white male owner of an SBE-certified specialty consulting company reported, “because you’re working with professionals, where working in private sector, sometimes you’re not working with professionals, because the developers and such that are paying you don’t understand everything that’s going on.” [FHWA#17]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that the public sector is easier to work with because the clients have previous experience with construction projects. She commented, “[The] public sector is more understanding, because they have a little background.” [FHWA#39a]

Many business owners focused on cash flow and timely payments as factors related to their preferences in working in the public sector. [e.g., FHWA#12, FHWA#13, FHWA#16, FHWA#19, FHWA#22, FHWA#28, FHWA#31, FHWA#44, FHWA#46a, FHWA#56, FHWA#57, FHWA#60, FHWA#61]. For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm stated that 85 percent of their revenue is from public works projects, and

most of the rest is private utility work. She added that her preference for public sector work is because of “guaranteed payment. The [public sector] client has money.” She added that other reasons she prefers public sector work are guarantees against the prime declaring bankruptcy, becoming insolvent, or not honoring their financial commitments. [FHWA#3]

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that he very seldom performs private work. He reported, “It’s still good ol’ boy’s network, and that’s the toughest thing and if there isn’t someone standing over these guys saying that [they] have to make sure you include everybody in this deal they’re not going to do it. I mean, they just won’t.” [FHWA#10]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported that his firm prefers working in the public sector. He said that with public work, “We don’t have [the] possibility of that private job going out of business and not getting paid. [With public work] we know that we can get paid for the projects. We know with Caltrans that [we’re] pretty much guaranteed to get paid.” [FHWA#11]
- The non-Hispanic white male owner of an engineering firm reported that he does not have a preference between the two sectors. However, he explained that in the public sector, payments are on time; but, in the private sector, “you are chasing your money all the time.” [FHWA#42]
- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider stated that his firm does very little work with any public agency. He said he is trying “to work with the city to get more secure business coming in.” [FHWA#21]

Some business owners expressed other reasons for their preferences for public sector work, including contracting goal requirements, bidding processes, and other factors. For example:

- When asked about the firm’s experience working in the public sector the Black American female owner of a DVBE-certified transportation firm stated, “I prefer to be in the public sector, that way I know once I get my contract. I’ve put my bid in and it’s a fair process. I’m not sure that the selections are fair, but the process that they go through, you submit your bids it’s fair and it’s better for me.” [FTA#18]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that her company performs mostly public sector work, primarily for cities. She reported that the reason they pursue public sector work is that the cities and counties are required to use “a certain percentage” of minority- or woman-owned firms and “that does help.” [FHWA#7]
- In describing the reason for her preference towards public sector work, the Hispanic American female owner of an MBE-certified specialty services firm said, “[Public sector work has] always been easier as far as the bidding goes and most of the [prime] contractors that we have [frequent interaction with], do the state bidding. We kind of follow the Caltrans manuals. I know exactly what’s expected.” [FHWA#5]

- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that the company mostly performs public sector work. He said they focus on public work because of “our reputation and our owner. She’s really well-known [with] all the public agencies, so people ask for her.” He said it “was a little hard [to perform both public and private] just from [a] staffing standpoint.” [FHWA#23]
- The female representative of a CUCP WBE-certified specialty construction firm said that her firm does not have the same disputes over scope of work in the public sector that they have with private sector clients. [FHWA#16]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business commented, “I’d love to get more public work projects. [Public sector projects] are more long-term. It takes more paperwork, but one of the main reasons is I like to keep my employees happy, and they like it when they get a big paycheck.” [FHWA#24]
- The non-Hispanic white male representative of a general contracting firm reported that his firm works mostly in the public sector. He added, however, that during the economic downturn, “It was probably 50/50.” [FHWA#26]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that his firm performs more work that is public. He said, “Our preference is to do all public work. If we could wave a magic wand, we would only be doing public [work]. The whole community experiences public space and deserves good design. It’s about designing spaces that have a maximum amount of exposure to living things.” [FHWA#30]
- The Black American representative of a minority trade organization said, “A project that’s public has so many stringent requirements for local participation. A contractor going in would be crazy not to follow [those requirements]. In other words, if there is legislation, there are requirements, provisions, and laws are in place. The private sector has not done anything right. If the local politician says, work with these guys that’s what [the private sector contractors] do.” He noted, “In the early days, we did not have a lot of relationships with the politicians to advocate for our [members’ private sector] participation.” [FHWA#52]
- When asked whether his firm primarily performs public or private sector work, the Subcontinent Asian American male owner of an MBE-certified professional services firm responded, “Public sector, because basically what I do is Caltrans work because my experience is Caltrans-centered.” He added, “Everything is Caltrans, even the design even when you do [other agency] work everything is based on Caltrans procedure and standards.” [FHWA#14]

Some interviewees reported that they preferred private sector work to the public sector, or said that there are benefits to private sector work. Some of the comments indicated that performing private sector contracts was easier, more profitable, and more straightforward than performing public sector contracts. [e.g., FHWA#43, FHWA#53, FHWA#54, FHWA#58] For example:

- When asked what proportion of the firm’s work is in the public sector versus the private sector the Black American female owner of a transportation firm noted, “I would say it’s mostly in the private sector. We do work with health care facilities, so most of them range

from congregated living facilities, nursing homes, kidney care centers; we have a lot of dialysis patients, just when you really look at how necessary those individuals getting to their dialysis appointments is, if we really look at that, just that alone, we have to do better in terms of allowing agencies to come in and provide that service.” [FTA#2]

- When asked if any of the companies work comes from the private or public sector the Hispanic American male owner of a parking facility stated, “It's all private sector. [Contractors] are into the real estate, so they own properties, buildings in downtown L.A. Then I also do valet services for restaurants. So, I have a couple of restaurants and then open parking lots.” [FTA#3]
- When asked about the business’s experience in pursuing public or private sector work, the Asian American female owner of a civil engineering firm stated, “Mostly we perform private sector [work], I guess because of the repeat clients. They always give us work, and most of the jobs are quick. We finish in a timely manner. Public-sector projects are large projects, and sometimes the small business doesn't have the manpower. It would take us twice as much time than the big companies, because they have more manpower [to put] into it.” [FTA#14]
- When asked which sector the firm usually works in, the Hispanic American representative of trucking firm stated, “We primarily work in the private sector because there is more work but the big companies hold more of the big contracts and they have more resources than the small companies. For us, we have to get the work through a third-party instead of directly. It's very competitive.” [FTA#16]
- The Hispanic American representative of a woman-owned trucking firm explained the firms experience working in both sectors, “Just collecting the money, is a lot better. Everybody in the private sector, they just pay their bills. When we're doing public stuff, it was just a bigger headache getting paid. It was also a headache dealing with those type of companies and you would get every excuse in the book for them not to pay you and they want a 45-day payout. It was just quicker and easier to work in the private sector, we didn't come across any hurdles it was just going after the work.” [FTA#17]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm stated that his firm mostly works in the private sector, saying, “We probably do 90 percent private work. I've always done work on private property. Every once in a while, I don't get paid, but the amount of money I lose is not the dollar amount of the job. What I lose is how much money I paid [for] my labor and my materials. It's easy to absorb.” [FHWA#8]
- The non-Hispanic white male owner of a specialty contracting company stated that he prefers private sector work because there are fewer requirements to get the work, and the turn-around time for payments is faster. In addition, he stated, “In the public sector, [customers] are over concerned about safety you can't be too overly concerned about safety not from one extreme to another.” [FHWA#51]
- The Native American male owner of a DBE-certified construction-related firm stated that the private sector has fewer regulations and restrictions. He noted that relationships in the private sector are more personal with customers but added, “You don't make the same kind of money.” [FHWA#49]

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm noted that when working in the private sector, “Money is very quick and big. When they need services, they will pay anything to get it and they pay very quickly.” [FHWA#45a]
- When asked about experience with private sector work, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm said that there is a benefit because “the private guy will go COD (Cash on Delivery) with us, but the public guy will never do that.” [FHWA#3]
- The non-Hispanic white female owner of a DBE-certified consulting firm commented, “In the private sector, you are more creative with solutions, and people are much more open to them. In the public sector, not so much. If we have never done [something a particular way] before, door closed. If you think outside of the box in the private sector, you can also get that idea to move forward and you can get some really interesting projects and some really cool projects. Whereas, you would not within the public sector.” [FHWA#55]
- The Hispanic American male owner of a specialty construction firm said that the reason that his firm prefers private sector work is that “it’s just way easier.” He added, “I do a job [in the private sector], we’ll get paid in 15 days, 30.” He added, “When you do work for the school district, you know it might be 60 days. When you do work for the County and the City it takes a while.” [FHWA#4]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm said, “God, have [public agencies] got a lot of paperwork! It’s amazing.” She noted, “[Public agencies have] the kind of work we want to do but it’s just, wow, incredible the paperwork.” [FHWA#38]
- The Subcontinent Asian American owner of an architecture and design firm stated that his firm performs primarily private sector work. He said, “It’s where the market knows me. We could definitely serve the public market, but like I said earlier, because I started this firm in [the private sector] through the referrals, we get more private projects than public.” [FHWA#6]
- The non-Hispanic white male representative of a general contracting company stated that the public sector has “larger regulatory hurdles [than the private sector].” He said that there is more paperwork required for public funding. [FHWA#41]
- The non-Hispanic white male owner of a concrete inspection agency stated that his company does work primarily for the private sector. He said, “I haven’t really expanded to doing any city bids or anything I’ve always thought that I really need to find out how to start doing bids, you know, with Caltrans and LA City.” [FHWA#59]

Some interviewees said that pursuing public sector work is challenging, for some, especially at first. [e.g., FHWA#9] For example:

- The Black American male owner of a DBE- and SBE-certified contracting firm stated, “Basically, there is a lot of unfairness, just a lot of mishandling of things in public contracting. For instance, I just recently won a contract from a public agency where I was low [bidder] on it and the agency decided to rebid it with hopes that I would not be the low bid the second time.” He added, “the agency practices unfairness. In this example, the

things that the agency added to the job were not things for a substantial difference, meaning they could have ordered a change order or added the differences to the contract, but they did not and chose to rebid it.” [FHWA#61]

- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm said that working in the public sector “is very political. You have to know the right people. Even if you can do the job, they don’t trust that you can do the whole job.” She added, “For the public sector in the beginning, we really had to fight hard. In the first few years, I spent a lot of time working with the government representatives.” [FHWA#50]
- The non-Hispanic white male owner of a specialty construction firm said that having to struggle to start working in the public sector could be good. “Is it a pain in the rear? Yes, but it weeds out the sloppy contractors.” He noted that a contractor might appreciate the work more if it is a little bit of a struggle to get into the public sector, but he added that it would be nice for it to be easier to obtain work in the public sector. The owner has thought about getting involved with Caltrans doing “small punch list jobs” and growing slowly. [FHWA#37]
- Regarding challenges specific to the public sector, the non-Hispanic white male owner of a specialty construction firm stated, “There is a lot of paperwork. There’re a lot of hoops to jump through.” He added that it is difficult to obtain a surety bond. He said that, if a company does not have the financial means to secure a bond, it prevents a firm from pursuing certain jobs. [FHWA#18]
- In reference to small businesses facing challenges in the public sector, the non-Hispanic white male representative of a general contracting firm remarked, “Complexity is one issue.” He said, “It’s not complexity in terms of not being able to understand the project, [but rather] complexity in terms of resources to actually complete the project.” [FHWA#26]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said that the public sector requires companies to “justify their fees. You have to use their formulas, and I’ve got to cough up another \$15,000 for a study on what my fees should be, and the costs, and that sort of thing. And of course, that’s the federal law, and it flows down to Caltrans.” [FHWA#45a]
- The non-Hispanic white male owner of an engineering firm reported that obtaining work from public agencies is difficult for new and small businesses because agencies want to work with firms that “have a large office staff and are well established with doing public relations.” He added that public agencies “don’t give work to people they don’t know.” [FHWA#42]
- The Black American male owner of a DBE- and MBE-certified construction company stated that a disadvantage of working in the public sector is that, “You have to be connected to a money source of some type. If you’re not, it’s very difficult.” [FHWA#60]

One business representative reported “red tape” as a reason it is difficult for small businesses to work in the public sector.

- The non-Hispanic white male representative of an SBE-certified engineering firm reported, “The red tape is always difficult, and it becomes frustrating.” He explained that his firm

primarily employs engineers and does not have administrative staff or a large overhead budget to handle all the red tape. [FHWA#28]

Some interviewees said that pursuing public sector work is challenging for women and minority business owners. For example:

- The Hispanic American female owner of an MBE-certified specialty services firm reported that there are not many barriers for her business since her firm has a reputation with contractors, and there are no limitations or barriers owing to her firm’s status as a woman-owned business. She shared that there is a tendency by contractors to ask more detailed questions when they realize they are dealing with a woman, but she has been able to overcome their skepticism. She tries to spend time in the field and on the jobsite to show that she understands the overall business. [FHWA#5]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said, “As a minority-owned firm, you [have] to do 110 percent [more] than what the next guy does.” He added, “they are kind of assuming that you’re not going to live up to their standards or not going to be able to do the job properly. So, you really have to go above and beyond. [Even though] I’m a minority-owned firm you’re still going to get the same amount of service that [you would] get from a regular firm.” [FHWA#19]
- When asked if her firm faces any barriers to working in the public sector, the non-Hispanic white female owner of an SBE-certified specialty consulting company stated that there is “more reporting when you work on a public works project.” [FHWA#20]
- When asked if there are challenges to entering into the public sector, the female owner of a WBE-certified transportation firm said, “The wages go up a little bit. That’s the only bad part about it.” [FHWA#34]
- The Subcontinent Asian American owner of a DBE-certified transportation services firm reported that his firm has struggled to obtain work in the public sector. He said, “The way it works in the public sector, they want us to apply for a job. We get the calls for bids, but that is just a joke. They know already whom they are going to give jobs. I have not gotten one job through DBE. The DBE actually is kind of a joke, it doesn’t work. I don’t know the contractors and you need to know the contractors; you need to bribe them. Without that, you do not get anywhere. [If you don’t] know them and you bid the jobs, you won’t get anywhere.” [FHWA#54]

A few interviewees said that pursuing public sector work is not challenging for small, new, woman, or minority business owners. [e.g. FHWA#31, FHWA#40] For example:

- The Black American male owner of an MBE-certified contracting firm reported that, because of DBE goals, it is easier for a DBE to enter into the public sector than the private sector “so long as you have the wherewithal to understand the process of public sector working.” He noted, “In the public sector, even though [prime contractors] would like to self-perform all that work or go with the people they [already know], they have to give opportunity to small and minority and disadvantaged businesses [because of DBE goals].” [FHWA#15]

Some interviewees said that pursuing public sector work is challenging because of competition, lack of communication, or difficulty understanding legal business issues or regulations. For example:

- When discussing barriers to working in the public sector, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm reported that general contractors are not good at disseminating information to second-tier subcontractors. She commented that Los Angeles Metro has a better program for including subcontractors, making them more of a responsible partner. [FHWA#3]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company said, “There are a lot of rules and regulations that have changed over the last year or two regarding water, and how we design, what we use.” [FHWA#32]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that agencies like to work with larger firms. He said that this makes it challenging to be competitive. He stated that his firm is currently proposing as a prime with a local municipality and that they received an invitation to bid and compete with three other firms. He noted that, if the project were open to the public to bid, his firm would be out-priced. [FHWA#44]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that understanding the legal aspects of construction is a challenge for small businesses, and it can even affect their ability to be paid. He said there are challenges “understanding construction law and trying to avoid all the holes in construction law, because it seems like all construction laws are all set up to protect the consumer, but none are set up to protect the contractors. So just understanding what you can do, what you can’t do, and how to get paid.” The owner added that, because his firm “didn’t understand lien rights and all that” when they first started, they were not paid for one of the first jobs they performed. [FHWA#10]
- The female business owner of a DBE-, SBE-, and WBE-certified firm stated, “Our experience during the last four years in working with state and government agencies is that the opportunities and assistance for small business is vanishing. The major shift we have experienced is the large national competitors aggressively [marketed] themselves to the agencies as small business.” She added, “It certainly appears that the present purchasing environment has been high jacked by these large national companies at the detriment of our communities and citizens.” [FHWA-PF#17]
- The Hispanic American male owner of a DBE-certified construction-related firm indicated that he has done research on how to expand his business, including contacting Caltrans. Regarding Caltrans’ response, he commented, “I’ve called Caltrans and they just send me to their website that I [already] have. It really isn’t much of a help I’ve tried calling general contractors with no success. I was hoping I can learn more so I can capitalize being DBE.” [FHWA-PF#2]
- The non-Hispanic white male representative of a DBE- and MBE-certified specialty contracting company stated that regulations for work in the public sector can cause difficulties for small businesses when they conflict with a public agency’s preferences. He

said, “For example, the EPA fines us for doing something one [way]. It's a battle of the local resident engineer on the projects because if we do it EPA's way, Caltrans is not satisfied. The regulations are lined up and are not consistent with the agencies.” [FHWA#46b]

Some interviewees identified other barriers in obtaining private sector work. For example:

- The Black American owner of a specialty contracting business reported about difficulties he has encountered moving from the residential to commercial sector. He said, “Most of the commercial contractors that I've dealt with I just haven't liked and haven't been able to work well with. It seems like they go in low bid, and that is why they have the job. And they're trying to make their profit off me by not paying me what I deserve.” [FHWA#27]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company said, “the challenge [to working in the private sector] would be that sometimes [customers and prime contractors are] looking at the low price I do not concern myself with the low price; it is what it is. I have my worth and this is my price.” [FHWA#29]
- The non-Hispanic white male representative of a general contracting company reported that it is more difficult for his firm to be competitive in the private sector because much of the work entails negotiations. [FHWA#41]
- The non-Hispanic white male owner of a specialty construction firm said, “Dealing with home owners associations is a problem. Typically, there's a board and not all of the members of the board know what they're doing or you get caught in the middle of disagreements on the board.” [FHWA#18]
- The non-Hispanic white male owner of a concrete inspection agency reported that he has experienced problems with some contractors paying him for work saying, “If they can get away with not paying us, then they won't... if your collection department is a little weak, then some of the contractors will take advantage of that and try not to pay you.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company said that a disadvantage of working in the private sector is that some homeowners and especially some private developers are “not policed enough.” [FHWA#60]

Some interviewees said that they have no preference between public sector and private sector work.

- The Hispanic American male owner of a specialty contracting company stated that he does not have a preference between working in the public or private sector. He said, “Work is work. We are not affected if it is public or private.” [FHWA#40]

Business owners and managers offered mixed sentiments about whether there was greater business opportunity in the public or the private sector. [LAM#9, LAM#12, LAM#14, LAM#22, LAM#25]. Most business owners felt the private sector held more promise than the public sector. Their comments included:

- The Asian American male manager of an international architectural, planning, and engineering services firm observed, “Right now the private sector is on fire. There seems to

be great optimism. In the private side, it's all about optimism and how good you feel about the economy. So, there's a lot of opportunities that are coming out, and they're coming out fairly quickly. On the public side, with respect to Metro, it seems like things are slowing down. We have heard some feedback that it's because the contract/procurement process needs additional staffing or there's not enough people working. So, the great promise of Measure M renewal being this wonderful opportunity for all these new projects to come out we've actually seen the opposite happen. Projects are slowing down and less projects are coming out. From that standpoint, it is a bit disappointing." [LAM#12]

- The non-Hispanic white male owner of a pest control firm stated "I think in the private sector, there's going to be a lot more variety of jobs. I think it's generally skewed to private [sector work] in this area in my industry. I've seen a lot of changes with the invasive pests that come [into LA County] [They] have caused a huge growth in the market." [LAM#14]
- The Asian American male owner of an MBE- and SBE-certified engineering firm stated that throughout the last three years, the marketplace conditions have improved substantially, but that he has not seen that much solicitation by public agencies. He explained, "So you do hear of a project coming out but you do not see the same amount of solicitation coming out." [LAM#25]
- When asked to describe the conditions in the local marketplace for his firm and if they differ in the private and public sectors, the non-Hispanic white male owner of a janitorial services firm responded, "There is no difference. Work is work. It's the same thing." [LAM#9]
- The Hispanic American male owner of a demolition and trucking firm stated that his firm has seen private sector jobs increase in the last two years. [LAM#22]

C. Keys to Business Success

The study team asked firm owners and managers about barriers to doing business and about keys to business success. Topics that interviewers discussed with business owners and managers included:

- Keys to success in general;
- Relationship building;
- Employees;
- Equipment and materials;
- Pricing, credit, and relationships with suppliers and manufacturers;
- Financing;
- Bonding;
- Insurance;
- Timely payment;
- Licensing and permits; and
- Other keys to success.

Keys to success in general. Many business owners expressed the key factors to success as professionalism, communication, teamwork, training, experience, reliability, and customer services. [e.g., FHWA#20, FHWA#33, FHWA#40, FHWA#46a] For example:

- When asked what the key to success has been for his company the non-Hispanic white male owner of an SBE-certified consulting firm stated, “My personal skill level, experience, knowledge, work ethic. Kind of the whole package.” [FTA#1]
- When asked what is the key to business success the Hispanic American male owner of a parking facility stated, “I’ve been working since I was a young boy. I was brought to this country when I was nine years old. I was going to school, but because of the situation with my family I had to help out in the house. I started working there at an early age to help out. From there I developed a work ethic that my parents taught me if you work hard and you have patience and perseverance you can achieve anything you want. So, with my success it’s all about patience, work ethic, and surrounding yourself with the right people. Then in my case I consider myself a team builder. So, all of my employees, everybody they’re not my employees they’re my partners in a sense. So, I’ll make sure my partners are taken care of because if they are happy at doing their job, they’re going to help me grow. That’s my main thing: making sure that the people that are helping me I’m providing value to them and training them. If they want to learn anything or do something else, I can mentor them so they can better their life.” [FTA#3]
- When asked what has been the key to business success for the firm the non-Hispanic white female representative of an engineering firm stated, “I just think the versatility and the jobs that we can work on. For instance, the residential, commercial, and agricultural projects allow us even in a bad housing market to still have work. Even if the agricultural projects tank, we’ve still got work. So, there’s variety and versatility in the jobs that we work on. So, it carries us through the tough times. We also have a great staff. They have been very consistent, they’re really well-educated and do great on the jobs they do.” [FTA#4]
- When asked what the key to business success is the Black American female owner of a transportation firm stated, “Our customer services, we do try to meet the community’s needs. Each individual person is different and they all have different needs.” [FTA#5]
- When asked what the key to business success has been for the firm, the Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm stated, “I think it’s our skills and expertise, and our efficiency in project delivery really sets us apart.” [FTA#8]
- The non-Hispanic white male co-owner of an engineering firm commented about the keys to his business success, “The first ingredient [to our success] is the pride of our work and [what] we deliver and provide along with this, the partnership or the relationship we have with the client. [FTA #11]
- The representative of an MBE-certified transportation services firm stated that relationships with customers, employees, equipment, and financing are all important elements to success for her company. [FTA#12]

- When asked about the keys to success for his business, the Black American male owner of a telecommunications firm stated, “The most important key to success is that you provide value to your clients. Salesmanship is also important.” [FTA#13]
- The Asian American female owner of a civil engineering firm indicated that employees are key to business success. She stated, “To be successful, you just have to do the job and talk to the client and be clear about the scope of work. That way, there is no miscommunication. [Communication] is the most important, because sometimes the [client] thinks you’re going to be doing something but it’s actually outside your scope. [Employees are] important because they’re the manpower doing the work.” [FTA#14]
- When asked about the keys to success for his business the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated, “The most significant thing has been our choice of interest in industry in our specific strategy of targeting [certain] contracts. [We capitalized on] a unique niche market, and because we were new and aggressive, we were bidding prices that are quite a bit less than what the client was previously paying for similar services. We were able to win a handful contracts rather quickly, which allowed us to get established and create a viable business within a matter of a few years.” [FTA#15]
- The Hispanic American representative of trucking firm commented about key areas that are important to business success, “We try to reduce as much expense as we can so team work is important. Relationships with primes, if you have a good relationship, you’re able to be more successful.” [FTA#16]
- When asked what has been the key to business success a representative of a transportation firm stated, “It all depends how you play your cards, but everything comes down to customer service.” [FTA-AV#8]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm commented, “The same thing that pretty much makes any business successful: attention to details, knowing your market, knowing your product or service area. Lastly, completing that circle when you say you’re going to be somewhere at 7:00 o’clock, you’re there at 6:45, not 7:30. And you finish your project on time without issue and they call you back sometimes.” [FHWA#10]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that one general key to success in business is always being available. She added, “It’s not hard to get a hold of me. People can get a hold of me very quickly.” [FHWA#55]
- The Black American male representative of a minority trade organization said, “The main thing is to know what you are doing. Bid on the job for the right price, have your stuff set up so you will force them to pay you in a timely manner.” [FHWA#52]
- The Black American male owner of a DBE- and SBE-certified contracting firm reported that the keys to business success are to generally know the market, be able to adapt to changes, and be versatile. [FHWA#61]
- When asked if there are any general keys to business success, the non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting business responded, “You have to be smart. You have to work smart.” [FHWA#38]

- When asked what factors contribute to the success of the company, the owner of a non-Hispanic white male-owned construction-related business responded, “Quality of service; [a] small company can monitor work and provide timely service.” [FHWA#36]
- The non-Hispanic white male representative of a general contracting company reported that one key to business success is the control of cash flow and that many companies go out of business because they cannot manage their cash flow. He went on to say that cash flow is important both in the public and in private sectors. He said that reading and understanding contractual requirements is a major key to business, especially for contracts in the public sector, because the requirements are more stringent. [FHWA#41]
- The non-Hispanic male white owner of a specialty contracting business reported that one of the keys to his success is his background experience. He indicated that he has had more training in his industry than most, and this makes his firm more attractive to customers and prime contractors. [FHWA#31]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported that her tenacity is a key to her business success. She said, “I keep going that’s probably the number one [key to my success].” [FHWA#22]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company stated that his “tenacity” is a key to the success of his business. He added that he is successful “because I’m able to do an awful lot.” [FHWA#35]
- The non-Hispanic white female representative of a general contracting company stated that having goals and a strategic plan are key to business success. She said, “It’s all about planning.” She noted that a substantial amount of planning and organization is critical to her business success. She also said, “We push limits quite a bit. That’s what you do with strategic planning.” [FHWA#43]
- The non-Hispanic white male owner of a specialty construction firm stated that a key to success is not to give up. A firm may have to deal with bad contracts or difficult jobs, but it must keep going. He noted, “You should know your trade know your line of work and pricing. Communication is most important, because things are time sensitive you just can’t walk away.” [FHWA#37]
- The non-Hispanic white male owner of an SBE-certified consulting company said that “putting in good work” is his key to business success. He stated that, because of the firm’s quality of work, most of his business is repeat customers. He added that many of his new customers are from referrals. He added, “Maybe we are not a big company because we don’t know the keys to really growing a big business but we know how to do good work for the people.” [FHWA#44]
- The Black American male owner of a DBE- and SBE-certified contracting firm indicated that relationships with customers and others are very important for businesses. He stated, “when you work for someone on a contract, good or indifferent, they make decisions. A good relationship can make it easy for you to get things done. For the future, a good relationship with the decision maker can position you for things that are not even being talked about on the table.” [FHWA#61]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said a key to business success is to “understand your business,” adding, “a company must know how to make a profit.” [FHWA#47]
- The non-Hispanic white male owner of an architecture-related consulting firm indicated that participating in design competitions and winning awards is a key to the success of the business. He commented, “If you don’t actually have a beautiful big park to design for something, for a city, you design one for competition and show what we would have done.” [FHWA#30]
- The Black American male owner of a specialty contracting business stated that the key to his business success is that “we get referrals constantly because we show up on time, we do the work we’re supposed to do, and it works and lasts and looks good.” [FHWA#27]
- The Subcontinent Asian American owner of a DBE-certified engineering firm stated, “I think in [the] construction industry you should have some knowledge of construction before [going into the business.] This is the main key to being successful in [business]. The main key you have to finish the job on time.” [FHWA#12]
- The Hispanic American female owner of an MBE-certified specialty services firm said that the primary key to her success is “the fact that I worked out in the field for 10 to 12 years before I started the business.” She said, “When I was working out in the field, a lot of the guys that were foremen out in the field kind of moved into the office. So that helped a lot, because they know ‘ok yeah she’s been out there, she knows what she’s doing.” [FHWA#5]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated, “One of the biggest [keys to success] is to treat other people how you like to be treated. It is important to do good work, be professional, have proper equipment, and have adequate training. Teamwork is very important in any business with both the customer and employees. [We] all have to work together.” [FHWA#24]
- The Subcontinent Asian American owner of an architecture and design firm attributed part of his firm’s success to cultural awareness. He said, “For the international market, we know the culture, we’ve been flexible [and] work with their culture.” He added, “it doesn’t matter what language you speak; they all want the great design. They all want eye catching design. [In] the process of designing, you need to be a little bit flexible. You need to work with their pace and culture to get there. How you discuss the approach is different. You know how to talk to the international clients.” [FHWA#6]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that one of the keys to business success is “definitely our owner keeping everything on track [and] hiring a lot of people for this small of a firm.” [FHWA#23]
- The non-Hispanic white male owner of an engineering firm commented, “The key to success is to just do a good job.” He stated that when a project has a schedule, it is important to manage time, market your firm, and look for work. [FHWA#42]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said, “A lot of those skills [and] a lot of that discipline that I had [in] college helped me [in my business].” [FHWA#19]

- The non-Hispanic male white owner of a concrete inspection agency responded that the keys to business success in general are being available and having quality employees. He said, “I personally try to take care of every client I can.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company stated that a key to business success in general is to be dedicated in what he does, to know the work he is pursuing. He also replied, “Communication, honesty, and relationships are important.” [FHWA#60]
- The Asian American male owner of an MBE- and SBE-certified engineering firm emphasized that a firm in his line of business “needs to be able to market themselves very well and have knowledge in this line of work.” [LAM#25]
- The female representative of a non-Hispanic white female-owned specialty construction firm observed that a business needs to have a great reputation and pricing to be competitive in the construction industry. [LAM#31]
- The Black American female owner of a janitorial cleaning services firm explained that in order to succeed in her line of work, a firm needs to be creative, innovative, able to sell themselves well, and have a certain degree of savviness. [LAM#26]
- When asked in his view what it takes for a firm to be competitive in his line of business, the non-Hispanic white male owner of a janitorial services firm responded, “The quality of our work.” [LAM#9]

Relationship building. Across industries, most business owners and representatives identified relationship building, quality work, and repeat business as a key component to success. [e.g., FHWA#2, FHWA#6, FHWA#7, FHWA#9, FHWA#12, FHWA#14, FHWA#15, FHWA#16, FHWA#17, FHWA#18, FHWA#20, FHWA#25, FHWA#28, FHWA#29, FHWA#31, FHWA#32, FHWA#33, FHWA#34, FHWA#35, FHWA#38, FHWA#39b, FHWA#40, FHWA#42, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#61] For example:

- When asked what the key to success has been for the firm the non-Hispanic white female owner of a DBE-certified engineering firm stated, “I think relationships, communication, and quality work is probably the three most important things that my company provides as far as making the project successful and getting more work.” [FTA#6]
- The representative of an MBE-certified transportation services firm emphasized the importance of long-term professional relationships and good industry references in obtaining subcontracting work from prime contractors. She indicated that her firm had a preference to work with a particular prime contractor, for both public sector and private sector work, because of the positive relationship her firm has established with them. [FTA#12]
- The Black American female owner of a DVBE-certified transportation firm explained the keys to business success for her firm, “The best thing that I have going for our business is that I have built those solid relationships where we can obtain these contracts. Networking and communication these two are an advantage to help us in our relationships and become more successful.” [FTA#18]

- The Black American male representative of a minority trade organization stated, “If you have relationships, it doesn’t matter what color you are, because relationships take care of themselves.” [FHWA#52]
- The non-Hispanic white male owner of a specialty construction firm stated that customers come first. He said that you have to realize that “they know what they want, but sometimes they don’t know what they want.” He clarified by saying that customers may have a big picture idea, and they are looking to the contractor to fill it in; you have to meet their needs. [FHWA#37]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that pre-existing relationships with customers and other contractors make it easier to be successful, saying “I’ve been doing this for a long time so I know a lot of people; I have a history with them. So, it makes that a little bit easier.” However, he added, “Even with that history [customers and primes] always want to use the big [firms]. Even the small guys never want to use the small guys. The small guys want to use the big guys.” [FHWA#10]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said, “Repeat customers. That’s how you keep customers by providing a good product and making sure that there [are] very few mistakes, and if there are mistakes, you live up to it. [You] don’t try to hide it and bury it; [you] come forward with it. And then usually they’re more receptive to that issue than if you were to try and hide it.” [FHWA#11]
- The Hispanic American male owner of a specialty construction firm reported that the most important factor to his firm’s success is the relationships they have built with their three biggest clients. He said, “There’s no marketing there. [We] don’t have to upsell them. The base is already there.” [FHWA#4]
- The non-Hispanic white female representative of a general contracting company stated that relationships with customers are “extremely important. Communication, communication, communication.” She said that making clients completely aware of schedules and costs, and keeping clients informed, eliminates difficulties and creates trust. [FHWA#43]
- When asked if relationships with customers and others in the industry is a key to the success of her business, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm responded, “Yes, by far this is [the] number one [key to success].” [FHWA#3]
- Regarding key factors to business success, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm commented, “Showing up on the job.... I go out on every one of my jobs and make sure it gets done exactly like the plans, and when I get done, nobody has any room for argument.” [FHWA#8]
- The Hispanic American male owner of a specialty construction firm reported that his firm is small enough to respond quickly to clients’ needs and address any problems that may arise. “[We’ve got managers] out there in the field. [If there is a problem], we know that day. Within two hours, I send an e-mail to my client “you might want to go out on the job, this could be a problem. We’re small enough that we can change, but we’re big enough that we can do big jobs.” [FHWA#4]

- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider said, “The way we work is, we work to benefit the consumer and benefit the account better than anyone else.” [FHWA#21]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said that it is helpful in his business to have a “thick skin” and patience with the customer. [FHWA#19]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that developing relationships with prime contractors is important to the success of a business. She spoke about her firm’s first large job with a large prime contractor, and how working well with the prime “opened doors for other big jobs which was awesome.” [FHWA#13]
- The non-Hispanic white male representative of a general contracting company said that his industry is a “people business” and “relationships will get you a lot further sometimes than anything else.” [FHWA#41]
- The non-Hispanic white male owner of a concrete inspection agency reported that relationships with customers and others are at the top of the list of keys to success. He said, “If the contractor is comfortable working with you...and the contractor likes the people you’re sending, you know, that’s 95 percent of your relationship with the contractor that he’s happy with the work that you’re performing.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company indicated that relationships with customers and others require one to be upfront and honest. He said, “If it’s in a private sector, they don’t actually know what problems or pitfalls they might be in for, so I think it’s important to point them out from the beginning.” [FHWA#60]
- The non-Hispanic white male owner of a pest control firm responded, “There are some places where if you’re not culturally sensitive – to speak Spanish or not. If people can learn a bit and reach across the aisle, then it could help a lot. For example, in my case, if a person goes in and they don’t speak Spanish, and they’re going to work in someone’s Spanish home, and the customer is like ‘What are they putting in my house?’ They’re scared. I don’t think it’s an insurmountable barrier.” He added, “You have to be able to culturally be aware because we have a 65 percent Hispanic [population]. You also have to be [familiar] with technology I know people that have businesses that had dinosaur systems where they do everything the old-fashion way and they had a problem. You’ve got to be quick because things change fast. You have to be good with customer service.” [LAM#14]
- The Asian American male owner of a trucking firm stated that relationships with customers and others are key. He said 70 percent of his clientele are pre-existing clients that the firm has performed work for in the past. He explained that good communication from the firm has been the key to maintaining good standing relationships with his customers and clients. Interviewee LAM#20 then added, “The customers have their demands and we try to meet every single one of their demands. Sometimes we can do it, sometimes we can’t. Sometimes, if we happen to fall short of the customer’s expectations, we have to communicate that.” [LAM#20]

Employees. Business owners and managers shared many comments about the importance of employees.

Many interviewees indicated that high-quality workers are a key to business success and are sometimes difficult to find. [e.g., FHWA#2, FHWA#4, FHWA#5, FHWA#7, FHWA#14, FHWA#17, FHWA#18, FHWA#21, FHWA#31, FHWA#38, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#52, FHWA#53, FHWA#54, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The Black American female owner of a transportation firm discussed the key to business success noting, “Definitely employees and communication. I think, really working on communication, investing in opportunities to communicate with your employees, for them to give you feedback, let them feel a part of the process. I tip my hat to human resource professionals because it’s really hard to hire. Finding the right people, the right people who are dedicated, who take on the life of your brand and your company and breathe life into it, not just work, work is work. Everybody has work. Especially at the startup level there’s a distinction with the type of people that you need. So, I tip my hat to them because I like to create and like to solve problems through business development and things like that, but I don’t like to deal with employees, it’s just it’s not my strong suit. We work with a great staffing agency that takes care of that for us, and we’re able to find really great talent.” [FTA#2]
- When asked what have been the key to business success for firm, the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm stated, “The key ingredients for our type of business is having the best people, having the best systems in place and then having the mindset of always continuing improving. To me, those are the key ingredients to our business success.” [FTA#7]
- The Black American owner of a WBE-, MBE-certified transportation firm stated, “The key to business success is quality employees but it’s hard to find workers.” [FTA-AV#6]
- The owner of an engineering firm noted the key to business success are the employees but, “Obtaining good technical employees is difficult.” [FTA-AV#27]
- The non-Hispanic white male owner of a specialty construction firm stated that hiring the right people and training them is important. He said that a firm can hire low-level employees with low-level skills; but, then, the firm must train them. He added that, if the firm then wants those employees to stick around, it must pay them appropriately. [FHWA#37]
- The non-Hispanic white male representative of a DBE-certified consulting firm explained that employees are a key to business success. He said, “We are a professional entity; we have to provide a professional service. The employees have to be knowledgeable, but a lot of times what we do is hire them without or with little experience, and then we teach them the way we do things.” [FHWA#39b]
- When asked if good employees are a key to the success of her business, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm said, “Yes, skill sets [are important].” [FHWA#3]

- The non-Hispanic white male owner of an SBE-certified consulting company said that good employees are “super important.” He pointed out that, for a small business like his, “An employee means a really big investment.” [FHWA#44]
- The non-Hispanic white female representative of a general contracting company said that hiring the right employees is a critical key to a firm’s success. She said, “When employees feel they have made an impact and helped in the process.... It is better for morale.” She added, “[Having good employees] shows the client that everything is successful. Things are going along well.” [FHWA#43]
- The non-Hispanic white male representative of a general contracting company said, “Hire smart people, that is always a big key. Ultimately you are only as good as the people that are working for you.” He reiterated, “Hiring smart people is key. I mean good, competent, qualified people.” [FHWA#41]
- The female representative of a CUCP WBE-certified specialty construction firm reported that the way the firm’s owners treat their employees is a key to the success of the business. She said, “The owners are amazing, and they have employees that have worked for them for over twenty-five years. In this industry, you have a big turnaround, it slows down, they go elsewhere. They’ve had very loyal employees and they’ve treated [those employees] great.” [FHWA#16]
- The non-Hispanic white male owner of an engineering firm stated, “I just think experience and education is the key [to business success].” He reported that in his location, it is difficult to find an experienced pool of talented people because of the lack of universities in the area. [FHWA#42]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported the importance of her ability to recruit many of the workers from her former employer that helped her business. She said that she has some of the same customers who recognized the workers, which gave them confidence in working with her. She stated, “I was able to keep some really amazing core guys. So right now, I have a good staff of core guys.” [FHWA#13]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated, “When you have a good team and you have employees that are happy, then everybody’s happy and you make money.” [FHWA#24]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that employees are important to his success. “You can sell any type of structure; any type of business development project and you can lay out all the policies and procedures with employees but you can just send one employee out the very first day [that can] screw it all up in an hour. One person will screw up [a] months’ worth of work.” He added, “[In] the construction industry you’re only as good as your last day’s work. If you had a good day’s work today, then maybe they’ll call you back for work tomorrow, but if you had a bad day’s work today, they’re not calling you back. It’s done. You’re through.” [FHWA#10]
- The Hispanic American male owner of a specialty contracting business said that the “most important [key to success] I think is hiring the right staff, having the right people,

developing the right environment where the employees can be successful, and promoting success is of primal importance.” [FHWA#9]

- The non-Hispanic white male representative of a general contracting firm reported that one of the main keys to business success is “the employees and their hard work and ingenuity.” [FHWA#26]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated that “our staff is really responsive [and] our office manager is pretty knowledgeable.” [FHWA#23]
- The Hispanic American male owner of a specialty contracting company said that employees are the number one key to a business’ success. He stated that a few bad employees could hurt a company’s good reputation and cost the company money. [FHWA#40]

Equipment and materials. Business owners and managers discussed equipment and materials needs.

A number of businesses reported the importance of having the right operational equipment and materials for operating their businesses. [e.g., FHWA#17, FHWA#25, FHWA#35, FHWA#43, FHWA#44, FHWA#45a, FHWA#47, FHWA#48, FHWA#52, FHWA#53, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#60] For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm said that her firm’s equipment is a key factor in the success of her business due to the specialized nature of services provided by the firm. [FHWA#3]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, “You need good equipment.” He also said that trucks are “supposed to look good. They need to be clean. We have guys come into the yard and clean the trucks every second weekend.” [FHWA#54]
- The non-Hispanic white male owner of a specialty contracting company said that equipment is important in his industry. He continued, “The one thing I don’t want is for my equipment to break down. My maintenance program is pretty good.” [FHWA#51]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that she has to be current and uses “state of the art” equipment to keep abreast of the industry trends and services. She added that her firm is currently “focusing on new equipment which gives us a capability to do an entire project [much faster].” [FHWA#39a]
- The non-Hispanic white male owner of a concrete inspection agency stated that certain equipment and clothing attire is a requirement in his line of work, such as “construction boots, hard hat, safety vest, glasses. It’s a requirement. We are required to have the code books.” [FHWA#59]

Some interviewees discussed advantages of owning all their equipment. [e.g., FHWA#34] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that, for his line of work, a tractor and dump truck are important to own; but, that on bigger jobs, he has to rent other equipment. [FHWA#37]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm stated that one of the keys to business success “is not growing too fast too quick [and] living within your means as far as buying equipment. All our varied equipment is owned outright; we don’t lease it. So, if [we] don’t have that payment, usually we can still be pretty competitive.” [FHWA#11]
- The Hispanic American male owner of a specialty construction firm said, “Our biggest [competitive] edge is we own all our equipment. There is one piece of equipment that we are making payment on, and we will have that paid off by mid-summer. All the other stuff is paid for.” [FHWA#4]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that his advanced equipment helps his firm succeed. He said they use “high tech design tools and representation tools that allow us to kind of do the work of an office that’s twice as big.” [FHWA#30]
- The Hispanic American male owner of a specialty contracting company said that equipment is a key factor for his business to be successful. He stated that owning his equipment allows him to offer customers better pricing. [FHWA#40]

Some interviewees discussed that there is no advantage to owning equipment and prefer to rent their equipment on an as-needed basis. [e.g., FHWA#61] Examples include:

- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that, while he owns the basic equipment he needs for all jobs in his field, he also rents additional equipment that is only necessary occasionally. He said, “I rent any equipment I need to do a job.” [FHWA#35]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said that the equipment he uses is “all standard. There [are] no advantages with equipment anymore.” [FHWA#10]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm commented, “We don’t own a lot of equipment.” She added, “By working on public works, infrastructure work, probably 90 percent or 95 percent of those general contractors provide the big equipment like forklifts and cranes that we need. We have some smaller equipment that we get. The big really expensive stuff, we won’t ever have to buy it.” [FHWA#38]
- The non-Hispanic white male representative of a general contracting company stated that having the proper tools is important, but noted that there are companies that make the mistake of purchasing too much equipment, thinking that more equipment will get them more work. [FHWA#41]
- The Black American male owner of a DBE- and MBE-certified construction company reported that access to the right equipment is a key to success and that he has accounts with equipment companies where he can get any piece of equipment he needs. He said, “I

think that some people have to stretch a small business. They get overloaded with buying equipment and...something like that can bog you down...You got to be limited on buying equipment.” [FHWA#60]

Some business owners cited expensive equipment, the cost of repairs, or not having the equipment needed for their operation as barriers. For example:

- Though describing his equipment as “just standard,” the Black American male owner of a DBE- and SBE-certified construction-related firm reported that his industry is “a tough business to compete in. The equipment is really expensive. The [amount that] you have to pay your operators is really high. Overhead is really high. Maintenance on the machine is high.” [FHWA#19]
- The Black American female owner of a construction-related business noted that acquisition of equipment might be a barrier for her firm, due to limited cash flow. She said, “Hopefully, just with the right job and I am able to prepare properly and have that money saved up so when the time comes you know I can move forward, but [not being able to obtain the proper equipment] would definitely be a barrier [to business success].” [FHWA#2]

Pricing, credit, and relationships with suppliers and manufacturers. Business owners and managers discussed the importance of relationships with suppliers and manufacturers. [e.g., FHWA#46a, FHWA#52, FHWA#53, FHWA#54, FHWA#56, FHWA#58, FHWA#59, FHWA#60, FHWA#61, LAM#30] For example:

- When asked what has been the key to business success, the Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm stated, “We do quality work and that way the people will give us work and they see that we do complete jobs, thoroughly, and we try to be right on schedule. Also, we are very competitive in this community our rates are lower than California North or South.” [FTA#9]
- The non-Hispanic white male owner of a specialty construction firm **reported** that he has access to pricing information for materials; however, he believed that larger companies could get better pricing because of the volume bigger companies use. [FHWA#37]
- The Black American male owner of an MBE-certified contracting firm reported that relationships with suppliers are important to his firm’s success. He said, “Try to work out alliances with these suppliers, especially if they’re a non-minority-owned firm. I will go to them and say; I am a minority-owned firm, I am bidding this project. If you give me a good rate, then I am subject to be able to put in an order here, because that project requires a goal. I can meet the goal on the project.” [FHWA#15]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm said that obtaining access to pricing and credit for materials can be difficult. She stated, “Oh, credit’s a real problem. It’s really hard to get anything until you’ve been in business two years.” [FHWA#38]
- The non-Hispanic white male representative of a general contracting company stated that access to pricing and credit regarding materials is an important key to business success. He

said that a company must be able to show financial strength and assets in order to obtain a line of credit. [FHWA#41]

- The non-Hispanic white male owner of an SBE-certified consulting company stated that access to pricing and credit for materials is not that critical to his firm's success as a consulting firm, but he can understand how having access would be helpful to contractors. [FHWA#44]
- The non-Hispanic white female representative of a general contracting company stated that access to pricing and credit regarding materials is a key to business success. She stated that, fortunately, her business has not struggled with pricing or credit. She said, "[Credit is] always available to us even in the downturn." She added that her firm has developed good relationships with banking partners and account managers; and, they have maintained a line of credit but have not had to use it. [FHWA#43]
- The Native American male owner of a DBE-certified construction-related firm reported that when he was active in the construction contracting industry, having access to pricing and credit for purchasing materials in advance was necessary. [FHWA#49]
- The Hispanic American male owner of a demolition and trucking firm stated that price is the most important factor for a firm to be competitive in his line of business. Then he added, "knowledge and experience matter." [LAM#22]

Some business owners did not require pricing and credit for materials in their industry or did not find it important to success. [e.g., FHWA#48, FHWA#55]

- The non-Hispanic white female owner of a DBE-certified consulting firm commented, "We are more serviced-based so we don't have a lot of supplies that we purchase." [FHWA#39a]

Financing. Many firm owners reported that obtaining financing was challenging and important in establishing and growing their businesses, purchasing equipment, and surviving poor market conditions. [e.g., FHWA-PF#4, FHWA-WT#17, FHWA-WT#25, FHWA#17, FHWA#25, FHWA#39a, FHWA#40, FHWA#41, FHWA#47, FHWA#51, FHWA#52, FHWA#53, FHWA#61]

- When asked if financing was an issue when first starting the firm, the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm explained, "Yes and no. When we [the two business partners] went out for financing and establishing a line of credit and equipment line of credit the banks didn't really want to back us saying 'We'll give you \$50,000 line of credit.' Something really small, but once [the 64 percent partner] put his name on the line to back us, the banks said, 'Oh, we know you. We know your other two companies. If you co-sign on the loan, we can offer you \$1 million.' Something bigger." [FTA#7]
- When asked about challenges with financing the Black American female owner of a DVBE-certified transportation firm expressed, "I have to either be my own bank and finance myself or to get financing through those creative low companies out here that'll finance you but they charge a really high-interest rate. You have to pay the money back on a weekly basis and they take advantage of you that way because the bank won't give you any money because you are a small business with less than two years of experience. That's what I'm

going through. Those rates are just too high and then factoring is another option. So, that's my challenge." [FTA#18]

- A representative of a WBE- and MBE-certified transportation firm stated, "It should be easier for small businesses to obtain working capital without ridiculous earning capitals." [FTA-AV#5]
- The president of a construction-related firm reported regarding access to capital, "I have seen the loss of major private capital all caused solely by the creation, staffing and arbitrary and capricious implementation of [the] DBE programs." [FHWA-WT#1]
- The Native American male owner of a DBE-certified construction-related firm said that financing is a key to business success. He also commented, "Having a line of credit is crucial to be able to survive." He added that, in his current industry, credit helps in paying employee salaries and consultant's fees. [FHWA#49]
- The female owner of a WBE-certified transportation firm commented, regarding the importance of financing to success, "We have excellent credit and I've gotten a few equipment loans." [FHWA#34]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that access to credit is important to compensate for payment delays. [FHWA#47]
- The Black American male owner of an MBE-certified trucking firm reported that he investigated financing possibilities when he started the firm, but "it was kind of hard to procure a loan so we just decided to go ahead and pay cash for my equipment." [FHWA#25]
- The Black American female owner of a construction-related business said that access to financing "could be a barrier. Hopefully it's not. I have a good product, so hopefully it's not a barrier." [FHWA#2]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that financing is the most difficult part of the construction industry. She recommended that, if the State is going to have a program that sets a goal for the number of subcontractors, they should "line up a series of banks to support the subcontractors and to help fund the project." She added that, if there were a banking partner, it would help the State to meet their goals. [FHWA#3]
- The president of a DBE-, SBE-, and MBE-certified engineering and construction firm reported that "financing is always a challenge." He added, "Our firm has gone through six banks [in its decade-long] history." [FHWA-WT#11]
- The Black American female owner of a DBE-certified construction-related business stated that financing and lines of credit are critical for a firm's success. She said, "Because of the economy, [credit] plays a huge factor on if you are able to build up your company if you are able to obtain a line of credit." She also said that "if you have no business lined up to a lot of people you are still a start-up." The owner added that the stringent criteria financial institutions place on small businesses make it difficult to secure a line of credit; and, because of the effects of the economic downturn, the credit standing of small businesses could be affected. [FHWA#48]

- The non-Hispanic white male owner of a specialty construction firm stated that financing is like “a big, huge machine.” He explained that if he went out and bought a piece of equipment, he would have to finance it; and, then, in order to make the payments, he would have to go out and get jobs just to help pay for the equipment. [FHWA#37]
- The non-Hispanic white female representative of a general contracting company stated that financing has become difficult for her clients, which results in fewer clients being able to hire her firm. [FHWA#43]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said that obtaining financing is challenging for small businesses. “It’s hard. Getting financing is tough. If you [were a large business], you would have the ability to go and get more equipment, but you are a small business, so you’re network pool of equipment and research you’re going to have is going to be much smaller.” The owner to illustrate the issue, gave an example of a piece of equipment he would love to have that costs \$1.6 million dollars. He said that, instead of financing it like a long-term mortgage, “They finance for five years, just like a car payment. You’re looking at \$30,000 a month not counting your insurance and maintenance. Small businesses don’t have that type of ability, none of them do.” [FHWA#10]
- The non-Hispanic white male owner of an SBE-certified consulting company said that financing and lines of credit are helpful to his firm. He stated that, in his experience, smaller bankers have given his firm better terms than larger banks. [FHWA#44]
- The Black American male owner of a DBE- and MBE-certified construction company commented that there is no way to get bonded without assets attached. He stated, “I think it’s important to get cash money into the bank, so that you can tell the bonding company, you know what, I’m tired of bidding a two hundred-thousand-dollar job, I want to bid millions.” [FHWA#60]

Some businesses reported that financing is neither a key factor nor a challenge to their success. [e.g., FHWA#7, FHWA#36, FHWA#42, FHWA#59] For example:

- When asked if he has experienced any barriers with financing the non-Hispanic white male owner of an SBE-certified consulting firm explained, “That really isn’t applicable to my situation because I am self-employed, I don’t need any money for just selling my knowledge and experience. I don’t have any inventory. I don’t need financing for anything other than a computer maybe, or a little bit of furniture. I had no problem with that.” [FTA#1]
- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider reported that financing is not a difficulty for his firm. He said, “We take the income that we can get and then turn it around and put it back into the business.” He continued, “We don’t want to pull out a loan or anything and jump faster than we can.” [FHWA#21]

Some business owners reported that they had used personal resources to finance their business operations. For example:

- When asked whether the ability to obtain financing is a key to his success, the Hispanic American male owner of a specialty contracting business responded, “Financing hasn’t been a problem up until now. We’re actually self-financed; we’ve been able to manage without any additional lines [of credit].” The owner added that in the future, for his firm’s growth, they might seek financing. [FHWA#9]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated that he is “self-financing” his firm. [FHWA#45a]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm stated that obtaining financing could be a challenge for new businesses. She said, “Well, I took a loan on my house for start-up capital when I started the business. For things I needed, I could not go to a bank and the credit cards [maxed out] financing, it is a real problem. Yeah, it is a problem.” [FHWA#38]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company reported that financing is hard to acquire. He stated that his firm has not been able to get any financing. He explained, “We have taken out hard cash loans to keep the company flowing. So, we’re stuck where we’re at.” [FHWA#46a]

Bonding. Public agencies in California typically require firms working as prime contractors on construction projects to provide bid, payment, and performance bonds. Securing bonding was difficult for some businesses, particularly newer, smaller, and poorly capitalized businesses.

Many interviewees indicated that bonding requirements are challenging and/or adversely affect small businesses opportunities to bid on public contracts. [e.g., FHWA-PF#14, FHWA#4, FHWA#9, FHWA#12, FHWA#16, FHWA#50] For example:

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm reported that bonding requirements were the limiting factor on the size of contracts his firm undertakes. He said, “I’ll do anything. The problem is the bonding.” [FHWA#8]
- The Black American female owner of a construction-related business said that, because her business is very new, she does not yet know what bonding challenges her firm will face. She said, “I’m ignorant to what I need [in terms of bonding].” [FHWA#2]
- The non-Hispanic white female representative of a general contracting company reported that bonding is more difficult for her firm. She went on to say that her firm has found that they must find a joint-venture partner on larger projects just to meet the bonding requirements. [FHWA#43]
- The Subcontinent Asian American male owner of a DBE-certified engineering firm said that bonding “is challenging.” He reported that his firm has had problems with understanding contract clauses. He said, “I know the construction stuff, but I don’t know the other clauses like legal issues.” [FHWA#12]
- The non-Hispanic white male owner of a specialty contracting company stated that bonding is required in his industry. He noted that “if you’re not bonded, you don’t work.” [FHWA#51]

- The non-Hispanic white male representative of a general contracting company stated that the ability to bond is required in his firm’s line of work in both the private and public sector. [FHWA#41]

One owner reported that bonding required by California agencies prevented them from bidding or moving from subcontracting to the role of a prime. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said that bonding is a challenge for small businesses. “If you don’t have assets or a good, solid financially valued business, then you’re not going to build a bond. So, it’s kind of building blocks.” He added that his firm has been able to obtain small bonds but said, “If I want to go out and bond a \$1 million project, there’s not a chance. You just can’t [just decide] ‘I’m going to be a prime’ even a small prime unless you have any money in the bank or lines of credit and you have to have a track record and a history. It’s going to be impossible [for a] small business with no real capital or financial resources. [It is] going to be tough to bond anything.” [FHWA#10]

Other interviewees reported little or no problem obtaining bonds, or said that bonding was not required in their industry. [e.g., FHWA-WT#17, FHWA-WT#25, FHWA#5, FHWA#7, FHWA#36, FHWA#39a, FHWA#40, FHWA#44, FHWA#45a, FHWA#59] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that bonding, from his perspective, “is like an insurance policy.” He continued that in order to get a contracting license in the State of California a contractor needs bonding but that he has never had a problem with bonding. He said that now, compared to years past, even firms from out of state are competing to provide bonds for his business, which lowers the price a bit. [FHWA#37]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that obtaining bonding and insurance is not an issue for her firm because they do not reach above their limits. She said that it is critical to have a good relationship with a broker. Her firm always knows where they are within their limits, and they do not bid beyond their capability. [FHWA#3]

Insurance. The study team asked business owners and managers whether insurance requirements and obtaining insurance presented barriers to business success.

Some interviewees identified challenges obtaining insurance. For example:

- The Subcontinent Asian American owner of a DBE- and MBE-certified engineering firm reported that “Quite a few occasions when we try to set up appointment with different insurance firms quite a few times it gets burned. And even you show up, and then they suddenly become unavailable.” He added, “These sorts of things never happened before in my former life as a state official or as a project manager for a big company. But when you’re a DB firm, you start to encounter these kinds of things.” [FHWA-PF#15]
- The Black American female owner of a DBE-certified construction-related business stated that her she is currently experiencing challenges in obtaining insurance. She noted that

brokers many times would only want to assist a small business if the broker covers all of the businesses' insurance needs (e.g., errors and omissions, health, general liability, professional liability). She said she has told these brokers to "kick rocks." She continued, "I am still a fish out in this big sea trying to figure where do I land [From whom] do I get the help?" [FHWA#48]

- Regarding the barrier of incurring insurance costs, a principal of an Economically Disadvantaged Woman-Owned Small Business (EDWOSB-), DBE- and SBE-certified construction-related firm reported that prime contractors have unrealistic expectations of subcontractors in the public sector. She commented, "It is not affordable for the small contractor to pay additional insurance cost just to secure the contract." [FHWA-WT#14]
- The Black American female owner of a new construction-related business said that she assumes "insurance could be an issue and I assume it's really going to be expensive getting started." [FHWA#2]

Many interviewees said that they could obtain insurance, but that the cost of obtaining it, especially for small businesses, was a barrier to sustaining their businesses or bidding certain projects. [e.g., FHWA#38, FHWA#46a, FHWA#50, FHWA#55, FHWA#58] For example:

- The Subcontinent Asian American male owner of an architecture and design firm reported that his firm experienced one instance on a North San Diego Transit Agency project where insurance was a barrier. He reported that the agency required much higher coverage than usual, and the higher coverage level was cost prohibitive for his company. [FHWA#6]
- The president of a DBE-, SBE-, and MBE-certified engineering and construction firm reported that "getting insurance has not been a problem affording it is another matter." He added, "There is no choice no insurance, no business." [FHWA-WT#11]
- The non-Hispanic white female representative of a general contracting company stated that insurance costs have dramatically increased in recent years. She noted, "Our worker's compensation [insurance] is very high. Our general liability is much higher." She reported that the basis for insurance costs are the firm's volume of work and not limited by the number of employees. [FHWA#43]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that insurance is a very important key to business success. He also says that with many of the firm's private projects the insurance requirements are steep. "Insurance is scary and super important." He stated that his firm carries up to \$4 million of insurance, which for a small firm "is very expensive to carry." [FHWA#44]

One interviewee reported concerns about small businesses' ability to secure health insurance for employees.

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm indicated that meeting insurance costs is a challenge for his firm. He said, "Health insurances kill you. The errors and omissions, malpractice, and health insurance are expensive. I pay roughly \$500 a month per employee for health insurance, and it goes up every year." [FHWA#45a]

Many interviewees reported that, while insurance requirements are not barriers to success, insurance is a major business expense. [e.g., FHWA#47, FHWA-WT#17, FHWA-WT#34, FHWA#17, FHWA#21, FHWA#36, FHWA#39a, FHWA#40, FHWA#42, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#56] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that he has had insurance in the past; but, in the residential market, no one asks for insurance. The owner stated, “If I’m asked for [insurance], I’ll go out and get it.” He remarked, however, if he had work with Caltrans, he would definitely get insurance “because the money would be there to take care of it.” [FHWA#37]
- The Black American male owner of a DBE- and SBE-certified contracting firm stated that insurance is “a blanket; you can’t really generalize it as a key because it fluctuates. There are some prime contractors that allow you to work with them as long as you meet the insurance requirements.” [FHWA#61]
- The Black American male owner of a DBE- and MBE-certified construction company stated that while insurance is a necessity, it was also important to get a good deal. He said, “I think you have to get a good insurance agent you feel is fair with you for prices.” [FHWA#60]

Timely payment. Some interviewees reported that lack of timely payment by customers or prime contractors is a barrier in both public- and private-sector work.

Many interviewees said that slow payment by the prime contractor is an issue and can be damaging to companies in the public contracting industry. [e.g., FHWA-PF#4, FHWA-PF#5, FHWA-WT#17, FHWA#9] For example:

- When asked if the company has experienced any issues with timely payments the Hispanic American male owner of a parking facility noted, “Yes, there are a couple of locations that I’ve worked with [where] the contract is set-up where we provide the services and they pay me for the services rendered. That’s the issue that I have right now that there’s that type of contract, I don’t know why it’s so hard for them to pay on time. So, it’s on a month-by-month basis, there are some locations that take more than a month to pay for the services. I had a location that we worked there for a year and a half. I had to go in there and figure out a way to park 150 cars of tenants that were still working in the building where construction was going on next to them. So, I mapped out a plan of where to park the vehicles and did the whole thing. And throughout the year and a half or year and seven months we were there we had issues with getting paid.” [FTA#3]
- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm expressed timely payments can be a barrier for small businesses, “Getting paid is the hardest part. The government is very slow at payment, and you have to keep reminding them. The hardest part of our work, is actually getting paid for the work that we did in a timely manner, especially when projects are still moving forward and we’re in start-up mode. We started the job from, ‘What do we want to do here?’ and got [the job complete] in ten months. Typically, projects like that take three, four, five years. We were on a quick timeline, we kept moving forward with the project without getting paid for quite some time, and that was really difficult for us to do. Then, at the end, they tried to negotiate

the payment and that was really frustrating. We do good work, but sometimes everybody wants to be cheap, and so getting paid is one of the hardest parts of this work.” [FTA#8]

- When asked if he faces challenges with payments from primes, the Hispanic American male owner of a DBE-certified construction-related firm responded, “Yes, they were all public. Not Caltrans. I do not sit back and just let people walk over me. I’ve had to fight for my money, but I shouldn’t have to.” [FHWA-PF#2]
- The Black American male owner of a specialty contracting business reported that timely payment could be an issue. He said, “Over the years I’ve found that [on] the few jobs that I’ve done, it’s been hard to get paid on time...with a mainly residential company like this, I’m used to being paid as soon as I’m done with the work. So, it’s a big transition to have to wait a couple of months to be paid.” [FHWA#27]

Licenses and permits. Certain licensing or other approvals are required for both public- and private-sector projects. No interviewees reported specific keys to business success related to licensing and permits, although some did report challenges or barriers to obtaining permits. [e.g., FHWA#8, FHWA#16, FHWA#27, FHWA#33, FHWA#53, FHWA#58]

Other keys to success. A number of businesses mentioned keys to their success that do not fall into the above categories such as safety issues, time constraints, and other factors. For example:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm talked about how his company responds to winning new contracts. “[When] we win a new contract, in some cases, we are assuming a contract from a previous company and in general, we hire their existing workforce and keep doing things very similar to what they were doing so the transitions are fairly smooth and simple. But we’ve also had to step in and hire completely new teams from zero and start operations within a matter of weeks, so we’re very responsive and we have all the processes and systems in place to quickly get to market, recruit people, hire people, and get things moving to be ready for work when new contracts happen.” [FTA#15]
- The Hispanic American male owner of a specialty contracting company said it is important for business owners to be totally engaged in projects. He said, “I have seen a lot of companies go down the drain” because of lack of owner oversight and supervision. [FHWA#40]
- The non-Hispanic white female owner of a DBE-certified consulting firm indicated that another major key of business success is, “[Love] what you do.” [FHWA#55]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm said that having low overhead costs is a factor in his firm’s success. He said, “For me, I cut the overhead so I, in my company, I do my accounting, I do my invoices.” He stated, “I operate from home with all the low overheads, I can afford to pay my employees well.” [FHWA#14]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm said, “[DBE] certification can be a key to business success.” He added, “If it is required to use DBE, the agency has to be strict on the use. There needs to be some follow-up and

follow through to ensure DBE utilization.” He said that, without enforcement, DBE certification does not help. [FHWA#54]

- The Black American male owner of a DBE- and SBE-certified contracting firm indicated, “Time and knowing your market will be key [to success]. Knowing what is best for you as to where you spend most of your time so that you don’t waste your time.” [FHWA#61]
- When asked for additional factors to his success, the Black American male owner of an MBE-certified contracting firm reported, “Safety’s another big issue.” [FHWA#15]
- The non-Hispanic white male owner of a specialty contracting company stated that “the biggest key to success is to be confident, which I am, honest, and a hard worker.” [FHWA#51]
- The non-Hispanic white male representative of a general contracting company advised new firms to “grow small [and] grow slowly. It is pretty easy to run yourself out of cash because there is a high demand for working capital as you grow.” [FHWA#41]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that an important key to business success is establishing teaming arrangements with other firms in order to be more competitive. [FHWA#44]
- The non-Hispanic white female owner of a DBE-certified consulting firm indicated other keys of business success include having a great team. She elaborated, “You have to understand the job but you have to have people that are good in each field that you’re working to help the employees understand the job situation and the consumer [the] customer [and] clients.” [FHWA#39a]
- The Black American male owner of a DBE- and MBE-certified construction company commented that gradually moving up to larger and larger jobs were important for business success. He said, “You need to graduate from a certain size job...you need to go a hundred thousand, two hundred thousand bid, three hundred thousand, build your company up, you know. You got to be careful, you can’t just jump out there and try to do the biggest job.” [FHWA#60]

D. Doing Business as a Prime Contractor or as a Subcontractor

Business owners and managers discussed:

- Mix of prime contract and subcontract work;
- Challenges for small or minority- or woman-owned businesses to work as prime contractors or consultants;
- Prime contractors’ decisions to subcontract work;
- Subcontractors’ preferences to work with certain prime contractors; and
- Subcontractors’ methods for obtaining work from prime contractors.

Mix of prime contract and subcontract work. Business owners described their experience as prime contractors and/or subcontractors.

Many firms that were interviewed reported that they work as both prime contractors and as subcontractors/subconsultants [e.g., FHWA#4, FHWA#11, FHWA#15, FHWA#16, FHWA#17, FHWA#18, FHWA#20, FHWA#27, FHWA#29, FHWA#31, FHWA#39b, FHWA#42, FHWA#44, FHWA#50, FHWA#52, FHWA#55, FHWA#58] or as suppliers/service providers. [e.g., FHWA#21, FHWA#56] For example:

- The non-Hispanic white male owner of an SBE-certified consulting firm explained that most of the work he has performed has been as a subcontractor. When asked if he has performed work as a prime contractor he stated, “Yes, but they were very small jobs and short lived.” [FTA#1]
- When asked if the firm works as a prime contractor or subcontractor the Black American female owner of a transportation firm stated, “We have both types of contracting agreements. We have a few subcontracting agreements with other transportation companies and then we have our own primary contracting with certain facilities that we service. Then there are other times that people hear about our company through word of mouth. They see us on the road or maybe they’ve done business with a company we’ve done business with and they were referred to us. And they want to work with us in a more long-term situation. That really is how the subcontracting arises.” [FTA#2]
- When asked if the firm does work as a prime consultant or a subconsultant the non-Hispanic white female representative of an engineering firm stated, “We do both but primarily as a prime contractor. We sub consult to larger projects where they’ve got a different firm as the prime, but we have many of our own projects that we’re the prime and we have subs for us.” [FTA#4]
- When asked if the firm does work as a prime consultant or a subconsultant the non-Hispanic white female owner of a DBE-certified engineering firm noted, “I would say 85 percent of my projects, since I started the company, have been sub-consultant. I’m a sub-consultant to most civil engineers or to the city I could be a prime consultant. Most of my work is as a subconsultant for a civil that’s managing the project. It depends on their workload and when they get their stuff done and get it to me, so I can do my portion on the project.” [FTA#6]
- When asked if the firm works as a prime contractor or subcontractor the Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm noted, “We do both. I am more of a sub, but I completed a recent job in downtown [California City] that was very large, and, in that project, I was a prime consultant, and sometimes I’ve been asked to prime, so it’s fairly split. About 50-50.” [FTA#8]
- The Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm explained that the firm works as both a prime and subcontractor, “I would say 80 percent is the prime contract, and 20 percent are subs or joint venture. We provide not only the land surveying as well as the engineering surveying, but also architectural services which allows us to be subs.” [FTA#9]
- When asked if the firm primarily works as a prime contractor or a subcontractor the Hispanic American representative of a woman-owned trucking firm noted, “We pretty much do what needs to be done. So sometimes it’s as a sub or sometimes we work direct as

a prime, so it just depends on what is offered to us. The experience has been great we couldn't be happier. We're doing very well." [FTA#17]

- The non-Hispanic white male owner of a specialty construction firm stated that he has never been a prime contractor on any public works projects. He went on to say that he would sometimes perform as a prime on some residential projects. [FHWA#37]
- The non-Hispanic white male representative of a general contracting company reported that approximately 70 percent of his firm's work is as a prime. He added that his firm has several specialty divisions that allow the firm to work on jobs as a subcontractor if they cannot act as the prime. [FHWA#41]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, "If we have a prime opportunity we go for the prime. If asked to be a sub, we will be a sub. You get what you can." [FHWA#45a]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that he has worked as a prime and a subcontractor. He went on to say he prefers to be a sub on larger jobs because there is "a lot less risk." The owner reported that his company has been a prime contractor on a few smaller jobs but said that a company can reduce risks and secure a solid profit margin as a subcontractor. [FHWA#47]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm indicated that the company works both as a prime and as a sub. He said for "some of the smaller projects it works a lot better for us to be the prime, that way we have all the control over it." He added that for bigger projects they are not able to work as a prime. He said, "We'll let somebody else kind of handle that stuff." [FHWA#23]
- The representative of a DBE-certified non-Hispanic white female-owned civil engineering firm observed, "It depends [on] if we think we have a chance to land the project as the prime contractor. If we have performed a certain type of project work before as the prime, we are more likely to prime the project." She also stated, "We only use subs when we prime, not sub on a project. If we sub, it's for a small project and we are the very specialized part, then we don't need subcontractors." [LAM#6]
- The Asian American male manager of an international architectural, planning, and engineering services firm stated "I don't have the exact percentages. But we're comfortable being both. I would say a good number could be 50/50. We're ok priming projects, we're ok subbing to projects. Typically, with the much larger-scale projects, if you're talking about hundreds of millions of dollars, or billions, we're typically a sub-consultant in that role. But with projects of a medium-size scale or smaller, we could easily prime." [LAM#12]
- The Black American male co-owner of a DBE-, MBE-, and SBE-certified architecture firm explained, "It's a combination of both. We would like to be prime more, but the constraint is having an abundance of the projects you can prime on. Subcontractor work can be easy, but you don't get meaningful work. I have worked on projects where there is a \$3M architecture fee, but where a support architect's fee is \$250,000. That is not a meaningful role - you only work here and there. It's also the culture, because architects don't like sharing work." [LAM#15]

- The non-Hispanic white male representative of a regional disadvantaged business association stated that members are “more or less equally divided” between working as primes and as subcontractors. He observed, “It often depends on the size of the contract. Members cannot handle contracts that are too large and therefore tend to work as primes on smaller contracts—under \$3 million.” [LAM#41]
- The Asian American male manager of a non-Hispanic white male owned-engineering and consulting firm stated that the firm performs work “30 percent as a prime, and 70 percent as a subcontractor.” The reason for the higher percentage as a subcontractor is because the firm gets the majority of their projects from architects and design-build contractors. [LAM#28]
- The female representative of a non-Hispanic white female-owned specialty construction firm stated that 90 percent of the firm’s work is focused on subcontractor work and the remaining 10 percent of their work is as a prime. The reason her firm most often works as a subcontractor is due to the business’s specialty license. [LAM#31]

Some firms that the study team interviewed reported that they primarily work as prime contractors or prime consultants. [e.g., FHWA#6, FHWA#12, FHWA#26, FHWA#49] For example:

- When asked how the company finds work the Hispanic American male owner of a parking facility stated, “To be honest with you I’m online, social media, and Google. So, whenever a location wants to change the parking company because they are not happy with the type of work that they’re getting or the type of service that they’re getting. I’ve been lucky that I have gotten calls and I go and check the location out, give them my card, have a meeting with them, pretty much sell myself to them and explain to them why I am the right candidate to take over that location, to give me that contract. I am the prime contractor for all my contracts.” [FTA#3]
- The Black American male owner of a DBE- and SBE-certified contracting firm reported that he does business primarily as a prime contractor because when he started his firm, he thought that it would be easier as a minority-owned business to obtain prime contracting jobs than to obtain subcontracting jobs. [FHWA#61]
- The non-Hispanic white male representative of an SBE-certified engineering firm stated that his firm typically works as a prime consultant. He reported that the reason they are primes is due to the nature of the services they provide and the size of the contracts. [FHWA#28]
- The owner of a majority-owned construction-related business reported that his firm always acts as a prime contractor due to the specialized nature of their services. [FHWA#36]
- The non-Hispanic white female representative of a general contracting company stated that her firm works as a prime contractor. She said, “We are much more qualified to be a prime rather than to get pigeon holed into one or two small categories [as a subcontractor].” [FHWA#43]

- The non-Hispanic white male owner of a concrete inspection agency said that he does business primarily as a prime contractor. “Our company is considered a prime. By code we’re always supposed to be paid by the contractor.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company indicated that he prefers to do business as a prime contractor because then he can have more control over the treatment of his subcontractors. He said, “We’re going to be fair with them and we are paying them. They can feel totally comfortable with us.... I don’t feel that with primes because you’re just a number.” [FHWA#60]
- The Black American female owner of a janitorial services firm reported that her business always acts as a prime contractor. She explained that her firm prefers this role because it offers “Full autonomy. Full control and not having to deal with someone else’s rules [when you are] a subcontractor.” [LAM#26]
- The non-Hispanic white male owner of a trucking firm stated that the firm acts a prime contractor on all of its projects. He indicated there are no companies that can afford to hire his firm as a subcontractor. [LAM#23]
- The non-Hispanic white male owner of a specialty trucking firm stated that his firm works as a prime contractor the majority of the time. He stated that when customers or clients seek his firm’s cargo and freight services, they find him and have direct contact with him to determine pricing. [LAM#24]
- The non-Hispanic white male owner of a janitorial services firm explained, “We don’t have any subcontractors. We do our own business. We don’t subcontract to anybody, and we don’t subcontract under anybody. We deal with our own clients directly.” When asked why the firm does not work as a subcontractor, the same interviewee responded, “You build somebody else’s name on your own effort if you work for somebody as a subcontractor. So, I would rather build my own name and my own company rather than help someone else. I don’t believe in subcontracting.” [LAM#9]
- When asked to describe how often the firm works as a prime contractor or a subcontractor, the non-Hispanic white male owner of a pest control firm responded that the firm always works as a prime contractor. When asked why, he replied, “I just haven’t had any subcontracts. As I prime contractor, I like to have control over everything.” [LAM#14]

Some other business owners and managers reported a preference for the subcontractor role, being limited to subcontracting based on the nature of their work, or having difficulty breaking into the prime contracting arena. [e.g., FHWA#7, FHWA#9, FHWA#10, FHWA#19, FHWA#22, FHWA#25, FHWA#32, FHWA#34, FHWA#35, FHWA#38, FHWA#40, FHWA#46a, FHWA#53, FHWA#54, FHWA#57]

- When asked what is the mix of prime contracting versus subcontracting work for the firm, the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm stated, “It’s probably 70% we’re prime and 30% we’re sub. That’s what’s available right now and another part is because of what we do, we’re an electrical firm. The opportunities that we see, from a bidder’s perspective, we’re looking at jobs that fit our requisite but the sub opportunities, we’re like a smaller piece of a big project. Most of the big jobs out there are big, civil project jobs or big developer jobs. You’re typically not the prime for those.

Then, public sector we've had success looking at those bigger jobs, we tend to stay away from them simply because the margins are so low." [FTA#7]

- When asked if the firm works as a prime contractor or a subcontractor the Hispanic American representative of trucking firm stated, "Sometimes, it's both, but mostly subcontractor. We mostly do subcontractor work because big companies own the big contracts." [FTA#16]
- The Hispanic American female owner of an MBE-certified specialty services firm stated that her firm only works as a subcontractor and not as a prime contractor. She indicated that this is because she has an "A" class license not a "C" class license that limits her to the role of subcontractor. [FHWA#5]
- The Black American female owner of a construction-related business stated that she anticipates working as a subcontractor because of "the nature of the business and lack of funds." She added that she would eventually like to grow her business to the point where she can act as a prime contractor. [FHWA#2]
- The non-Hispanic white male owner of a specialty contracting business said that he "sometimes" prefers working as a subcontractor because he does not have to hear unreasonable complaints from the client. He said, "[The prime contractors] have to deal with the client, not me." [FHWA#31]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that her firm generally performs as a subcontractor due to the nature of their business. She reported that her firm once had a long-term contract with the City of Los Angeles [as a prime] because the project requirements were very specific and required a firm to be located within a small radius of the project site. [FHWA#3]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that most of his firm's work is subcontracting. He said, "It depends on the project and it certainly depends on the client." He said he prefers to prime a project because "you have the control, direct interface, not a whole lot of interpretation of communication." [FHWA#30]
- When asked if his firm works as a prime contractor, subcontractor, or both, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm stated, "I try not to be a prime because as a prime, I'm pretty much going to have to get a bond. And you don't want to do business with [bonding companies]." He added that this was "because a lot of the bonding companies have ties to organized crime. That's how they launder their money. Actually, I have an advantage because I'm a small business. I have a real advantage because they [the prime contractors] have to be competitive on a very large scale. And to do that, they have to use subcontractors that they may or may not have worked with before and have to believe that they will do the work correctly." The interviewee went on to say that having such a large operation makes it much harder to profit from a contract. [FHWA#8]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that her firm always works as a subcontractor and learns from primes about the industry. She said, "As a sub, I am not responsible for the entire [project] [as a

prime] if something goes wrong on the project, then you are responsible for it [and] that will put you out of business.” [FHWA#48]

Challenges for small or minority- or woman-owned businesses to work as prime contractors or consultants. Business owners described the challenges they faced working, or attempting to obtain work, as prime contractors or prime consultants. For example:

- When asked about challenges in working as a prime contractor, the Black American male owner of a telecommunications firm stated, “If it’s a substantial contract you have to be efficiently capitalized to be able to satisfy the requirements. Usually you have to finance the deal. So, depending on the size of the deal, you have to have the financing available. Unfortunately, in the minority community you usually don’t have a rich uncle to go ask for the money, and there are no financial institutions that invest in start-ups with a concept. People don’t invest in concepts. You have to be established and share some history.” [FTA#13]
- Speaking about challenges for small businesses pursuing work, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated, “I think the biggest challenge for any small business has to do with name recognition and reputation. Competing with large, global companies that have a name that people have seen and heard, it’s difficult as a small business to convince someone that you can actually do the job.” [FTA#15]
- Regarding challenges that a small business faces when acting as a prime contractor, the Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that “challenges such as paperwork, insurance, bonding, capacity, access to capital are amplified by a factor of ten [when working as a prime contractor].” [FHWA#47]
- The Native American male owner of a DVBE-certified transportation firm commented that the challenges he sees for small businesses that work as primes depends on the size of the project. He explained, “Being a prime contractor, well it’s really hard because you got to start small. You have to get the Minor B contracts, those contracts \$281,000 or less to be a prime contractor because you’re not going to get the bonding for anything larger.” The owner added that the challenges for minority-owned firms differs depending on the specific type of business and on relationships the company may or may not have. [FHWA#57]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm said, “The biggest hurdle is the size of the project. That is true especially in a project where you may not have enough employees.” [FHWA#50]
- The non-Hispanic white female owner of a DBE-certified consulting firm indicated, “A challenge is having few minorities or women in business. You can feel a little isolated. Also, dealing with all male groups like construction. We educate; these guys do not like having a female telling them what to do, teaching them or presenting an education class. That’s not as acceptable to them as another man telling them.” [FHWA#55]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm stated that he only performs work as a subcontractor. He stated that “to be a prime is a big step.” He explained that he does not have the resources to pursue work as a prime

contractor. He said that he could not compete with the large companies who have “people dedicated to building relationships, writing proposal, and are trained in interviews.” [FHWA#14]

- The non-Hispanic white male representative of a DBE-certified construction-related firm when asked about challenges for minority- or woman-owned small businesses responded, “Today, I’m going to go out on a limb and [say that] maybe the “good ol’ boy” network still exists; but not as much as it used to 30 years ago.” He added, “I think the playing fields have improved and are much leveler today.” [FHWA#53]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that, recently, her firm must work as a subcontractor because her public agency clients have extremely high insurance requirements. She said, “More recently, I will only work as a sub because of the indemnification clauses and some insurance requirements for some public agencies, which are unwilling to make any change with respect to liability.” [FHWA#55]
- The Native American male owner of a DBE-certified construction-related firm when asked if there are challenges for small business to work as a prime said that a small business bidding as a prime contractor is “like little fish swimming in a shark tank.” He says there are larger firms with internal resources to pursue projects and present owners with nicely packaged proposals. He went on to say, “You know, writing a proposal is very difficult for a small firm.” The owner reported that he is not aware of challenges faced by minority- or woman-owned firms. [FHWA#49]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm stated that her firm works primarily as a subcontractor. She reported that she attributes this to the lack of staff and resources required to work as a prime contractor. [FHWA#13]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that the level of risk and liability of working as a prime contractor is usually too great for a small business to handle. The owner stated that, as a minority female, she is required to demonstrate that she understands the construction industry and that her employees are held to a higher standard. She also said, “I have so many other barriers that white people do not have to face because they are white.” [FHWA#48]
- The Subcontinent Asian American male owner of an architecture and design firm said that one of the challenges his firm faces trying to gain work, as a prime, is their size. He reported that they know they can do bigger projects, but potential clients look at their size and question whether they can do the work. He said, “In reality, design work does not require you to be large. Many other big-name design firms don’t have that many people. It’s really not about size.” [FHWA#6]
- The non-Hispanic white male representative of a general contracting company when asked if he has observed any challenges specific to minority- or woman-owned small businesses stated that minority and woman-owned businesses sometimes contract for more work than they can handle because the opportunities are available. He added that those firms may not have the financial strength to manage the work and they get into trouble. [FHWA#41]

- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that paperwork is a big challenge for small businesses working as primes. He remarked, “We have to put so much paperwork together just for payroll.” He said they need one payroll report to pay their employees, a different payroll report for Caltrans, and another payroll report for the prime. [FHWA#23]
- When asked about specific challenges to working as a small subcontractor, the female representative of a CUCP WBE-certified specialty construction firm stated, “When you’re a smaller company you have to have a little bigger margin to cover because you have less quantity that you’re doing.” She added, “So when you do go out and you bid a job, you know you’re bidding against somebody that can underbid you because they have more work; they don’t have to have that, the higher margin.” [FHWA#16]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm reported, “In my business, [the challenges is] getting the project. You have to have experience. Some public agencies require that you have experience with [that agency], which is sort of a ‘Catch 22.’” He also said, “I think the biggest problem being a prime is getting the work from the public sector. With the private sector, we are always a prime. Virtually all of our private work is a prime.” [FHWA#45a]
- Regarding challenges for women- and minority-owned firms, the same business owner reported that far more subcontractors are woman-owned than are minority-owned. He said, “I think basically we deal with a lot of subcontractors that are women. I’ve only had a couple of minority owned companies that I’ve worked with, and I was a subcontractor to them.” [FHWA#45a]
- Regarding challenges for small businesses to work as prime contractors, the non-Hispanic white male representative of a general contracting firm indicated that small businesses see challenges “in trying to figure out how to estimate a job and bid it. And so, they may or may not be accurate in their bidding.” [FHWA#26]
- The non-Hispanic white male owner of an architecture-related consulting firm indicated that one of the challenges for small businesses working as primes is interacting directly with the agency rather than having a prime contractor as a buffer. He said, “When we’re leading the project it just gets more complicated, [and we have] more responsibility.” He noted that “one of the biggest tricks in public work is working through the approvals process and trying to sort out where things overlap or are redundant or contradictory [while] still maintaining high quality project.” [FHWA#30]
- The non-Hispanic white male owner of an engineering firm said, “I think [minority and women owned businesses] have the advantage.” He added that since the public sector has goals for disadvantaged-, minority-, and women-owned businesses, these firms have an advantage. He further said, “As far as I’m concerned, I think [the DBE/WBE/MBE] percentage is unfair. The fact that I’m not disadvantaged is unfair.” [FHWA#42]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said, “It’s a struggle being a minority-owned firm, especially when you are trying to get a foothold in the business. [There are] companies out here that have been in business for 50 years and you are trying to compete. You are trying to get your name out there so it is

tough and there are struggles with being a minority. It's mainly just trying to get a foothold in the business." [FHWA#19]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm commented regarding challenges for small businesses, "There's too [much] paperwork." [FHWA#38]
- The non-Hispanic white male owner of a specialty construction firm said, "General Contractors have a reputation for paying you slowly." [FHWA#18]
- The non-Hispanic white male owner of a concrete inspection agency indicated that women may have some disadvantage because they are viewed as not having on-the-ground experience in the industry. "They've learned through a book, more than likely. So now they are the compliance agent and they're telling the contractor what to do and what not to do. And some of the contractors don't like that because there is an advantage of being in the industry. Knowing there is a problem that you can work around over an email coming in and saying absolutely you can't do it this way? The only reason why she knows that [is] because it's typed in the code book." [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company said that the challenge he believes small businesses have working as primes is the amount of credit they have toward the payroll. When asked about challenges for minority- or woman-owned businesses, the same business owner responded that "one of the biggest challenges is that some people don't think you are qualified to do the work and often they will just tell you that." [FHWA#60]

Some business owners reported that they do not have experience with, or knowledge of, challenges for small, women- or minority-owned firms working as primes. [e.g., FHWA#20, FHWA#61] For example:

- The representative of an MBE-certified transportation services firm indicated that her company operated as both a prime and a subcontractor, and she did not observe and particular challenges for a small business or a minority-owned business in working as a prime contractor. [FTA#12]
- The non-Hispanic white female owner of a DBE-certified consulting firm explained that she did not see any challenges for small businesses that work as primes. She indicated, "I guess the biggest problem you'd have is just making sure you have all the resources you need to do the job. I would make sure you have the personnel and everything to do the job, you know, that's the big thing." [FHWA#39a]
- Regarding minority- or woman-owned firms, the same business owner said, "I think the hardest part is getting through the hoops of getting certified and then there's so many different certifications and getting to the entities, different entities, [for example] Caltrans and others." [FHWA#39a]
- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider reported that being "minority-owned is not really" an issue. He said, "It doesn't really affect anything." [FHWA#21]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm, regarding challenges for minority- or woman-owned firms commented, “Once you have the certifications, there are always jobs that need the certification.” [FHWA#38]
- The Hispanic American male owner of a specialty contracting company stated that challenges for minority- or woman-owned small businesses are different for each individual. He further explained that he is aware of individuals who were unable to speak English when they began to work with his company because of their lack of education. He said they “followed in my footsteps and their businesses became big.” [FHWA#40]
- The non-Hispanic white male owner of an SBE-certified consulting company said that the challenges encountered when working as a prime are no different for small businesses than for large businesses. He said, “The tasks are the same just managing the people, communication with the client, and managing expectations.” [FHWA#44]
- The non-Hispanic white male owner of a specialty contracting company said, “I’ve worked around a couple of [Black Americans], and they were just as good as me. I don’t see what their challenges are. I mean they’re good.” [FHWA#51]
- The non-Hispanic white male owner of a concrete inspection agency stated that he did not see any challenges for small businesses that work as primes. He said, “It is more of an advantage working as a prime over working as a sub working under a contractor.” [FHWA#59]

Prime contractors’ decisions to subcontract work. The study team asked business owners whether and how they subcontract out work when they are the prime contractor.

Some prime contractors said that they usually perform all of the work, subcontract parts of a project based on specialty, or subcontract very little of a project. [e.g., FHWA#44, FHWA#39b]
For example:

- When asked if the company subcontracts work, the Hispanic American male owner of a parking facility stated, “I think the more you grow, what you need to do is instead of subcontracting you need to surround yourself with the right people, promote from within, so that’s my philosophy. If I’m getting more locations, I start training people that have already been with me because they know what the company culture is. They know what needs to be done, they know how I like to work.” [FTA#3]
- The representative of an MBE-certified transportation services firm stated that her firm’s decision to subcontract work, when operating as a prime, is largely related to whether or not her company possesses all of the required equipment for the work or whether they need to get a subcontractor for specialized or specific equipment and expertise. [FTA#12]
- The non-Hispanic white male representative of an engineering firm reported that when the firm performs as prime contractors, they often subcontract out work in specialty fields. [FHWA#33]
- The non-Hispanic white male representative of a general contracting company reported when acting as a prime contractor stated, “We self-perform 60-70 percent of our work, but

we look for opportunities to subcontract on every job.” He noted that his firm self-performs all work where schedules are rigid. [FHWA#41]

The same business representative added that, on jobs where schedules are not rigid, his firm decides whether to subcontract out work and to which companies to subcontract to, based on capability and price. [FHWA#41]

- The non-Hispanic white male owner of a trucking firm stated that his firm could not hire subcontractors due to the firm’s union contract. [LAM#23]
- The non-Hispanic white male owner of a specialty trucking firm stated that his firm would hire subcontractors to complete an order or contract. He indicated that his firm reuses subcontractors that the firm has worked with in the past, and with whom the firm has an established relationship. [LAM#24]
- The non-Hispanic white female owner of a WBE- and SBE-certified supplier firm explained that her business is a supplier. She explained that there are certain pipes that her firm provides that require fabrication; for these orders, the firm will sub out the product manufacturing. Her firm will hire the fabricator who can deliver the product “the quickest, factoring in quality and reliability of the product.” [LAM#30]
- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm responded that the firm may hire subconsultants on some private sector civil engineering projects that are not associated with public works. [LAM#2]
- The Asian-Pacific American male manager of an international architectural, planning, and engineering services firm indicated that the firm hires subcontractors. He added, “If there are specialties involved [we subcontract]. For example, if we’re hired on as traffic engineers, we will subcontract counts. People who go out to the field [that] survey and count, we’ll hire them on as a sub.” [LAM#12]

Prime contractors reported selecting subcontractors based on quality of work, goal requirements of a project, or other factors. [e.g., FHWA#39a, FHWA#55, FHWA#58, FHWA#60, FHWA#61] For example:

- When asked how the firm finds subcontractors the non-Hispanic white female representative of an engineering firm stated, “Probably similar to what Caltrans does. We find experts in the field. We usually get multiple bids or proposals for the work. We see past and prior experience. We oftentimes look at the jobs to see if they were done to our level of expertise, then we pick from there. We have a few that we work with more often than not because it's just the way that it worked out. We go through the competitive bid process to select usually.” [FTA#4]
- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm talked about how he selects subcontractors on projects in which his firms works as a prime. He stated, “I typically will delegate out items that are not within our expertise, so if there's an aspect that requires folks to go out there and do some traffic counts and adjust the signal timing, and do a model of the traffic area, then I will typically sub that kind of work out and we will focus more on the bicycle design and the roadway

design. That way, we complement each other over having a lot of overlap. For me, because I'm in a niche, when I try to sub to a larger firm, they typically have overlap to me, and so that's where the difference is." [FTA#8]

- The Black American male representative of a general contracting firm stated that they look at the job and see if there is a DBE goal. "We find out exactly what that goal is and we make sure [we] meet that. [We also] look at the project and see what kind of work [we] can give to a small disadvantaged business and the value of that work so we can meet that goal." He said they "break up the project and find as many DBEs as we can to bid on each of the types of work that we break out. We also look at our work that we usually do ourselves and see if we can break it down into smaller packages and see if we can give that to our DBEs to assist them." [FHWA#26a]
- The Subcontinent Asian American male owner of a DBE-certified engineering firm stated that he has a few subcontractors that he uses. He says that they are minorities, "and they are good to me. [Non-minorities] think a different way. [I am comfortable doing business with] minority people because they know me [and] I know them [a] little bit. Minorities handle thing[s] in a different way." [FHWA#12]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm said, "For subs we usually look at the [Local Business Enterprise] minority firms. If I have a job, I'd give it to a minority firm." [FHWA#50]
- The non-Hispanic white female representative of an SBE-, DVBE-, and SDVOSB-certified consulting firm reported that, even though her firm is a small business, it is still required to meet small business subcontracting goals when working as a prime. She stated, "On occasion if we are the prime, despite the fact that we are a small business, we still have to follow their requirements." She added that a program administered by a certain municipality requires small local businesses to give away a portion of work to other small local businesses. She said, "Sometimes we are making decisions or choosing [subcontractors] based on what our requirements as a prime are." [FHWA#45b]
- The non-Hispanic white male owner of a concrete inspection agency reported that he chooses subcontractors based on experience, quality of work specialty, references, and availability. [FHWA#59]

Many prime contractors indicated that they use the subcontractors with whom they have a pre-existing relationship. [e.g., FHWA#28, FHWA#44, FHWA#45a, FHWA#49, FHWA#60] For example:

- The non-Hispanic white male owner of an SBE-certified consulting firm expressed the challenges finding quality subcontractors in a rural area by stating, "If you have a bigger project that you need to have done in a rural area like mine, you're probably not going to get anyone bidding at the time. They're all going to come from outside of the area because they've got the bonding capacity, they've got the crew, they've got all the resources they need to execute a larger job. Maybe they'll use some local subs, maybe they won't. DBE and DBD don't have any requirements for geographic locality for jobs. If I'm a contractor and I'm bidding on a job, a remote job to me, I'm much rather wanting to use a bid from a sub I know and that I've worked with before and that I'm going to be working with in the future

than some local yahoo I've never heard of before even though he might be a little bit lower. I'm not going to take the chance over a few hundred or a few thousand dollars on a larger job." [FTA#1]

- When asked about the business's decision to subcontract work and to whom, the Black American male owner of a telecommunications firm indicated that his firm regularly works with repeat contractors that are known to him. He stated, "We work with the contractors that we [know]. We have a pretty good list of contractors that we use, and that we have history with. These are our first choices." [FTA#13]
- The Hispanic American representative of a woman-owned trucking firm commented about how the firm selects subcontractors to work with, "It's all about who we've had past experience with and we just apply that to who we choose." [FTA#17]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated that his firm subcontracts out inspection, direct management, and geotechnical services. He reported that his firm does prefer to work with certain subcontractors saying, "We generally work with the same ones." The representative added when working with certain subcontractors, other than their usual preferred subs, the firm runs into problems with "one-man shops or one-woman shops where they're the only person doing stuff." He said getting things done on time can be an issue for one-man shops because "they have just such a low rate [one-man shops] can't hire anybody else to do anything for them." [FHWA#23]
- The non-Hispanic white female representative of a general contracting company stated that her firm has a set of subcontractors that they prefer to work with and have worked with for several years. She reported that vetting new subcontractors requires research and time. [FHWA#43]

Subcontractors' preferences to work with certain prime contractors. Business owners discussed whether they preferred working with certain prime contractors.

Some interviewees mentioned speed and reliability of payment, reputation, and safety record of the prime as reasons to prefer certain prime contractors and avoid others. [e.g., FHWA#4, FHWA#9, FHWA#13, FHWA#15, FHWA#17, FHWA#20, FHWA#33, FHWA#34, FHWA#35, FHWA#38, FHWA#40, FHWA#46a, FHWA#53, FHWA#56] For example:

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm reported that he prefers to work with one prime because that prime, "Is organized, they want the job done, they know how much you're going to charge them, and they're willing to pay what you have told them, and they don't try to cheat you." [FHWA#8]
- The female representative of a CUCP WBE-certified specialty construction firm reported that they prefer certain primes based on "how solid the company is [and] do we have a history with the company." She said, "There's some companies we've been doing business with for over 20 years, and obviously we would keep going with those. But when it's a new company we just want to make sure that it's something that we're going to get paid for." [FHWA#16]

- The non-Hispanic white male owner of an SBE-certified specialty contracting company when asked if there were certain prime contracts with whom he prefers to work, responded, “Yeah, you know who pays fast and who pays good, and who doesn’t pay and who you have to squeeze to get your money. There’s certain ones [We] bid lower to some people and higher to others just because I know them and have trouble collecting money.” [FHWA#32]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported that his firm looks at the history of cooperation with the prime contractor. He stated, “It’s very important for me to work with somebody I can depend upon and that will pay on time, I’ve got to know who the contractor is.” [FHWA#29]

Some interviewees described the “good and bad” associated with working with certain prime contractors. For example:

- When asked what his experience was like working with DBE- certified contractors, the non-Hispanic white male owner of an SBE-certified consulting firm stated, “It just depends on the contractor. There are good contractors and there are bad contractors. Some have integrity. Some are wanting to get away with as little as they can. Some get in trouble and get desperate to cut their costs. It’s a mixed bag.” [FTA#1]
- When asked about her firm’s experiences in doing business and working with other small businesses or minority- or woman-owned businesses, the representative of an MBE-certified transportation services firm commented that she had positive experiences. She stated, “[Our city] is a different kind of city to work in because, even though there’s competition with the other carriers, we all get along really well, and there’s plenty business to go around. So, we all utilize each other equally.” [FTA#12]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm stated that the volume of paperwork related to compliance is one of the biggest challenges when working with primes. The owner added that dealing with third-party compliance companies is also a challenge. She explained, “To get on the same page with [the third-party compliance company] and communicate the requirements to our subcontractors (if we have subs) and get them to comply is a challenge.” [FHWA#3]
- When asked if her firm prefers to work with certain prime contractors, she added that “yes” there are certain prime contractors with whom they “by far” prefer to work. She noted that their preference largely depends on how well the prime understands the agency with whom they are working. [FHWA#3]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm when asked about having a preference working with certain primes responded that some companies are good to work for and some “are bad.” The owner said that his experience working with prime contractors is highly variable because “we’re at the bottom of the loot pile as far as the pecking ladder goes, we’re a third-tier sub. So, some days it’s okay; some days it’s not so okay. There are companies that we do work with that are really good and there’s some that aren’t.” [FHWA#10]
- The Black American male owner of a specialty contracting business when asked about his experiences working for primes stated that there are “general [contractors] that aren’t

really very hands-on.” He said that he has experienced general contractors that “spend all their time in the office and don’t really spend much time on on-site. They’re difficult to work with because they expect the subs to build everything, but they’re the builder.” [FHWA#27]

- The Black American male owner of a DBE- and SBE-certified construction-related firm reported, “I’ve worked with pretty much all of [the prime contractors] I prefer not to work with [one particular company].” He commented, “There [are] a lot of old-school people [at that company and] if there is a disagreement, they deal with it the old-school way and we’re not kind of used to that.” He added, “I’m more of a professional-type person.” He remarked that he likes to work with certain primes who, “Are all real professional.” [FHWA#19]

A few subcontractors expressed no preferences when choosing prime contractors. For example:

- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that she has no preference to work with certain primes. She said, “I am just trying to work with any of them.” [FHWA#48]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm responded, “No, I don’t have any preferences. I work with everybody who pays me. We do not care. If their company is big and pay, we work with them.” [FHWA#54]

Subcontractors’ methods for obtaining work from prime contractors. Interviewees who worked as subcontractors had varying methods of marketing to prime contractors.

Several interviewees said that they get much of their work through prior relationships or exposure to prime contractors via the internet, email or referrals. [e.g., FHWA#42, FHWA#44, FHWA#45a, FHWA#55, FHWA#58] For example:

- When asked how the firm markets to prime contractors the non-Hispanic white male owner of an SBE-certified consulting firm stated, “Well, I haven’t been doing a very good job. I’ve been contacting people I know, there’s some sort of organization out of Eureka that does a smaller disadvantaged business assistance program. PTAC, I think it’s called. And I got some information from them which gave me kind of a list of good companies to call to introduce myself to. But they’re really set up for construction companies. They’re not really set up for people like me so they were only limited use.” [FTA#1]
- When asked how the firm obtains work from primes the Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm stated, “Sometimes, the primes come to me. It’s fairly rare. I have to do a lot of dinners and lunches to make sure I maintain relationships. I’ve had a couple times when they would come to me mainly because I have a relationship with a client that they’re trying to build a relationship with, and so that’s why they will use me on the resume. We’re still very new, so for the first few months, we were just doing advocacy work online.” [FTA#8]
- When asked how his firm obtains subcontracting work from prime contractors, the Black American male owner of a telecommunications company emphasized the importance of

referrals and having a good reputation within the industry. “Most of our business comes from referrals. The [primes] we subcontract for are usually other companies in our industry that are familiar with us and our level of expertise. [Subcontracting work] is not something that we go out and pursue. It usually comes to us.” [FTA#13]

- The Asian American female owner of a civil engineering firm indicated that she primarily learns about subcontracting opportunities through referrals. She stated that the prime contractor or other clients will recommend her firm to conduct the subcontracting work. [FTA#14]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported, “We put out bids. We’re on Google.” She added, “The web has bid boards and I will look and scan what’s coming up. We are also on the lists of general contractors as a woman-owned business and they will send over requests for bids by fax or e-mail.” [FHWA#7]
- The Black American male owner of an MBE-certified trucking firm when asked how he learns about subcontracting opportunities reported that he works through a broker. He reported that primes call the broker, and the broker contacts him. [FHWA#25]
- The non-Hispanic white male owner of a specialty contracting business indicated that he gets work from primes through referrals, emails, and Yelp. [FHWA#31]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm explained that he learns about subcontract opportunities through his professional relationships with various prime contractors, as well as through networking and outreach events. [LAM#1]
- When asked how the firm gets on projects as a subcontractor, the Asian American male manager of an international architectural, planning, and engineering services firm stated “Typically through relationships. Knowing larger firms. Knowing firms who have that special skill that is being sought after. There’s no other mechanism for us.” [LAM#12]
- The Asian American male owner of a structural and civil engineering firm stated that primes who have used his firm in public sector work will and have utilized his firm for private sector work because those primes understand his firm’s capabilities and quality of work. [LAM#27]
- The non-Hispanic white female owner of a DBE-, WBE- and SBE-certified specialty consulting firm stated that primes that have used her firm for public sector work will use her firm for private sector work because they have seen the high quality of work her firm performs. [LAM#29]
- The Hispanic American male owner of a demolition and trucking firm indicated that his firm gets on projects as a subcontractor by word-of-mouth. He elaborated, “Someone will tell me their friend has a job or needs a demo and I’ll just go do it. I don’t really pick who it is.” He indicated that the firm has very few contractors that it does work with so the firm does not market itself. He stated that contractors would reach out to his firm and solicit their services for a project. Usually the same contractors will solicit his firm. [LAM#22]
- The non-Hispanic white male owner of a specialty trucking firm stated that primes that have used his firm on public sector jobs will also solicit his firm for private sector jobs. He

indicated these primes will use his firm because of its reliability and good reputation. He expressed, “In business, when a company refers another company, it’s because you are trusted.” [LAM#24]

- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm explained that most of the firm’s work comes from civil engineering firms with which the owner has an established relationship. Those contacts approach the firm about opportunities. [LAM#2]
- The Hispanic American male owner of a DBE- and SBE-certified professional service firm explained, “Maybe 25 percent of my work comes from primes who contact me directly from other projects I have worked on with them.” However, when asked about networking events, he responded, “In my line of work networking is generally not worth my time. It is so highly specialized that connections do not matter as much as technical skills.” [LAM#3]
- When asked about how his firm markets itself to prime contractors, the executive of an SBE-certified non-Hispanic white male-owned landscape architecture firm responded that the firm markets in general “based on our personal relationships with primes.” [LAM#5]
- When asked how the firm finds out about subcontract opportunities, the non-Hispanic white male owner of an SBE-certified engineering firm explained, “The primes usually call me and ask for a proposal. They know me through my previous work with them.” [LAM#7]
- When asked how the firm gets on projects as a subcontractor, the non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm stated, “In the beginning, I go and talk to people and tell them what expertise we provide. Later on, our name went around and I would get calls from people to be on their team.” [LAM#13]

Some business owners reported that they actively market to prime contractors. Those businesses reported that they sometimes identify prime contractors from bidders’ lists, plan holders’ lists, at pre-bid or pre-proposal conferences, or through outreach events.

- When asked how the firm learns about subcontracting work the Black American female owner of a transportation firm noted, “Research. I’m always reading. I’m a law student so I have a propensity to research and look things up, google things. Sometimes things fall in your lap or people will discern your passion, they’ll see something and they’ll shoot it to you. That’s usually how I get most of the opportunities. I make myself available and transparent.” [FTA#2]
- The non-Hispanic white female owner of DBE-certified engineering firm explained how the firm markets to contractors, “Well, I did a lot of cold calling in the beginning and emailing marketing wise, and just letting them know that, ‘Now I’m on my own and I’ve got my company if you need my services.’ So, the first year, I didn’t get much work and it was all marketing. I started going to an organization called International Transportation Engineers. It’s like going to those luncheons to kind of get my name out there. I did that for a few years. I still go every now and then. My business has grown from word of mouth, doing quality work and referrals from clients.” [FTA#6]
- The non-Hispanic white male owner of an SBE-certified engineering firm explained how he markets to prime contractors, “We know a bunch of prime consultants that we’ve either

had previous experience with, worked on some projects together or we learn about them either through our communication with our peers, or we read about them. We sort of do some research and do marketing to reach out to some of those prime consultants and let them know that we can provide these kinds of expertise on services and that's how we usually get connected with them." [FTA#10]

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said, "We use Bid Clerk. It's not cheap but it's pretty good. It gives me a list of everything that's within those realms. Caltrans has a website but that website's not good. It's slow, you sit there and log on and it just spins and that thing is not good at all, as far as trying to actually get job information. There's [also] the Daily Builder and then there's the Sacramento Builder's Exchange. The owner remarked, "The Builder's Exchange sucks. Bid Clerk is what I found to be the best." [FHWA#10]
- When asked how his firm learns about subcontract opportunities, the Black American male owner of a trucking firm explained "Once you find out who the contractor is, you give them a call and then they'll tell you who they have designated as their broker. The broker [is] the one that's going to find the trucks to do the job; he's the one that's going to be paying you. So, you'll be a subcontractor under him." He also stated the firm markets itself by "word-of-mouth" and by meeting people. He added that he has "marketing products such as t-shirts with [company] logo." [LAM#4]
- The Asian American male manager of an international architectural, planning, and engineering services firm observed, "We do target the partners that we want to have." He elaborated, "[We do] a combination of things – being connected to the industry, knowing who all the players are, talking to the owners, following where the agency is going, where the board of those agencies are focusing in on. So, really doing a lot of homework." [LAM#12]
- The representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm explained, "We reach out to [prime contractors], especially if there is a [goal] requirement. We flash our resume to [the prospective prime contractor] and let them know we can help them reach their [DBE, MBE or SBE] goal." He added, "[The] owner has been in the industry a very long time and has connections with the bigger GCs [General Contractors] and will hear about projects and opportunities and he'll reach out to them. Sometimes [General Contractors] have meetings that I'll attend." [LAM#8]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm said he studies projects in the early phases (for example, the Environmental Impact Review stage), to get an idea about future opportunities for business. [LAM#1]
- The non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm observed, "Yes. When the public sector project comes out, I try to find who the company is that has the best chance to win [the project]. If I know them, I call or email them. If I don't know them, I try to reach them. My goal is to be on all the teams that are short-listed. It's a lengthy process. It requires a lot of relationship talking and negotiating. Private [sector] is different. In the private [sector] they say, 'Give me a price.' They care about the bottom line." [LAM#13]

- The Asian American male owner of a structural and civil engineering firm stated that his firm proactively navigates through different websites to find out which primes are bidding on a project. He will then contact and introduce his firm to the prime he wants to work for, and talk about the previous work his firm has done for other prime contractors. This approach “has produced positive results for the most part.” [LAM#27]
- The non-Hispanic white female owner of a DBE-, WBE- and SBE-certified specialty consulting firm explained that she would contact a prime via email when the prime is interested in a specific project. She stated that is about as far as she goes when it comes to marketing her firm. The interviewee stated that her firm identifies potential primes through sign-in sheets for specific project events or meetings, which she receives via email. She added that most prime companies know who she is due to the nature of her firm’s work. [LAM#29]

Some subcontractors reported that they are often contacted directly by primes because of their specialization, their DBE certification, or because of they are known in the industry.

[LAM#1, LAM#25, LAM#27, LAM#29] For example:

- The Asian American male owner of a structural and civil engineering firm stated that his firm mainly gets on projects as a subcontractor through bids or having primes reach out to his firm and subcontract him for their projects. [LAM#27]
- The Asian American male owner of an MBE- and SBE-certified engineering firm stated that his firm markets itself primarily through word of mouth. He expressed, “I’m the only one of a few folks that can actually do tunneling very well and my clients know it and they basically seek me out rather than me having to seek them out so that’s really by word of mouth. There really is no marketing needed. Companies look for me.” He indicated that primes will usually contact him to bring his firm on board as a subcontractor. He then vets the prime company and based on his research, decides whether or not to come on board with the prime. [LAM#25]
- When asked how her firm finds out about and gets on projects as a subcontractor, the non-Hispanic white female owner of a DBE-, WBE- and SBE-certified specialty consulting firm explained, “This is what happens: if the RFP needs our kind of services, the [primes] start scrambling because they know they can’t do it. So, what they do is they look on BAVN or Planet Bids. They look on there for companies like mine. So, what happens, because of agencies having a quota and Metro’s really been doing good in the last few years. But about having, like a certain number of DBEs, and all that, then the clients find the DBEs; and come to us. And that’s why I don’t market because they come to me.” The interviewee elaborated, “There’s three ways [to find out about jobs]. First you go to the initial meeting. Second the prime reaches out to you because of the DBE goal. And the third one is you find out about [the project] and you contact the primes for that. My success rate is about 50 percent [using these methods], which is pretty high.” [LAM#29]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm explained that the firm has a strong name and brand recognition, which helps the firm win work with prime contractors. He stated, “I can walk into an outreach event and 90 percent of the time, people know who I am.” He explained

that the firm is finally in a position where it can effectively convey its marketing messages through its branding. He noted that the firm has an advantage in the market because it employs a business development professional solely dedicated to marketing and branding. He clarified, “Most small contracting firms do not have the overhead budget to hire a dedicated business development employee.” [LAM#1]

A number of business owners reported that outreach by primes or to other firms is helpful.
[e.g., FHWA#6]

- The female Subcontinent Asian American representative of a specialty consulting firm reported that outreach to local DBEs to know their availability and travel locations is advantageous to small business and primes. The representative said, “Reaching out gets them on the radar lets them know [our] credentials [and] builds personal relationships.” [FHWA-PF#12]

One business owner reported that outreach events lack pertinent information for small firms.

- The female owner of a DBE-certified specialty transportation firm reported that she has attended “meet the prime” meetings; however, she expressed that the meetings lack pertinent information. She commented, “Help me understand how it is possible anyone can figure out the sub-contract business on their own without getting proper information on how the process works.” [FHWA-WT#26]

Some business owners reported receiving solicitations for bids from prime contractors and some solicitations are challenging. [e.g., FHWA#20]

- The female owner of a certified specialty service firm reported, “I was the only certified [business owner] in the room for the bidder’s conference [and] everybody wanted me on their team. I ended up on one team and we won the award.” The owner added, “They had one of their internal people get certified just as it was being awarded and substituted us. I went to the agency [but] they didn’t do anything.” [FHWA-PF#9]

Some subcontractors reported they seek primes they consider fair and good managers. Otherwise, they face challenges. For example:

- The non-Hispanic white male owner of an architecture-related consulting firm when asked if his firm prefers working with certain primes reported, “The better [primes] don’t necessarily pay better, but they’re fair. And what we look for is a really good relationship with a client, an interesting project and experience, where we find that the less experienced the architect is or the prime is, the more work we have to do because they just are not familiar [with the work].” [FHWA#30]
- The Hispanic American male owner of a specialty contracting business reported that “getting stuck with poor management” as one of the primary challenges in working with certain primes. He said, “There’s a lot of times, depending on who the staff is and who the personnel [are] that you [deal] with, it could be a good prime contractor as a whole. But if the staff that gets assigned to a particular project isn’t necessarily up to par, it can make it extremely challenging.” [FHWA#9]

One business owner noted that simply obtaining invitations to pre-bid conferences has been a challenge:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm said that, for Caltrans projects, not receiving invitations to pre-bid conferences is a challenge for subcontractors. [FHWA#3]

A few businesses reported challenges obtaining responses from prime contractors. [e.g., FHWA#14]

- The female president of a specialty service firm reported facing challenges in securing opportunities. She commented, “We sign up for every project list and send a quote to everyone on every project. Not one has called us back.” [FHWA-WT#31]

Some faced challenges as small or minority- or woman-owned businesses working with prime contractors. For example:

- The non-Hispanic white female owner of an SBE-certified specialty contracting business when asked about challenges for woman-owned businesses reported that one of her competitors is not licensed; but they still get jobs because they are friends with primes, “or they buy them a 12-pack of beer or they go out to the bar after work.” She said, “It’s not based on what your ability is as a woman to go out and do the job, which really angers me because I’m licensed and I’ve worked hard to be where we are today.” [FHWA#24]
- The Black American male owner of a specialty contracting business when asked about his experiences working as a subcontractor said, “As long as the general [contractor] that I’m working for is a good general, then I don’t have a problem with [working as a subcontractor with them]. I like to work with generals that know what they’re doing because then when I show up to the project, it’s usually ready to go and there’s a plan in place.” He said with residential work, clients “have an idea of what they want, but they have no idea how to get there. So, I have to fill in the blanks there.” The owner added, “I haven’t really had any setbacks, I think, because of being a minority. If I have, I’m not aware of it.” [FHWA#27]
- When asked if she has encountered challenges because her firm is woman-owned, the non-Hispanic white female owner of a WBE-, SBE and DBE-certified specialty construction firm stated, “I think generally just how we’re perceived [is a challenge]. We have to be nice, smile, which I don’t get.” [FHWA#22]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company stated, “My biggest challenge [when working as a subcontractor] is just getting paid on a timely basis.” He added that this challenge has been improving recently noting that some companies are paying for work on credit cards. “You turn in an invoice and they run it on the credit card and you’re paid immediately.” [FHWA#35]
- The Black American female owner of a construction-related business said that her lack of experience as a business owner and her minority status presents challenges to working as a subcontractor. She specifically talked about instances where she felt that her “youthful appearance” was a barrier because the older, more experienced, people in the business

thought that she could not possibly know what she is doing. She reported that she has had to work hard to prove her competency. [FHWA#2]

- When asked if there are challenges for minority- or woman-owned small businesses working as subcontractors, the Hispanic American male owner of a DBE- and MBE-certified specialty contracting company responded that relationships are a challenge for his firm. He said, “Relationships are born. In our part of the business, you’re trying to find out who's got what, who can sell it out at a better price, who you could contact at a business that you don't have a relationship with. A lot of times, the prime contractors don't want to bother with you because they don't know you. So, if you came from a business with somebody new coming in, you can be the greatest man on the planet, probably won't get to work without knowing somebody on the other side.” [FHWA#46a]

E. Experience Doing Business with Public Agencies (in general and California state agencies, specifically)

In addition to barriers such as access to capital, bonding, and insurance that may limit firms’ ability to work with public agencies, interviewees discussed other issues related to working for public agencies. Topics included:

- General experiences working with public agencies or Caltrans;
- Challenges learning about prime and subcontract opportunities in the public sector or with Caltrans;
- Learning about prime contract opportunities;
- Learning about subcontract opportunities;
- Opportunities to market the firm;
- Bonding requirements and obtaining bonds;
- Insurance requirements and obtaining insurance;
- Prequalification requirements;
- Licensing and permits;
- Size of contracts;
- Any unnecessarily restrictive contract specifications;
- Prevailing wage, project labor agreements, or any requirements to use union workers;
- Bidding processes;
- Non-price factors public agencies or others use to make contract awards;
- Timely payment by the agency or prime contractor; and
- Any additional disadvantages or barriers associated with being a minority- or woman-owned small business.

General experiences working with public agencies or Caltrans. Interviewees spoke about their experiences with public agencies in general and with Caltrans in particular.

Some business owners discussed their general experiences with public agencies. Some reported that the experiences are generally positive. [e.g., FHWA#9, FHWA#14, FHWA#16, FHWA#34, FHWA#36, FHWA#39b, FHWA#41, FHWA#51, FHWA#54, FHWA#56, FHWA#57, FHWA#60, LAM#28] For example:

- When asked what experience his firm has with working with public agencies or Caltrans, the non-Hispanic white male owner of an SBE-certified consulting firm explained, “With Caltrans, in general, it was good. There’s bureaucracy you have to deal with but that’s understandable. And then you run into some folks that might not be as friendly as you might like. Who knows what they’re going through? But overall, it was very good. I would much rather work for Caltrans than just about any other public agency except some counties. That’s because we have a good personal relationship, they know me, I know them. So, that’s a fundamentally different dynamic than working with the latest RE to come along in your project, or just somebody at Caltrans who you may not even have met. Overall, Caltrans was a better public agency to work with than most.” [FTA#1]
- When asked how the firm learns about work as a prime contractor the Black American female owner of a transportation firm noted, “We started with this one regional center and that's our focus is to stay with our regional center until we come out publicly, which that would probably be if it ever came to the point that it was looking bad at the regional center. So far so good, we have a good relationship with the community. Now, if they make changes to where they have to do their protocol different like they start bidding on stuff or requesting proposals like I know the other places do, then that would be detrimental for us.” [FTA#5]
- When asked the firm’s experience working for public agencies or Caltrans work, the non-Hispanic white female owner of a DBE-certified engineering firm noted, “I like it because I know more of what to expect, because I’ve done a lot of Caltrans jobs. I pretty much use Caltrans standards on all my projects. I like it because they set a certain standard and that's the best way to do it also, for liability reasons for my company. I try to stick to Caltrans standards because it just makes sense. I believe that their standards are on the conservative end and it helps me if I stick to that. So, for me to work for Caltrans is very easy because I'm already using their standards because I feel like that's the best standard to use in California.” [FTA#6]
- The representative of an MBE-certified transportation services firm stated that her experience in working with public agencies, such as Caltrans, was similar to the work that her company performs in the private sector. “Similar with billings, similar with routing communication, similar with expectations.” [FTA#12]
- When asked about her firm’s experience working with public agencies, the Asian American female owner of a civil engineering firm stated that it could be difficult. She said, “It's a little bit hard. They have a [specific] system or a protocol [for] what needs to be done, and you just have to comply with those even if you feel that it’s not necessary.” [FTA#14]
- When asked about his firm’s experience doing business with public agencies, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that pursuing work with public agencies could be complicated and requires significant attention to detail. He said, “Federal contracts [are] fairly complicated. Same with state and county.

Any time you're doing government contracting work, there's a lot of strings attached. There's a lot of details that you really have to understand to be successful. That's a challenge for sure. But in my experience, the information is available and you have to take the time to do a lot of reading and research and really understand what you're getting into." [FTA#15]

- When asked about his experiences working with public agencies in general, the non-Hispanic white male representative of a general contracting firm reported, "It's generally positive. I think on a project-by-project basis the majority of our people have really positive working relationships." He added, however, that "ever since the financial downturn that happened back in 2008, I think there's definitely been more claims because I think the dollars are tighter. So, I think from that perspective, it's a bit more litigious than it used to be in the past." [FHWA#26]
- The Black American male representative of a general contracting firm noted, "There are some agencies that are easier to work with than others." [FHWA#26a]
- The Black American female owner of a new construction-related business reported, "I haven't really started working yet. I am just getting my certifications now with my WBE. So, I haven't really done any business with Caltrans." [FHWA#2]
- When asked if there are any disadvantages and barriers to doing business in the public sector, the non-Hispanic white male representative of a DBE-certified construction-related firm stated, "There are some little barriers all over the place. I think that's natural, one of them is the communication and being able to operate with language barriers in our industry with the different non or limited English speaking employees. English language and communication with certain people in the public sector are difficult and seems pronounced in the public sector, especially with the engineers and laborers. So, there's a little frustration with that over the years." [FHWA#53]
- The non-Hispanic white male owner of an engineering firm reported that his firm has developed good relationships with "public agency team members." He also stated that sustaining these relationships could be difficult because public employees seem to move in and out of positions. Therefore, he said, "The person you might know that might get you the job one year is gone on the next project." He went on to say, "You can be invested in a general manager as one of your friends, they will make sure that if there is anything, they can throw your way, you're going to get the job." [FHWA#42]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm stated, "I've had no [challenging] issues with [public agencies] whatsoever. Some of them have you go online and enter your certified payroll on their specific, you know, programs. So, each one has their own different program and that can be a little pain, but I've had no issues." [FHWA#13]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, "It's only as easy as the project manager you get. We do not have any contracts at all with Caltrans. We have one or two possible contracts with primes that have contracts with Caltrans." [FHWA#45a]

- The non-Hispanic white male representative of an engineering firm said, “One of the reasons why [working with public agencies is] a positive experience is communication. That’s a huge, huge, huge issue being able to connect with the right folks in the right departments, because some of these agencies can be very, very large.” [FHWA#33]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company stated that Caltrans is “very easy to work with.” He added, however, that “LAX is a pain because they have their own special rules that they have. It’s just hard to get through.” The interviewee added, “It is great to work with Caltrans to be honest. If you are a sub to [a prime in the] private [sector] you do not know when you are going to get paid [or] who is holding the money up. At least with the public [sector] you know when the money comes.” He noted, “If it comes you are happy and if it’s not then you start making phone calls. Then it will come a week later. I know it is coming.” [FHWA#46a]
- The non-Hispanic white male owner of a trucking firm explained that his trucking firm had worked with the Los Angeles water district in the past. His trucks delivered drinking water to Northridge area residents who did not have any water after the big earthquake in the early 1990s. The interviewee offered his general opinion about attempting to get work with public agencies in Los Angeles, responding, “The problem with trying to obtain work in this type of business in the Los Angeles area is that districts and the state governments don’t have a lot of calls for trucking companies. It is a service that’s more private sector-based.” He concluded by noting, “It’s been so long since I’ve submitted a bid to [local transit agencies], county, or state.” [LAM#23]
- When asked to describe the firm’s experiences getting work with public agencies in the California, the executive of a SBE-certified non-Hispanic white male-owned landscape architecture firm stated, “I’m thinking of certain [public] projects that we have had where there’s been turnover in the agency by either general managers, department heads, or people who are actually working on the project and they’re rotated out or they leave the agency, and so there can be problems with continuity and consistency or you’ve done work and then the parameters change, because there’s a new general manager, and they don’t agree with the previous general manager. So, it has happened where we’ve had to change construction documents, so things have gotten stretched out from being a year or two in production to being four years in production. And there’s a loss of public confidence from that, where things aren’t being done on time, and there’s a loss of money when we need to do these changes - because we’re not always reimbursed.” [LAM#5]
- When asked to describe his experience performing work with public agencies in the Los Angeles area, the non-Hispanic white male owner of a janitorial services firm explained that he has worked with Amtrak and Culver City. He stated the nature of the projects was janitorial and he worked directly with the agencies. He stated the bid process and receiving payment was “easy, it was easier because they’re always on time.” The project lasted a total of 30 days. [LAM#9]
- The Asian American male representative of a minority professionals society explained, “Overall, the members are not very successful [at getting work with public agencies in Los Angeles], especially the older firms that have been in business for more than 20 or 30 years. They are not used to the Design-Build model. They think that DBE opportunities are limited because big firms tend to have preferred teams for the Design-Build projects. [The

older firms] are used to the old way. Many are engineers who do their own design work and do not understand the process of separating goals between the design and construction side.” [LAM#11]

- The Black American male co-owner of a DBE-, MBE-, and SBE-certified architecture firm replied, “Challenging. You can’t be in all places at one time. There’s a hustle to do business development, to find what teams to get on and try to stay in communication with those people. I’ve only primed with LAX for \$5M and the school district for a \$2M project. Those are contracts you can take to the bank. If a client is serious, they need to do the business right away, not on a task order basis. LAX makes it easier for SBE’s to win contracts. They unbundle the work. Some agencies don’t have the people resources to do that.” [LAM#15]
- The Asian American male manager of an international architectural, planning, and engineering services firm stated, “Absolutely, [we work in the public sector]. Here in the Los Angeles office, we predominately work with public agencies, probably about 80/20 on the public side. We do work for cities, counties, the state, federal government.” When asked to describe the firm’s experiences getting work with public agencies in the Los Angeles area, the noted, “We’ve been doing work for Metro for 35 years. We’ve been doing work for all of the cities in Southern California, in various forms. [We’ve been doing work for] Orange, Los Angeles, San Bernardino, Riverside Counties. Basically, the focus of the firm is so broad we can actually do a lot of work for these various agencies. It has been successful for us. We have had some challenges, increasingly in the years that are coming. Specifically, for this program, the percentage of small business and disadvantaged [business] is growing and growing [for contracts]. And what that’s doing, is it’s actually making it very difficult for a medium size company, like ours, to find a role on a team.” [LAM#12]
- The non-Hispanic white female owner of a WBE- and SBE-certified supplier firm explained that her firm fills supply orders for water-treatment plants, water lines, and other water supply equipment for the Los Angeles Department of Water and Power. She noted that her firm does not bid on these projects, but is the preferred vendor. She described the way her firm does business with LA DWP, stating, “It’s actually quite simple. A lot of the time, we get the order from the engineers or the guys out in the field, they call it in, they request the material. Sometimes, we do an estimate, sometimes it’s not necessary. Sometimes a P.O. is issued. It’s just very fast.” [LAM#30]
- The non-Hispanic white male owner of a specialty trucking firm indicated his firm has never bid on public sector work as a prime or a sub. He explained that because his firm had a prior relationship with certain primes, the primes would solicit the firm’s services as subcontractor on public sector contracts. He stated his firm has always been paid in a timely manner when the firm has worked as a subcontractor on Metro projects. [LAM#24]

Some business owners discussed challenges they face in working with Caltrans or with other public agencies. For example:

- When asked what type of experience the firm has had working with public agencies or Caltrans in general the non-Hispanic white female representative of an engineering firm said, “Sometimes it’s difficult to get through to bureaucracies, the loops and the hurdles, but I don’t have an issue with it. I worked for public agencies for 14 years before this job.

So, I feel like I have a really good in on how to navigate the process. That's one of the pros of having me on the team here." [FTA#4]

- The non-Hispanic white male owner of an SBE-certified engineering firm explained the firm's experience working with public agencies, "We recently sent a proposal [for a project]. We are still waiting to hear back but we have not been successful at all in terms of the amounts, the capacity, and the experience that we have. We should be able to get much more involved with all these public works projects but we have not been successful. Many of the SOQs that we have submitted have not really taken us anywhere in terms of getting us projects from public works agencies." [FTA#10]
- When asked about her firm's experience working with Caltrans, the Asian American female owner of a civil engineering firm indicated that her company had only interacted with Caltrans in one instance, in order to obtain a permit. She expressed her perplexity that the process had taken a long time. "I don't know why it takes a long time to go through Caltrans. I think [it was] three months or six months before we could get the permit." [FTA#14]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that the Caltrans website is limited since it does not allow a contractor to completely describe and update their services, which has the potential to limit their opportunities. The owner reported that it is critical for a DBE to identify their scope of services as "the old idea of casting out a blanket and see what comes in" is too general. The owner also noted that not being able to update their specific scope of services on the Caltrans website as their services change is a challenge. [FHWA#3]
- The Black American male owner of a DBE- and SBE-certified contracting firm stated that his worst case caused him damage. He indicated that he had an agency project and said, "We were terminated wrongfully [and] asked to do things that did not pertain to the contract of the job and because we would not perform, they [cut] us off. And when they did that, they caused damage." The owner indicated that experiences with agencies do differ and stated, "There is a difference with different agencies." [FHWA#61]
- The non-Hispanic white female representative of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated that "contracting is really difficult, especially the excel spreadsheets that you have to do for the pricing for the rates because you have to break down pretty much every penny that you've spent." Working for somebody like [local city], it's been a positive experience, because they want to take us on as a prime, and we have worked for them before." She also noted that the contracting process takes a longer time to award because of the contract approval process. She stated, "Working with [local city] is still easier than working for Caltrans." [FHWA#45b]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm, regarding her experience working with public agencies, stated, "It's a bureaucracy. It is unremitting. They forget we are small." [FHWA#38]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported that her firm has struggled with agency bureaucracy when performing work. [FHWA#22]

- The Black American male representative of a minority trade organization said, “Well, it was always tough. Caltrans is a very, very, very racist organization. They believe that only white folk should have the upper echelon of the contracts, and that is what they do all the time. They keep the same contractors going, they approve the same contracts, and it doesn’t matter what their [DBE subcontracting] goals [are], and what the criteria is [set] for the goals [because] the goals are never met, and there’s no deliberation about [the failure to meet DBE goals] stopping the contract [from being awarded. The same representative added, “Caltrans has issues with black folk. I cannot tell you about the Asian or the women, or the minority. As related to black folk with Caltrans; Caltrans could do a lot whole better.” [FHWA#52]
- The non-Hispanic white male owner of a specialty construction firm said that “public sector wastes and time and energy by redoing the whole bid process.” He gave an example of a project that was re-bid because only two companies submitted a bid the first time around. He said that the re-bid took several months, and “after the re-bid, the job was more expensive this time than last time and it’s the same job.” [FHWA#18]
- When asked to describe his overall experience in working with public agencies and Caltrans, the non-Hispanic white male representative of an SBE-certified engineering firm stated that his firm has not worked directly for Caltrans in the past — only for city projects with Caltrans oversight. He reported frustration with the “myriad of regulations and requirements” involved in working with public agencies. [FHWA#28]

Challenges learning about prime and subcontract opportunities in the public sector or with Caltrans. Some interviewees reported that learning about contract opportunities in the public sector can be a challenge. For example:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that the most substantial challenge faced by a small business pursuing work as a prime contractor is the expanse of government rules and regulations that he has to research, interpret, and implement without the benefit of dedicated staff to assist with those administrative and managerial tasks. He said, “When it’s just you, or maybe you and a few other people, you have to do it all. You got to figure it all out and make it work or you have to pay a lot of money to a third-party company who can provide that [service] for you, but that’s very expensive.” [FTA#15]
- When asked about the firms experience learning about work opportunities with public agencies and Caltrans the Black American female owner of a DVBE-certified transportation firm stated, “When I first got into my business, I went to all these different business meetings and then I was getting my certification. I was trying to meet different prime contractors but they are just going through the motions, they already have selected the people that they want to deal with and talk with, they will say they will call you but they do not really call you. It just was not a pleasant experience for me. I did not feel really comfortable with it, but I did it. I did that for a while to figure out a way to start running my business and making money and the only way I could do that was going to the private sector at that moment.” [FTA#18]

- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that her experiences working with public agencies are not very good because the public agencies do not make an effort to include small businesses in other disciplines when creating contracts. She said, “So lately, I’ve been saying to them, ‘Why is it that no one is thinking outside the box? Why do you certify all of these different businesses, but you never have any work for them in that discipline?’ I don’t get it.” The owner noted that, if Caltrans was going to provide DBE certification for a discipline, they should also ensure there are opportunities for that discipline in their contracts. “Break the package down so that everyone could have an opportunity to work on these contracts.” [FHWA#48]
- The non-Hispanic white male representative of a general contracting company stated that some agencies are tougher than other agencies. He noted that some public agencies strive to treat businesses in a contractually strict but fair way, but said that other public agencies “will use whatever tools they can to not pay what is owed firms.” [FHWA#41]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company stated, “I don’t have any problem with any of them, other than maybe Caltrans might be a little hard to work with or deal with, a real stickler on paperwork.” [FHWA#32]
- The Hispanic American male owner of a DBE- and MBE-certified supply firm commented on challenges he has experienced in working with Caltrans. He remarked, “We’re global with this product, but we can’t sell Caltrans and we’re a local supplier, something is wrong with this.” The owner when asked if he had luck selling to other agencies in California reported that he sells to railroads in the United States and Canada, copper mines and medical manufacturers, but faces barriers selling to Caltrans. [FHWA-PF#1]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company stated, “A lot of times what you have [in public agencies] are people that have worked their way up through the bureaucracy and, because they’re ‘yes-people,’ continually they move up through the ladder. I cannot tell you how many people that I have worked with in public agencies that when you get there, they have no clue what they are doing and they cannot make a decision. And yet, they’re the supervisor.” [FHWA#29]
- The male representative of a public sector agency commented, “public sector work is not for everybody. If you look at the requirements RFP for professional services construction books, they can be really restrictive but when it comes to Caltrans it might just be restrictive things.” [FHWA-PF#4]
- The female president of an engineering firm posed the question, “Is corruption the same as discrimination?” She added, “I find that with SANDBAG and Caltrans there is a pay-to-play mentality or just obvious crony capitalism to the point that I find it worthless to go for the projects.” The representative remarked, “the big boys are willing to provide me with “opportunities” to do 80 percent of the difficult work for next to nothing and assume all of the liability.” [FHWA-WT#12]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said, “Dealing with Caltrans sucks.” He said his issue with Caltrans has “a lot to do with the certification process.” He went on to state he has not done business with Caltrans in years and maybe working with the agency has improved. [FHWA#47]

- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported that he interacted with Caltrans while working for various cities and: “In working with the public agencies, it just seemed like there was too many people in charge. As far as the management of it went, I didn’t think it was [run] the best way.” He added that “Caltrans was the worst because they had so many people but, yet, if you called one to question, they would have to call somebody else and it could be days before you’d find out a simple answer.” [FHWA#17]
- The Subcontinent Asian American male owner of an architecture and design firm reported he experiences challenges with pursuing public sector work because public agencies want bidders that have prior experience with that particular agency. The owner offered an experience that he has had in pursuing public sector work. He said that he once bid on a project for the City of Thousand Oaks. The bid process was very straightforward, and the requirements were easy to read. He said that the only part his firm thought was unfair is that the City wanted bidders to have prior experience working with them. [FHWA#6]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm said working with “Caltrans in particular is always interesting because we have to learn the ways of Caltrans.” He said that Caltrans is “kind of finicky and [it] always depends on who you talk to.” He said they get different answers depending on whom they ask. “I’ve gone to the seminars with the [Caltrans] audit people and [they said the answer to any question] literally does depend who you get auditing your job. [It is the auditor’s] discretion.” The representative reported, “Other public agencies don’t usually have kind of the paperwork trail that Caltrans does.” [FHWA#23]

Several interviewees spoke about how working with Caltrans is similar to working with other public agencies. For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that experiences with public agencies are generally similar to Caltrans; they do not work much with small agencies. The owner reported that executing a project with Caltrans is not a challenge because Caltrans rules (as compared to other agencies) are “actually quite simpler.” However, it is difficult for a subcontractor to understand if they are meeting the requirements, especially if they are working with a prime that does not communicate the requirements of the project well. [FHWA#3]

Several interviewees spoke about how working with Caltrans is different and better than working with other public agencies. For example:

- The Black American male owner of a DBE- and SBE-certified construction-related firm said, “I prefer [to work] all Caltrans because you are protected a lot more there.” He reported that there have been issues where [the primes will try to take advantage of subcontractors]. He added, “If Caltrans is there, then most likely they will not do that. They will not treat you in any kind of way; talk to you in any kind of way out there. You have Caltrans to support you if something goes wrong on the job or something is not right. So, I prefer to work Caltrans jobs.” The owner added that when he is working on a Caltrans project, “You always know you are going to get paid.” He added, “I just feel a lot more

comfortable working under the Caltrans umbrella [because] you just know you are safe. You know, if you have Caltrans [that] they are going to look out for you.” [FHWA#19]

- The non-Hispanic white male owner of an SBE-certified consulting company stated that his firm has done business with several different public agencies usually performing as a subcontractor. He said that he has also performed as a prime with a local municipality. He stated that working with each agency is different. [FHWA#44]

A few interviewees reported having limited or no experience with the public sector or Caltrans. [e.g., FHWA#21, FHWA#40, FHWA#43, FHWA#49] For example:

- The Hispanic American male owner of a specialty construction firm reported that his firm has no direct experience with public agencies other than the City of Seal Beach. He recalled that his firm bid the project as a prime; and, although did not present the lowest bid, they were awarded the project. He remarked that they bid to perform all of the work, whereas other bidders bid in pieces and planned to use subcontractors. The owner described the only experience that he has had indirectly with Caltrans, “We were doing an upgrade at the property owner’s expense, but it impacted a highway, so Caltrans came out and told us what we could do.” [FHWA#4]
- The Hispanic American female owner of an MBE-certified specialty services firm stated that she has never had a negative experience with Caltrans. She said, “For the most part we deal with them on the freeway only. We do not ever have to deal with them as far as paperwork goes, or the business side of it. Caltrans deals with the [prime] contractor. We only deal with [Caltrans] as far as the safety issues go.” [FHWA#5]

Six business owners described their experiences working with or attempting to get work with Metro specifically. [LAM#6, LAM#8, LAM#9, LAM#13, LAM#24, WTLAM#10] For example:

- The non-Hispanic white male owner of a specialty trucking firm explained that his firm is a subcontractor on a Metro project where the firm’s role is to deliver environmental cleaning supplies to clean out asbestos and lead in buildings. He went on to say that his firm has had good experiences with Metro projects. However, his firm has always worked directly for the prime that had the Metro contract. His firm has never had a direct contract with or performed any direct work for Metro. [LAM#24]
- The representative of a DBE-certified non-Hispanic white female-owned civil engineering firm responded, “We worked with Metro on a...project as a subcontractor. It was fun and different because we had an opportunity to do field work and be on the job site. Everything with Metro is an open book, very transparent [compared with other projects where site visits may not have been part of the process]. With Metro, everything runs like a well-oiled machine.” [LAM#6]
- The representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm described one a rare instance when the firm bid on a Metro project as a prime contractor, stating, “It was easy. We went through the steps of figuring out when the job was going to happen, the requirements, if we could handle the scope of the work.” He added, “As long as you follow the checklist to see if the project is a good fit, it’s easy.” [LAM#8]

- When asked to describe his experience getting work with public agencies in the Los Angeles area, the non-Hispanic white male owner of a janitorial services firm replied that he put in a proposal with Metro about 12 years ago but had “never been in contact with Metro before.” [LAM#9]
- The female administrator of a DBE-, SBE-certified architecture firm responded, “It’s difficult to break into the Metro family without having prior project experience. Even though our office has been in business for over 15 years and has 30+ years of professional experience, it’s not sufficient without prior ‘relevant project experience’ on all the RFPs I’ve seen.” [WTLAM#10]
- The non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm stated, “I’ve worked with the City of Los Angeles. I’ve worked with Metro. And it’s been pleasant so far. They provided a good service. All of them were highway or bridge construction [projects].” He added the firm bid as a sub on these projects. [LAM#13]

Learning about prime contract opportunities. Interviewees discussed opportunities for firm owners and managers to identify public sector work and other contract opportunities, and to market themselves.

Many business owners and managers identified straightforward ways to learn about public- and private-sector work. [e.g., FHWA#19, FHWA#30, FHWA#39a, FHWA#40, FHWA#42, FHWA#44, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#55, FHWA#58] For example:

- The Black American female owner of a transportation firm explained how the firm learns about work, “If we see a facility that we feel we can service, they have the demographic that we serve. Maybe they do not have access to transportation; we can reach out to them and present what we do, what our specialty is, and discuss if there’s any opportunities to help service and fill that gap. Then there are other times that people hear about our company through word of mouth. They see us on the road or they’ve done business with a company we’ve done business with and they were referred to us. They will work with us in a more long-term situation, that is how the subcontracting arises. There are always opportunities coming up, so how we decide to contract is based on how it’s going to be a benefit to both ourselves and the other company or the other NGO agency that we’re contracting with.” [FTA#2]
- The representative of an MBE-certified transportation services firm stated that her firm does not learn about prime contract opportunities directly from public agencies, more often her company invited by a prime to subcontract on a public agency opportunity. [FTA#12]
- A representative of a WBE-certified engineering firm explained, “It’s always harder for smaller businesses to find work. We feel disadvantaged, we have to travel a lot to look for a big company to work with because we are a small company.” [FTA-AV#35]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated, “You have to be diligent and find [contracting opportunities] yourself.” He added, “Caltrans’ website will only give you what the project is [and] a list of bid items.

There is a bid item for [work his firm performs] [but] they don't even list [the type of work his firm performs]." [FHWA#10]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm reported, "We search public agencies to check what they've got to bid. We watch several bid lines, you know, like Dodge. We bought a Dodge subscription, which was everything, private and public that is out for bid." [FHWA#38]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that he learns about prime and subcontract opportunities through solicitations because of the company's certified status. He also stated that he visits "plan rooms and online plan rooms." He added that in the past he has used a web-based bid notice program to learn about opportunities. [FHWA#47]
- When asked how the company learns about prime opportunities, the Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm said, "We'll hear from Caltrans. Our public agencies will usually send [notices] to us or we have a lead service that we use. But most of our local agencies that we worked with will directly e-mail us." [FHWA#23]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated that, to learn about prime and subcontracting opportunities, she uses "the bid system through the State of California." She said, "I have actually put bids out on some projects, but I haven't gotten any bites yet." She is also "signed up to different cities and they send out a report every other week that shows me what permits have been issued." [FHWA#24]
- The non-Hispanic white male representative of a general contracting firm indicated that they learn about contracting opportunities by monitoring the Caltrans' postings. [FHWA#26]
- The non-Hispanic white male representative of a general contracting company stated that he learns about opportunities through subscription to the "Dodge News." He also said that his firm has good relationships with many agencies because they have performed work for them, and they "want to see us come back so they will let us know when projects are coming up for bid." [FHWA#41]
- The Black American male owner of a DBE- and MBE-certified construction company reported that he learns about bid opportunities from the Blue Book, emails, and calls. [FHWA#60]

Several interviewees commented that they use websites to identify potential work. Some reported dissatisfaction with Caltrans' website. For example:

- When asked how the firm learns about prime contracting opportunities the non-Hispanic white female owner of majority owned DBE-certified engineering firm explained, "When I first started the company, I went through all the cities and counties in California and tried to register for their RFP notification. It is a lot of work. My previous employer helped me out a little bit by giving me some of the links that they use to look for RFPs. So, you go to all these websites for each city and county in California. They have a place where they have

specific notifications. I kind of think, 'Okay, what engineer might be going after this project.' Then I'll email them and say, 'If you're going after this project and there's a DBE percentage, would you like me to be on your team or I'm interested in being on your team.'" [FTA#6]

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm expressed his satisfaction with the process used to learn about prime contract opportunities. He said, "All of [the contract opportunities] are published on a federal website. [Federal agencies are] required by law to publicly announce all contracts above a certain size and all of our contracts meet that requirement. So, we simply have some search engine programs that notify us anytime a new contract becomes available within our industry." [FTA#15]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, "Caltrans has a website [designed to help subcontractors learn about opportunities] but that website's not good." He added, "It's slow, you sit there and log on and it just spins and that thing is not good at all, as far as trying to actually get job information." [FHWA#10]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said that he checks the Caltrans website, "e-bid" [and] any of the city websites to learn about subcontracting opportunities. [FHWA#19]
- The Black American male owner of a DBE- and SBE-certified contracting firm stated, "a lot of times now, I'm really using the internet to my advantage going to the public agency, on their website" to learn about prime and subcontract opportunities. He also mentioned his use of FW Dodge, BidSync, vendor databases, and cold search. [FHWA#61]

Learning about subcontract opportunities. Many companies reported effective ways of learning about potential subcontracting or that prime contractors reach out to them.

Some businesses indicated that they have found effective ways to identify subcontract opportunities. [e.g., FHWA#9, FHWA#22, FHWA#39a, FHWA#46a, FHWA#48, FHWA#52, FHWA#53, FHWA#55, FHWA#56, FHWA#57] For example:

- The Black American male owner of a specialty contracting business stated that he learns about most jobs from referrals. [FHWA#27]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that her firm learns about projects and the requirements through their relationships with general contractors. [FHWA#3]
- The Black American male owner of a DBE- and SBE-certified construction-related firm reported, "[I] do my own due diligence. I check for wherever bids are online. I go to Plan Holders List, and see everyone that's [intending to bid]. I send them a bid or I might contact them [to] let them know I'm interested in the job [and will] send them a bid." [FHWA#19]
- The non-Hispanic white male owner of an SBE-certified specialty contracting business said he uses "iSqFT" to learn about bidding opportunities "because that's what most people are on." He also uses "word of mouth." [FHWA#35]

Some companies reported that prime contractors contact them about opportunities. [e.g., FHWA#54] For example:

- The male owner of a DBE-certified specialty service firm reported that primes contact his firm to be included in their bids; however, he said, “I get a lot of phone calls, a lot of emails [where] you never hear from them again, never.” [FHWA-PF#10]
- The Black American male owner of a DBE- and MBE-certified contracting firm commented that, because he has worked in the industry so long and has a DBE certification, “I’m getting inundated with opportunities. So, I don’t have to go and look for anything; it comes to me. And then I know how to go to the sources and find out what opportunities are there.” [FHWA#15]
- The owner of a WBE-certified transportation firm stated, “Having the WBE-certification in the public utilities sector I do get invitations to bid all the time.” [FHWA#34]

Opportunities to market the firm. Business owners shared a range of experiences about marketing their companies that are effective for their firms. [e.g., FHWA#9, FHWA#50, FHWA#52, FHWA#56] For example:

- The non-Hispanic white male owner of an SBE-certified consulting firm expressed his thoughts on opportunities to market the firm stating, “A lot of the government-funded, small business, disadvantaged business programs that they have, in my area of the state, are more construction-firm oriented and government-supply oriented. So, they have a lot of meet ups, classes around those types of companies but there isn’t really anything that says, ‘Hey, you’re a civil engineer and you want to do this kind of work. Let’s get you hooked up with these larger civil engineering firms so they can get to know who you are, what you have to offer.’” [FTA#1]
- When asked about the firm’s opportunity to market to primes, the Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm stated, “Right now, I’m getting my website to talk more about our projects and doing more. I have posted on social media quite a bit to do our work, but in terms of actual raw marketing, it’s a lot to do with meeting the clients and building relationships. So lately, I’ve been preparing proposals and it’s one of the most costly, time-consuming aspects of work right now. Each proposal, just to print everything, costs probably around \$1,000, and you don’t win it a lot of times, and so that’s a big cost to us.” [FTA#8]
- When asked how they marketed the firm, the Subcontinent Asian American male co-owner of an SBE-, MBE- and WBE-certified engineering firm stated, “We teamed up with the local architectural firms providing the services to them, engineering and surveying. We advertise in the yellow pages, by word of mouth with people that I know, and ads on the radio so that’s how we started the business.” [FTA#9]
- The non-Hispanic white male owner of an SBE-certified engineering firm explained how the firm markets to contractors for work stating, “In the beginning when I was working for other larger firms, because of my work with the public works agencies, I had some relationships with people who were responsible for projects that I had been working on. Some of that additional work that came in when I started my own business was due to my

acquaintance with those individuals in those public works agencies. Then, I also did approach some of the counties and the cities, and discussed with them the kind of experience I've had and some of the projects came through that effort." [FTA#10]

- The representative of an MBE-certified transportation services firm identified a few opportunities that her company participated in to market the firm, including as part of the United Motor coach Association and the American Bus Association. [FTA#12]
- The non-Hispanic white male owner of a specialty construction firm would advertise in the Penny Saver and market to affluent "hill communities" like Pasadena or Bradbury. He would also leave business cards and talk with people in order to "drum up work." [FHWA#37]
- The female owner of a WBE-certified transportation firm, regarding her firm's marketing efforts, said, "I'm in a lot of construction magazines and stuff like that. I advertise occasionally on the radio. I market in a couple magazines." [FHWA#34]
- The non-Hispanic white male representative of a DBE-certified construction-related firm reported that they hire another small business to do their marketing. [#53]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that they take a multi-faceted networking approach to marketing. They subscribe to online sites (BidSync) and receive notifications via fax by prime contractors regarding project goals. [FHWA#3]
- The Black American male owner of a specialty contracting business when asked about opportunities to market the firm said, "It's all word of mouth now. I did a lot of branding and a lot of marketing during the recession and the first couple of years after it. [I am now] reaping the benefits of the hard work that I put in at that time." [FHWA#27]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that anytime someone solicits her to bid, she sends them her Statement of Qualifications (SOQ) and leaves out pricing information at first contact. [FHWA#48]
- The Black American female owner of a construction-related business said that she markets her firm by "just meeting people, networking, that's the best." [FHWA#2]
- The Native American male owner of a DBE-certified construction-related firm said that he distributes his company brochure at networking events. [FHWA#49]
- The non-Hispanic white male owner of an SBE-certified specialty contracting business stated, "My marketing is probably my reputation." He said, "I very much live off my reputation." [FHWA#35]
- The Black American male owner of a DBE- and SBE-certified contracting firm commented that he allows his reputation and ability to low bid as his marketing strategy. He stated, "My industry is basically in this [particular] area and it's possible that the lowest responsible bidder will get the job." Therefore, the opportunity is "more like a focus to know where the market is, get the job, and do the best job you can. From that, you build a reputation and get work from that." [FHWA#61]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that he attends outreach events “to have an opportunity to meet primes.” [FHWA#47]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported, “I’m doing some of the other groups like CMA, so the Construction Management Association as marketing and part of SMPS as a professional marketing group.” He added that to market the business “some other [staff] will do the different stuff like ACEC, ACE, Griff Pug. [We try to] attend as many events as possible. We also do postcards.” [FHWA#23]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that two years ago she searched for her type of work on Google and could not find her company. She said “I [saw] all these competitors that only had about maybe 4 or 5 years [of] experience.” She aggressively sought to change the search results and is listed more highly now. She said, “Web presence is really important.” [FHWA#24]
- The Black American male owner of a DBE- and MBE-certified construction company reported that he uses his relationships to market his firm. [FHWA#60]

Some businesses reported that they rely on social media or the internet for marketing. [e.g., FHWA#39b, FHWA#45a, FHWA#58] For example:

- When asked about opportunities to market the firm, the non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider reported, “Our biggest marketing right now is Yelp. We have over [200] Yelp reviews [that are] five stars.” [FHWA#21]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that “having a great website [and] being on Facebook [is important]. Right now, in 2016, [the internet is] the best way to reach contractors. They’re out in the field and they always have their cell phones on [them].” [FHWA#24]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company stated, “We don’t really do a lot of marketing or contacting people. We do have a website. [People were asking about it] so we made one.” She added, “We get people calling us based on that [website], but those aren’t generally the people that we want to work for.” She remarked, “Doing estimates takes my time, and they are free; but if I get ten people calling because they are shopping around, I would rather have the person that is looking for a survey and is referred by someone we’ve worked for.” [FHWA#20]

Some businesses reported challenges with marketing such as time constraints, a need to increase their marketing, and not marketing at all. [e.g., FHWA#22, FHWA#31, FHWA#33, FHWA#40, FHWA#51] For example:

- When asked if the firm has experienced challenges with marketing the Hispanic American male owner of a parking facility noted, “I’m a one-man operation in the sense that I have to deal with everything myself. So, I know there’s networking events, organizations and stuff like that but I just haven’t had the time to get into that and still focus on trying to manage

my business that I have, it's not lack of interest I just haven't had the time to research the type of ways to promote my business." [FTA#3]

- The non-Hispanic white male owner of an architecture-related consulting firm stated, "We don't do a ton of marketing. [We] need to get more aggressive about that, in terms of marketing and finding projects. We're often so busy with projects we have that we just don't have as much time to do that." [FHWA#30]
- The female representative of a CUCP WBE-certified specialty construction firm when asked if her firm experiences challenges when marketing and seeking opportunities replied, "There are struggles sometimes to getting your name out there." She added that "sometimes it is who you know and what circles you run with [that decide whether you are] able to bid on something." [FHWA#16]

Some businesses reported minimal challenges and no need to increase their marketing. Some described their techniques. [e.g., FHWA#5, FHWA#18, FHWA#28, FHWA#29, FHWA#32, FHWA#36, FHWA#38, FHWA#42, FHWA#46a, FHWA#55] For example:

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm remarked that the firm has been in existence a long time. He has good contacts, good networking practices, and is very proactive at reaching out. [FHWA#8]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated, "I try to do all the marketing myself [for instance with our website]. And we respond to every e-mail we get whether it's [a legitimate request] or not, especially with the mass e-mails when they do the good faith efforts, and we always send back our number we have a guy that his only job is to respond to good faith effort numbers." [FHWA#10]
- The non-Hispanic white male representative of a general contracting company reported that marketing to Caltrans is not necessary because they have already established a relationship with the agency. The representative stated that marketing is very important in the private sector. He noted that he is constantly looking for different types of opportunities to grow his business. He also mentioned that his current marketing efforts focus on building relationships with larger firms interested in the private sector. [FHWA#41]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that he utilizes software to send email blasts, company brochures, industry meetings, and a marketing spreadsheet. Additionally, he said that his firm stays in contact with potential business partners through sending holiday cards. [FHWA#44]

Bonding requirements and obtaining bonds. Some contractors discussed how bonding is challenging for small businesses. [e.g., FHWA-PF#4, FHWA#12, FHWA#15, FHWA#16, FHWA#22, FHWA#38, FHWA#50] For example:

- The non-Hispanic white male owner of an SBE-certified consulting firm explained how bonding requirements is a barrier to his business, "There isn't much opportunity for a small or a disadvantaged business out in [rural areas] to find a job that's biddable. And that's not really a programmatic fault or Caltrans' fault. It's just a consequence of there not

being much infrastructure in this area. Small and disadvantaged business in rural areas are doubly penalized by the fact that there are few jobs that occur in those areas and you've got this bonding requirement that can be very difficult to get set up in with the way things are. You're following along, doing maybe 50, 100, 200,000 worth of work and then boom. Up comes this job that's maybe \$500,000 and you know you can do it. It's not a problem doing it. But getting bonded for that much, it's a problem." [FTA#1]

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction reported that bonding is a challenge for small businesses. He said, "If you don't have assets or a good, solid financially valued business, then you're not going to build a bond. So, it's kind of building blocks." He added, "You just can't [just decide] 'I'm going to be a prime' even a small prime unless you have any money in the bank or lines of credit and you have to have a track record and a history. It's going to be impossible [for a] small business with no real capital or financial resources. [It is] going to be tough to bond anything." The owner commented that his firm has been able to obtain small bonds but said, "If I want to go out and bond a \$1 million project, there's not a chance." [FHWA#10]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that bonding on public agency jobs could be a challenge because of the size of the bonds. He stated, "Bonding companies require companies to have balance sheets and a profit margin. This can be a serious issue for small businesses." [FHWA#47]
- The non-Hispanic white female owner of a construction-related firm said, "The biggest barrier that we have is financial. We are limited on the size of projects, because we have to get bonds, and our overall net worth is pretty low." [FHWA-AV#12]
- The Black American male owner of a specialty contracting business stated, "I've had to deal with it a little bit mainly because when I was starting out, my credit wasn't great. So, it was a little more difficult to get it." [FHWA#27]
- The non-Hispanic white male owner of a professional services firm said that "bonding requirements" are an obstacle to bidding on and winning work. [FHWA-AV#11]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that meeting bonding requirements and obtaining bonds is a challenge as a small business owner. She said, "You have to have credibility, you have to have so much money in the bank [to get a bond], and because I'm a small business, I need that cash to be able to pay for payroll [and] to buy my material. So as a small business, that's [bonding requirements] probably what hurts me." The owner added that prime contractors sometimes work with her firm to help them meet bonding requirements. [FHWA#13]

Many business owners did not face challenges with bonding or said that bonding was not necessary in their industry. [e.g., FTA#6, FHWA#14, FHWA#17, FHWA#18, FHWA#20, FHWA#23, FHWA#24, FHWA#25, FHWA#26, FHWA#28, FHWA#29, FHWA#31, FHWA#32, FHWA#34, FHWA#36, FHWA#39a, FHWA#42, FHWA#45a, FHWA#48, FHWA#51, FHWA#53, FHWA#54, FHWA#55, FHWA#60, FHWA#61] For example:

- The representative of an MBE-certified transportation services firm stated that bonding, insurance, licenses, and prequalification requirements were a part of successfully obtaining

and performing work within the industry that her firm operates, but that the requirements were not unusual or unexpected. “They’re pretty much [the same] across the board. There’s nothing new. It’s all pretty standard.” [FTA#12]

- The non-Hispanic white male representative of an engineering firm reported that bonding is not a barrier for the firm. He said, “No, not for our company. We work for a couple of [clients] that have very, very high requirements for bonding. We don’t have any issues.” [FHWA#33]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that, as a subcontractor, his firm is usually “sheltered” from securing any type of bonding. He also stated that bonding is typically not required for the work his firm performs. [FHWA#44]

Insurance requirements and obtaining insurance. Some interviewees said that the cost of obtaining the levels of insurance required by government agencies could be prohibitive for smaller or new firms. [e.g., FHWA#15, FHWA#17, FHWA#45a, FHWA#48, FHWA#58] For example:

- The owner of a transportation firm stated, “Certain regulations, such as insurance create barriers and businesses become over charged for their insurance.” [FTA-AV#2]
- The owner of a transportation firm explained how limited time frames for insurance renewals has created a barrier for his company. He said, “There is a lack of a usage-based liability insurance. Insurance is only available in one-year increments allowing companies to over charge.” [FTA-AV#4]
- The Hispanic American female owner of an MBE-certified specialty services firm reported that the only challenge she encountered with insurance requirements is when Caltrans started requiring the five-million-dollar umbrella policy, and her firm had to increase coverage. [FHWA#5]
- The Black American female owner of a new construction-related business stated that she understands the insurance requirements for her field and anticipates a high cost associated with insurance. She hopes to have sufficient resources to cover the cost. [FHWA#2]
- The Black American male owner of a specialty contracting business stated that “insurance, general liability [is] harder [to get when] you don’t have great credit, even though you have this successful business and it’s running well.” [FHWA#27]
- Regarding insurance requirements, the female representative of a CUCP WBE- certified specialty construction firm said, “It is very challenging, it’s very taxing, and it’s very expensive.” [FHWA#16]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that insurance requirements are an issue “but often we can get around [them]. If there are higher requirements for a project, we can often get project-specific coverage and then that gets complicated.” He said, “Nine out of 10 times [we are] successful in negotiating the insurance requirements.” [FHWA#30]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said that some prime contractors use insurance requirements to prevent small

subcontractors from working on their projects. Regarding Workers' Compensation insurance, the same business owner reported, "It's expensive it'd be nice if there was a better deal for small companies, especially small start-up companies for workman's comp because we're at a tremendous disadvantage because until you achieve three consecutive years of \$300,000 or more payroll annually, you will not get an EMR [Experience Modification Rate] number." [FHWA#10]

- The non-Hispanic white female owner of an SBE-certified specialty consulting company indicated, "Some of the agencies are very strict on the types of insurance you have to cover. [We had a project where they wanted] us to do this work that is going to cost \$10,000, they wanted us to carry \$5,000,000 liability insurance. I don't need to spend this extra premium on a \$5,000,000 liability insurance just so I can work for [that agency]." [FHWA#20]
- The non-Hispanic white male representative of an SBE-certified engineering firm said, "Insurance is a big deal [because] it's very expensive. It can be an impediment in my mind, to somebody who's starting out." [FHWA#28]

One owner reported challenges with workers' compensation insurance.

- The non-Hispanic white male owner of a specialty construction firm said, "We just went through a period where we had to shell out a lot of money for workman's comp claims." He expressed frustration with the workmen's compensation program saying, "I think there are doctors that are in cahoots with insurance people. I know they made changes where the employer supposedly has an input, but we never had an input in any of this, and so I just got reimbursed for ninety percent of that claim but it took three years." [FHWA#18]

Many interviewees did not experience barriers with insurance. [e.g., FTA#6, FHWA-WT#34, FHWA#14, FHWA#22, FHWA#24, FHWA#25, FHWA#26, FHWA#29, FHWA#31, FHWA#32, FHWA#33, FHWA#36, FHWA#39a, FHWA#42, FHWA#47, FHWA#51, FHWA#55, FHWA#57] For example:

- The non-Hispanic white male owner of an SBE-certified specialty contracting business stated, "Insurance hasn't been a problem for me because I've never had any claims." [FHWA#35]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm reported that she has signed up with State Fund, which is pay-as-you-go. [FHWA#38]

Prequalification requirements. Public agencies, including Caltrans, sometimes require construction contractors to prequalify in order to bid or propose on government contracts.

Some interviewees reported that prequalification presented a barrier to obtaining, including work with Caltrans. [e.g., FTA#16, FHWA#45a] For example:

- When asked whether his firm experienced any unnecessary prequalification requirements the Black American male owner of a telecommunications firm said, "It's very bureaucratic, and frankly I think there's a lot of corruption. It has gotten to a point of frustration where we almost abandoned proposing. We used to get calls from municipalities to do quotes, but

we quickly realized that the only reason they were asking for the quote was so they could make the three-bid requirement that they needed to satisfy the bidding process. They already had their vendor selected. So, that became a big waste of time. Even those so-called set asides are a joke. We used to get involved and go through all this paperwork and bureaucracies certifying your business and then have to do it again the following year. That was absurd.” [FTA#13]

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that prerequisites for experience can function as a barrier for small businesses pursuing work in the public sector. “A lot of the federal contracts are looking for three years of experience doing similar work. Which means that for a small business getting started, it's hard to jump directly into government or public sector work. You almost have to start in the private sector and build some sort of business and get some references and create a track record of some sort that you can then take to the government and say, ‘Look, we're capable. And now we think we're ready to do government contracts.’” [FTA#15]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported challenges with approval of materials when working on public sector projects. He said, “Sometimes the approvals seem like they take a little longer. It seems like from the time we submit the approvals until when we actually start [working] could be a month.” [FHWA#11]

The same business representative added that Caltrans performs differently than other agencies in that they use Caltrans employees for the inspection process. Whereas many other agencies will contract a portion and just oversee the project. He went on to say that the contracted inspectors or quality control people could add difficulty to the project because “some of those outside agencies don't have the same approval process. [With] Caltrans pretty much anytime you start a job they'll come out and inspect the material before fabrication.” [FHWA#11]

- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm reported that her firm has to submit prequalification information “all the time.” She added, “some of the prequalification information that we do fill out, I feel is redundant. There needs to be another way to pre-qualify. It takes ten minutes out of one of our days. I know that ten minutes does not sound like a lot, but at the same time, every bid that we do takes a ten-minute situation. Well, that could take a long time for multiple bids.” [FHWA#56]
- The non-Hispanic white male representative of an engineering firm reported that the biggest challenge in securing work in the public sector is preparing the proposals and providing Statements of Qualification. He said, “It's quite a bit of an investment for us. You have to have a dedicated department for resources and staff to be involved in that area. It's just that getting that marketing material and getting all that out.” [FHWA#33]
- The non-Hispanic white male representative of a DBE-certified construction-related firm commented, “That [prequalification] is something I do all the time. It is a pain.” He added that time to complete the prequalification process is challenging. The representative commented that it would be helpful “if [public agencies] could centralize [prequalification]

or have a clearing house for all their subs where we have to meet certain criteria, they can keep an eye on us monthly and we can report.” [FHWA#53]

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm suggested that subcontractors be prequalified. She suggested that the state “find out what you do [the subcontractor] and get you prequalified to partner you with specific contractors that have those specific needs.” She said this would help to improve the number of opportunities for subcontractors. The owner reported that the current prequalification process is too broad. She also noted that a representative of a state agency informed them that it would take too much effort to change the process. [FHWA#3]
- When asked about prequalification requirements, the Black American male owner of a DBE- and SBE-certified contracting firm responded, “One public agency in particular didn’t require or doesn’t require prequalification; however, they do have new online bidding programs which are hard to get through. The thing is that you have to wait on them to respond to you.” He added, “I’ve tried to get a number a few times to bid and I wasn’t successful.” [FHWA#61]

However, some interviewees indicated that prequalification requirements are not a barrier or are standard in their industry. [e.g., FTA#6, FHWA#12, FHWA#38, FHWA#39b, FHWA#41, FHWA#47, FHWA#48, FHWA#50, FHWA#51, FHWA#52, FHWA#55, FHWA#57] Examples of those comments include the following:

- The non-Hispanic white male owner of an engineering firm stated that his firm is a “professional business,” and explained that he responds to RFP’s as he becomes aware of them. He said that the primes his firm works with are familiar with his work, so prequalification requirements do not present a problem. [FHWA#42]

Licensing and permits. Certain licenses, permits, and certifications are often required for both public- and private-sector projects. The study team discussed whether licenses, permits, and certifications presented barriers to doing business.

Many business owners and managers reported that obtaining licenses and permits was not a barrier to doing business or not required in their industry. [e.g., FHWA#13, FHWA#20, FHWA#22, FHWA#25, FHWA#26, FHWA#30, FHWA#39a, FHWA#42, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#50, FHWA#52, FHWA#55, FHWA#57, FHWA#61] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, “We have permits we have to get for equipment but Caltrans is always pretty easy to deal with as far as that goes. Just go right in the permit office and they knock them right out.” [FHWA#10]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported no barriers or challenges with licenses or permits. He said, “every two years we have to get a new license, and do continued education.” [FHWA#17]

- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that that his firm rarely has to obtain permits but added, “It’s just, again, more paperwork.” [FHWA#32]
- Regarding her experiences with licenses and permits, the female owner of a WBE-certified transportation firm said, “I have all of that and everything seems to be smooth. It’s an easy process; I just fill out the information and everything works out well.” [FHWA#34]

Some business owners reported that obtaining licensing or permits could be more of a barrier for small businesses than larger firms. [e.g., FHWA#16]

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that obtaining licensing and permits was important for doing work with public agencies, but that the processes could be time consuming and moderately complex. He named several federal and state public agencies with which he is registering and licensing his firm in order to meet the requirements for performing work with those agencies. He indicated that the understanding the licensing and permitting requirements was research-intensive and up to the business owner to figure out, with little specific information or advice provided by the agencies. [FTA#15]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm said that getting permits, as a subcontractor, was generally not a problem “because the prime gets the permits and gives us a copy of them.” The owner added, however, that the few times his firm has had to obtain permits for themselves have been difficult. “Getting permits is terrible. You go up to the City of L.A., you go in there in the middle of the day and they’ve got these huge offices in there, there may be one or two people in there.” He stated that permit process in the City of Los Angeles is much slower than in Orange County because they do not have the staff to handle the volume. [FHWA#8]
- The Hispanic American female owner of a specialty construction firm stated that building permits take a long time and are very detailed because they require a lot of information that “I often feel it is completely unnecessary.” She also said that she deals with many jurisdictions in obtaining building permits, and some are easier than others. [FHWA#58]
- The Black American male owner of a specialty contracting business said, “I’ve noticed licensing [is] not too bad, but permitting [can be difficult]. Certain billing departments are a lot harder to work with than others.” He said “none of them really seem to have a standard way about doing things. So, you can build in Sacramento and you can build in over El Dorado Hills, and even though they’re only 20 minutes away from each other, there’s a completely different set of standards that they’re working under, so that makes it difficult.” [FHWA#27]
- Simplify, the non-Hispanic white male representative of a DBE-certified construction-related firm stated, about licensing and permits. He explained, “My work may require different permits. It would make sense for me to deal with one permit listing everything. Instead, I am required to double permit. I have to submit everything even though they already have the plans. I have to pay again. To me, it’s double dipping.” [FHWA#53]
- The non-Hispanic white male representative of an engineering firm said, “Navigating the maze that it takes in order for us to be able to get our permits is one of the challenges.” He

said that once a company works with an agency and understands their requirements, it becomes easier; but, until that time, it is a challenge. He added, "Licensing is not an issue." [FHWA#33]

Size of contracts. Interviewees had a range of comments as to whether the size of contracts presented a barrier to bidding.

Some interviewees reported that the size of contracts, either too large or small, could present a barrier to bidding. For example:

- The male representative of a public sector agency commented that the size of a project could be challenging to small businesses. He remarked, "All things that come along with large contracts more paperwork more money involved and more logistics can be a challenge." [FHWA-PF#4]
- The Black American male representative of a minority trade organization stated, "The size of contract - you better know what you're qualified to do. So, you've got to ask yourself." [FHWA#52]
- The Black American female owner of a DBE- and SLBE-certified construction-related business when asked if contracts sizes pose a barrier for her firm answered, "Well I learned early on don't bid on anything less than \$10 million. If I bid on anything less than \$10 million, it doesn't make sense. This is not economical or feasible because I really would not make anything. Those are the contracts that I go after, \$10 million and higher." [FHWA#48]
- The female owner of a specialty service firm remarked, "Nothing much goes on with our local Caltrans office. I would like to bid on larger projects that involve the Kern County area." [FHWA-WT#34]
- The non-Hispanic white male representative of a general contracting company when asked if a contract's size ever prevents his firm from bidding on it reported that his firm has an aggregate and a per job threshold, beyond which his firm will not bid on a project. [FHWA#41]
- The non-Hispanic white male owner of an SBE-certified consulting company said that the size of a contract does limit his firm's ability to bid on it. He said that his firm is comfortable performing in the public sector, as a subcontractor, for contracts up to \$80,000. [FHWA#44]

Some businesses reported that the size of contracts was not an issue or said that they have developed their own limits or comfort zone. [e.g., FHWA#10, FHWA#26, FHWA#38, FHWA#42, FHWA#45a, FHWA#51, FHWA#53, FHWA#55, FHWA#57, FHWA#58, FHWA#60] Some pointed to financing; subcontracting and other partnering relationships; and the ability to staff up or rent needed equipment in order to handle large contracts. For example:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that his firm bids on and performs on a variety of contract sizes, ranging from \$250,000 to \$1 million a year. [FTA#15]

- The Black American male owner of a DBE- and SBE-certified contracting firm when asked if the size of available contracts poses a challenge for his firm answered, “Where I’m at now is a comfortable place.” He indicated that \$1 million dollars is the contract threshold that he pursues as a prime. [FHWA#61]
- The non-Hispanic white female owner of a DBE-certified consulting firm stated that the size of contracts her company takes on varies based on the sector. The public contract range is \$10,000 to \$25,000, and private contracts go as high as \$1 million. [FHWA#39a]

Any unnecessarily restrictive contract specifications. The study team asked business owners and managers if contract specifications presented a barrier to bidding, particularly on public sector contracts.

Some owners and managers indicated that some specifications are overly restrictive, do not make sense, or present barriers. [e.g., FHWA#38, FHWA#45a, FHWA#48, FHWA#55] For example:

- When asked about his firm’s experience with doing work with public agencies, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that the overall experience was positive but that there were a few drawbacks to working with a public agency. He complimented the agency’s system for keeping track of contractors and contractor performance, and for giving opportunities to disadvantaged businesses. However, he expressed minor frustration at the large number of rules and regulations that need to be researched, understood, and followed, as well as some minor frustration with the disconnect between the agency staff who administer and approve contracts versus the agency staff that his company actually interacts with at the contract site. [FTA#15]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm indicated that an unnecessarily restrictive contract specification is the American Institution of Steel Construction (AISC) certification randomly added to a job. He said, “[It’s] a pretty involved process to become AISC certified. It seems like some of the [prime] contractors put this requirement in on one job, [but] they do not have it on another. [Sometimes we] send in an RFI (Request for Information) on whether it [is waivable]. Sometimes they waive it, and sometimes they don’t.” [FHWA#11]
- The non-Hispanic white male owner of an engineering firm noted that he has only experienced one contract that had unnecessarily restrictive contract specifications. He said, “I hadn’t even been on the job, and they want something in about a week. So, they throw ‘It’s in your contract,’ and I told them, ‘You know what, if I would have known that I had to do this, I wouldn’t have gotten the job. It wasn’t worth it.’ It wasn’t that big of a job.” [FHWA#42]
- The Native American male owner of a DBE-certified construction-related firm stated that local school districts require a five-year “track record” for work performed in his industry and that requirement is unnecessarily restrictive to smaller firms. [FHWA#49]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that he has experience dealing with unnecessarily restrictive contract specifications. He said that when he was faced with difficult contract specifications, he “just

negotiated a way out.” He stated, “There is no reason, if you are not comfortable with something in the contract do not sign it but a lot of smaller guys will get intimidated.” The owner added that smaller businesses might be intimidated by thinking that a contract opportunity is in jeopardy if they challenge the contents of the contract specifications. [FHWA#47]

- The non-Hispanic white male representative of a general contracting company said that he believes there is a tendency for owners to place more risks on prime contractors. He also stated that he would often make a decision not to pursue a project because he believes there will be a long-term dispute over contract specifications. [FHWA#41]
- The non-Hispanic white male representative of a DBE-certified consulting firm indicated his awareness of unnecessarily restrictive contract specifications. He explained, “The agency won’t pay you until the job is done and it’s a six-month job.” He added, “sometimes that one clause gets you in trouble and you don’t even realize why. If we really have a problem, we’ll actually have an attorney read it to us to make sure that we understand what that clause is before we sign.” [FHWA#39b]
- The non-Hispanic white male owner of a specialty contracting company when asked if he has ever encountered unnecessarily restrictive contract specifications said, “I know Caltrans is kind of difficult because everything is metric with them, their measurements and everything. I don’t really have any experience with their specifications.” [FHWA#51]
- Regarding Caltrans’ contract specifications, the non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported, “We sat down [with Caltrans], not once, not twice, [but] three times and discussed what I was building. We submitted the plans exactly how [the state] wanted them.” She said, “When we would submit [the plans], [they] would get rejected because [the plans] [were not] per Caltrans specifications.” [FHWA#22]

The same business owner reported that they went back and forth many times with Caltrans on the plans. She said, “We just sat in a meeting where [the state] said specifically he didn’t want [something and] that’s why we designed it like this. We went through four or five revisions and each of them got rejected.” She said, “In the end, we built it exactly how it used to be which doesn’t work, which is why we were building something new.” [FHWA#22]

Some businesses reported no barriers resulting from overly restrictive specifications. [e.g., FTA#6, FHWA#46a, FHWA#50, FHWA#52, FHWA#53, FHWA#58, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of an SBE-certified consulting company when asked about unnecessarily restrictive contract specifications, said, “We are such a small fish in this pond that if we are fortunate enough to win a public contract, we are in no position to argue the terms of the contract.” The owner added that he is aware that at times specifications can be overly restrictive. He also stated that if there are restrictive terms, he considers them and decides if he wants to pursue the job or not. [FHWA#44]

Prevailing wage, project labor agreements, or any requirements to use union

workers. Contractors discussed prevailing wage requirements that government agencies place on certain public contracts. They also discussed other wage-related issues.

Many business owners and representatives indicated that prevailing wage requirements could present a barrier to working on public contracts. [e.g., FHWA#9, FHWA#15, FHWA#18, FHWA#34] For example:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that none of his company's current contracts had union requirements. "I did look at contracts to provide services at [an airport] owned and operated by a government agency. That contract specifically does have a union involved, and I ultimately decided not to bid on that job because I did not want to expose our employees to union. The local wage is actually higher than the federally stated minimum for the job that we're doing. Due to it being in San Francisco, even the 15-dollar minimum barely attracts the people that we need. So, as minimum wages are being taken over more and more by cities and counties, that is creating an issue for us in trying to keep up with the labor market." [FTA#15]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said he had encountered problems with certified payroll properly identifying workers on the job site. "When it's a certified payroll job, everything has to be accounted for and sometimes certified payrolls get screwed up. The owner reported, "on the job site the problem is when you're dealing with employees in the field, a lot of them have a sense of humor about it and they never give the [inspector] the right name and then three months later [the certified payroll gets kicked back]." [FHWA#10]

The same business owner added that certified payroll works better with the City of Sacramento than with Caltrans. He reported, "For Sacramento the certified payrolls are on an LCP tracker [and] as long as all the updates go in place with the software seems to work pretty well [and] a problem gets caught relatively quickly." He added, "[whereas] with Caltrans notices [get sent] for something that happened a year ago and you have to go and try to track [and] figure out [the problem]." [FHWA#10]

- The male representative of a public sector agency commented that he thinks some contractors are not aware of the challenges they face with the minimum wage requirements in the public sector. He remarked, "[Some contractors are] used to paying X amount and then they come to the public sector, they have to pay double that and they don't understand all that comes along with that." [FHWA-PF#4]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, "We do [prevailing wage requirements]. The rules change constantly especially in California." [FHWA#45a]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm reported that prevailing wage requirements are not always clear in his business. He explained, "When you ask a contractor 'is it a prevailing wage?' they always say no [and] then when the job is done, they ask you for certified payroll. That happens all the time." He added, "I was doing a job in [one city] and the rate was low and we didn't have much work [at] that time. So, I took that job and I asked her [if the job had prevailing wage

requirements.] She said, ‘No’ I recorded that because I knew that was a prevailing wage job and she called me after that job and said ‘Hey, I need certified payroll.’ So, I played the recording. You know, she never used me again.” [FHWA#54]

- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that having to accommodate union apprentices on jobs is a challenge. She said, “That’s a problem; that’s a big problem. We have to request a laborer for a job from the union. What is that [person] going to do? We are a non-apprenticing field Now the requirements are saying the apprentice has to be doing what our laborer is doing. You cannot have them do shovel work.” She added, “[The apprentice] has to be learning his trade. You can’t expect a qualified, experienced laborer that’s running a piece of equipment to give it over to a person that knows nothing. This is a dangerous job. There [are] multiple aspects that are dangerous and you cannot put a generic person behind the equipment. It’s just not practical, we have to pay a laborer for four hours minimum whether it’s been an hour or whatever. So, they get prevailing wages and it’s a real headache.” [FHWA#7]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that he is a member of a trade union, and he is familiar with prevailing wage requirements for public agencies. He went on to say “[prevailing wages are] intimidating but there are associations you can go to for help on the prevailing wage. If you are a small company contractor and want to work for Caltrans, the company must be union that is a barrier.” [FHWA#47]
- When asked about his experience with prevailing wage requirements, the Subcontinent Asian American male owner of a DBE-certified engineering firm reported that he had a project with a prominent California city using LCP Tracker to track prevailing wage. He stated that he followed the prevailing wage requirements; and, when he went to enter them into LCP Tracker, the amounts were different. [FHWA#12]

The same business owner reported that he ended up paying that employee more than the prevailing wage rate. He added that the city claimed that he provided incorrect documentation, and “they are holding my payment. They are holding my bond. [Labor laws are killing] small business. No one is thinking about the small business. Small business is the backbone of this country.” [FHWA#12]

- The Hispanic American male owner of a specialty construction firm reported that the costs of paying prevailing wages could be difficult for his company. He said, “The prevailing wage thing is very difficult for us. We’re a small company. It doubles my labor liability.” [FHWA#4]

The same business owner added, “I think a mason right now is at \$52 an hour. I understand why they do that, but it is unfair in the standpoint that the union people are not paying that. Now my cost is that, but the worker does not get that, he only gets \$30 an hour. All the rest is the stuff for vacation, retirement, union dues the fringe benefits, which a lot of them never get. Because all my friends in the Union, the reason they leave is they are only working three days a week. The job shuts down. The union [workers] call, ‘hey you got any work?’ I say ‘yeah we’ll give you a day or two.’” [FHWA#4]

- Regarding prevailing wage requirements, the Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated, “It is a nightmare just

putting that all together [and] making sure everything gets paid correctly and everyone has the right wage.” He said, “I think we missed one at one point and so we had to go back and make sure everyone got paid the correct rate because there was a notice that the rate went up.” He said, “Dealing with that stuff is interesting. [It’s] a paperwork nightmare essentially.” [FHWA#23]

- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that she received notification that online prevailing wage reporting was mandatory and later received an email directing her to abandon the online format and submit hard copies. She said, “It’s cumbersome [with] lots of paperwork involved. I think it needs to be streamlined.” She also commented that not being a unionized firm can be a disadvantage. [FHWA#24]
- When asked what challenges small business face, the non-Hispanic white male owner of a specialty contracting company responded, “Unions.” He continued, “They don’t like [companies in his trade] that makes it really hard on [those in his trade].” He also noted, “I was union for probably 15 years. When the downturn came, I stepped out of the union because it was too expensive.” [FHWA#51]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company reported that prevailing wage and union requirements make working in the public sector harder for her firm. She said, “You have prevailing wage and then you have to hire apprentices that just slows down your production.” She said, “I have to bring a stranger in from the union that doesn’t know anything. [We] have to try and train him in the few days he’s going to be [with us] and then they always claim unemployment on me.” She noted, “I’m not going to keep them [as employees], but I have to have them in order to have these public works projects.” [FHWA#20]

The same business owner added, “Since we are not in the union, the union tends to send us their least-qualified people [when job requirements require that we hire union workers], because they don’t want us to keep them.” [FHWA#20]

- Regarding the prevailing wage requirement, the non-Hispanic white male owner of an SBE-certified specialty consulting company stated that his firm pays qualifying employees the prevailing wage amount but expressed frustration with the requirement. He said, “My opinion of prevailing rate, it is unfair for the private [employer]. The private [employer] has to pay this higher wage and we cannot compete with the signatories.” [FHWA#29]

The same business owner reported that prevailing wage requirements are unfair because prevailing wage requirements apply across the whole state. He said that the specific set wages might make sense on “the coast because the cost of living is higher [but it causes] the cities and the counties [in other parts of the state] to pay exorbitant costs to put structures up, thus putting the burden on the taxpayer.” [FHWA#29]

Many firms said that prevailing wage requirements are not a barrier when working on public projects or are part of doing business, can be beneficial to employee morale, or are not factors in their industry. [e.g., FHWA#5, FHWA#13, FHWA#14, FHWA#17, FHWA#19, FHWA#22, FHWA#25, FHWA#26, FHWA#28, FHWA#30, FHWA#32, FHWA#33, FHWA#35, FHWA#36,

FHWA#38, FHWA#39a, FHWA#42, FHWA#44, FHWA#46a, FHWA#48, FHWA#50, FHWA#52, FHWA#53, FHWA#55, FHWA#58, FHWA#60] For example:

- The Black American male owner of a specialty contracting business reported that when he has been subject to prevailing wage requirements, “It wasn’t too bad.” He said, “I had a good general [contractor that] helped me along the way with things. The extra paperwork I didn’t find it to be that bad, but it is something that I had to be compensated for.” He added, “If I didn’t have to deal with all the extra paperwork, I wouldn’t have to charge extra for it.” [FHWA#27]
- The female representative of a CUCP WBE-certified specialty construction firm reported not working with Caltrans but stated, “The upside [of working in the public sector] would be that it’s a prevailing wage job and it really does keep your employees happy to have that bump in pay.” The representative said, “Actually our employees absolutely love it, and we love our employees to be happy. So, we would prefer to work on prevailing wage jobs.” [FHWA#16]
- The non-Hispanic white male representative of a general contracting company stated that prevailing wage requirements present no problem for his firm. He said, “We perform [projects with] prevailing wage [requirements] all the time.” [FHWA#41]

Bidding processes. Interviewees shared a number of comments about bidding processes.

Many business owners said that procedures for bidding and proposing presented a barrier to obtaining work and put larger firms at an advantage. Many interviewees mentioned the time involved in preparing a bid or proposal puts small companies at a disadvantage. For example:

- When asked if the firm has experienced any disadvantages or barriers when pursuing contracts, the non-Hispanic white female owner of a DBE-certified engineering firm noted, “Yeah, I definitely think there’s disadvantages a lot of the projects are too big for me to take on by myself because I am a small business. I have to be on the team and the DBE definitely helps with getting me on that team. So, yeah, there’s a lot of disadvantages. I can’t provide all the services that most projects out there want like environmental, geotechnical, survey. I’m very specialized in what I do and I’m one person. So, it’s like I can’t take on too big of a project unless the projects out there that they’re putting out for a proposal are too big for me. So, I have to get on a team in order to get the work.” [FTA#6]
- When asked about the firm’s experience learning about contracting opportunities the non-Hispanic white male co-owner of an engineering firm explained, “The barriers are when the firm is trying to get into a contract [and] bidding to be contracted, for two reasons. We don’t have firm experience and a relationship with an agency, and this just happened to us, recently, [where we] bid on a project and [were not] selected because the other firm took part in the project phase one. Although we came with a better price, they didn’t tell us but it’s a good chance that they chose that other consultant because they already have a relationship with that consultant.” [FTA#11]
- When asked about his firm’s experience with bidding processes used by public agencies, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm said that he generally thought that the process was straightforward, but did note one

difficulty with bidding. He stated, “[There] are two different things that the federal government uses: a statement of work, [which] essentially tells you exactly what to do and how to do it. Whereas a performance work statement is more focused on the outcome and how you [achieve] that is more up to you, which creates more flexibility for the contractor to be innovative and to find better ways to do things. In our case, it has been a bit of a challenge where the government has issued a requirement that is perhaps more specific and more restrictive than we believe it should be. When I come in and look at the job, I can often find ways to improve the process to increase the speed of the work, increase the value, lower the cost of the operation, etcetera. But if the government requirements are too restrictive, then some of those opportunities are lost.” [FTA#15]

- The Hispanic American representative of a woman-owned trucking firm commented about the bidding process. She said, “That’s difficult, just getting your bid accepted. Most of the time, we’re getting underbid by owner operators that are just running a truck and under bidding all the work.” [FTA#17]
- A representative of a parking facility stated, “The one thing that frustrates me most often is that most contracts require a certain amount of experience. You can’t get the experience you need because everyone is seeking the companies that have the experience already. Which means the new businesses have difficulties with expanding. I think that the government can help more by giving the small businesses contracts.” [FTA-AV#10]
- A representative of a transportation firm expressed how giving contracts to outside companies makes it harder for smaller local businesses to get contracts, “You should not award contracts to tax inversion out of the United States i.e. Greyline, etc. it prevents the small businesses from getting contracts.” [FTA-AV#13]
- A representative of an MBE-certified engineering firm expressed how the bidding process has been for his firm, “It’s been difficult. There are a lot of prime consultants that are well known, making it difficult to find work.” [FTA-AV#18]
- A representative of an engineering firm expressed how the bidding process is for larger firms and excludes smaller firms from bidding on contracts even as a subcontractor stating, “The bidding process is really saturated. There’s a lot of big firms so it’s hard to be suitable for bigger contracts. It’s even harder to find primes to sub with us.” [FTA-AV#24]
- A representative of an engineering firm provided thoughts on how the bidding process can be a barrier for small businesses stating, “One barrier is the minimum experience required on bids. If you don’t have the required amount of experience to purchase bids you will never win a contract.” [FTA-AV#30]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm remarked that entry to the public sector lacks personality and participation. The owner described the Caltrans bidding process as being too “boilerplate.” She stated that the Caltrans website does not provide opportunity for a DBE company to describe specifically what they do. [FHWA#3]
- The Black American male owner of a DBE- and SBE-certified contracting firm commented that he is uncomfortable with the bidding process at the state level and believes it is unfair. He stated, “Right now with Caltrans I don’t feel comfortable to bid.” He explained that

around 2009, “It changed...it wasn’t always [unfair] like that, but it changed.” He further added that bidding is more open on the local level than it is on the state level. [FHWA#61]

- The non-Hispanic white male owner of a professional services firm said that “getting on contractors’ lists and bidding is particularly difficult for smaller companies. The rules and paperwork required is a barrier.” [FHWA-AV#8]
- The non-Hispanic white female owner of a WBE-, SBE and DBE-certified specialty construction firm said that, in the public sector, “no matter how many times you work for [a prime contractor], it’s all about whoever is the lowest bid. And that’s just how California is set up.” [FHWA#22]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm said, “If you fix the bid process, you’re going to fix a lot of other stuff. If you fix the bid process, the same [person does not] get the job every time. That’s going to make a hell of a change.” [FHWA#8]
- The non-Hispanic white male owner of a professional services firm said the “electronic bidding process is hard to understand.” [FHWA-AV#15]
- The Black American male representative of a minority trade organization reported that the bidding process may be fair, but it is unfair when smaller projects are not available for bid. [FHWA#52]
- The non-Hispanic white male owner of a professional services firm said that “overcoming the knowledge hurdle relating to the requirements for bidding” is a challenge. [FHWA-AV#11]
- The owner of a DBE- and SBE-certified supply firm commented, “I have presented numbers on a few bids that I know no one can meet because I made up the numbers far below anything listed out there in the public, and I still didn’t get a call back. So, I have done it both ways; I have done it legitimately, I’ve reduced numbers to see if I get a response, and I don’t get any back from the contractors that supposedly run the bids.” [FHWA-PF#18]

The same business owner added, “So my position today is that I approach contractors and I do not get any response back after the bid has been awarded.” [FHWA-PF#18]

He further added, “So my concern is: Why does that happen? I’m assuming we must be meeting all of our DBE goals.” [FHWA-PF#18]

- The Hispanic American male owner of a DBE-certified construction-related firm reported facing challenges when submitting a bid for a public works project. He commented, “I had to pay a percentage of my bid for them to accept [the bid] I don’t have the working capital to do that so I can’t submit my bid.” [FHWA-PF#2]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company reported that she would like to look at bids online but gets discouraged when sites require payment to see bid details. She said, “I’m not paying money to look at what is offered. That should be free.” [FHWA#20]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that he feels that the Caltrans’ bid process is somewhat “arbitrary.” He said that it is “terribly unfair” when a company spends thousands of dollars preparing a bid and then

is disqualified for “some arbitrary, capricious decision” like not meeting a DBE/SBE goal despite doing “all due diligence” and supplying supporting documents. [FHWA#47]

- The Subcontinent Asian American male owner of a DBE-certified engineering firm stated, “There is more restriction in the State as compared with the federal government. As far as the bidding process, I think it’s an open competition that the people actually bid their own way.” He went on to say that he believes the bidding process “is a fair process.” [FHWA#12]
- The Hispanic American male owner of a specialty construction firm said, “A barrier for small companies in the private sector is the difficulty in bidding against larger companies.” He commented, “[Larger companies will] underbid a job, or they’ll do a job because they’re already there. They have the ability to work in multiple areas because their equipment is already there. The logistics that they can do makes it very difficult [to compete].” He remarked that “the larger companies will bid projects based on the cost of material and double the cost of their labor, but their job cost doesn’t double [due to economies of scale]. We can’t bid that way because we’d never get it.” [FHWA#4]
- The Hispanic American female owner of an MBE-certified specialty services firm reported that bidding against larger companies is a challenge because “the larger contractors can cut the price way more. You know they can lose more than I can. I can’t afford to lose money.” [FHWA#5]
- The Black American male owner of a specialty contracting business stated, “It’s hard to foresee how projects are going to go when you’re [bidding on government work] because you don’t control everything that’s going on.” He said, “With my jobs I can go out and look at a site and know exactly what I need to get the job done and how long it’s going to take. [With government projects], I had to work around [many] other subcontractors.” He added, “there was a lot of spinning of the wheels a lot [on] the days that I went out there and I couldn’t get accomplished what I wanted to get accomplished. You have to factor that into the bidding process.” He further added, “if you don’t understand that prior to it, then it makes everything kind of difficult. You can lose it really easily if you don’t bid it properly.” [FHWA#27]
- The non-Hispanic white male owner of an engineering firm said that the bidding process is often unfair to smaller businesses. He said it is not fair that a large company can write a “beautiful proposal with fees that are double the fees of smaller local firms.” [FHWA#42]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company expressed some doubt that public agencies properly evaluate the veracity of some of his competitors’ bids. He said that after having read some of the winning proposals, “I could have [written] down a bunch of stuff that those guys wrote down. I don’t know how much they check to see what stuff’s true or not that they write down; that, I would question.” [FHWA#17]
- The non-Hispanic white male representative of a general contracting company said, “It takes a level of experience and competence to make sure that your bid package is complete and responsive.” He also noted that it is critical for a firm to understand the terms of the contract and payment disbursements. [FHWA#41]

- In discussing his firm’s experiences as an engineering subcontractor on LA DWP and LA PWD projects, the Asian American male owner of a structural and civil engineering firm stated it was harder to find work opportunities with these public agencies. He explained, “Normally, we rely mostly through phone invitation. Also, by mail invitation to see if we were interested to bid in that particular project.” He also noted that the bidding process for this public sector work was more challenging. He said, “It’s harder because of the competition involved, the bond requirements, insurance requirements, and the necessary capital to perform the work.” [LAM#27]
- When asked to describe his experience getting work with public agencies in the Los Angeles area, the executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm described a specific instance where his firm worked as a prime consultant on a Metro project that had an SBE set-aside. He explained that the firm teamed with a larger civil engineering firm and that the process with Metro “was a learning experience.” He indicated that it was difficult for his firm to go after the work because they do not have a marketing group or staff to prepare the proposal. He explained, “Our firm is small so our marketing group is one full time person. We don’t have the experience or staff to prepare proposals, especially what we think would be expected by Metro.” He also responded, “It is really not the agencies that are different, but the person we are working with that differs between agencies.” He added it is the management style and execution of the tasks that distinguishes the agencies, but that “[there are] no real differences between the agencies” when performing the work. [LAM#2]
- The Asian American male owner of a DBE-, MBE-, and SBE-certified environmental engineering firm explained, “The one time we bid as a prime was because Metro is doing some SBE set-asides. There is a lot of room for improvement with the process. The timelines are not always humanly possible. When you look at the big giant firms that have proposal teams, they can afford to meet these timelines. They have the overhead; I don’t have the staff. The requirements are the same [for small business set-asides], as the big RFPs. They need to make it simpler. Don’t ask me to provide resumes for 20 people, in a certain format. Tailor it and make it reasonable for a small firm.” [LAM#11]
- The male owner of an engineering company stated, “With the size of a typical project, it presents a major impediment to smaller firms not only trying to grow but trying to stay afloat because us smaller firms do not have the capacity to bid on most projects due to their size, up front capital requirements, and resources.” [LAM-WT#2]
- The female administrator of a DBE-, SBE-certified architecture firm expressed, “RFP requirements are difficult to understand for small businesses. The forms and fee/pricing spreadsheets are complicated and not enough explanations or instructions are given. It may be easy for firms that have done it in the past, but for new firms it’s Greek to us. We are terrified our RFPs will be disqualified or considered ‘non-responsive’ because we did not prepare the forms correctly.”

The same interviewee continued, “A class or an online resource dealing with Metro forms/preparing an RFP would be helpful for ‘newbies’ like us. A simplified version of RFP for small sized projects gives us a chance to practice submitting abbreviated versions of the RFPs which takes up less resources and time to prepare. Most small businesses do not have full-time admin/marketing staff to prepare and handle RFPs. We submitted two RFPs and

both were cancelled so no debriefing was provided. Given our limited project experience we knew we had slim chance of winning the contract; however, we took the time to prepare and submitted the RFP hoping to get a debriefing which will help us write a better proposal for the next time. Unfortunately, when the projects were cancelled, no debriefing was permitted. After spending an inordinate amount of time preparing the RFP, we are still unsure if what we did was good, bad or otherwise. Furthermore, given the time, effort and resources it took for us to prepare the RFPs, I am not certain it's a worthwhile for us to do it again." [LAM-WT#10]

- The non-Hispanic white male representative of a regional disadvantaged business association stated "The No. 1 complaint from DVBEs is that the contracts and process are so lengthy. They have to hire attorneys, which they can't afford. No. 2 is their capability to grow into the contract; they often can't execute. Mom and pop operations can't handle a \$1 million contract. No. 3 is the fear factor, about everything--fear of winning the contract and then fear about fulfilling it. Members fear that the length of a contract and the fact that it could be for as much as \$3 million will be too difficult for them to undertake successfully." [LAM#41]
- The non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm stated, "I've worked with the City of Los Angeles. I've worked with Metro." He continued, "The Metro Look Ahead is not quite accurate. It changes a lot. We worked a lot with SBCTA, Riverside County, RCTC. Their process is very fixed. We send out the RFP, get short-listed, interview, we get the project or not. With Metro it takes forever. A year later, we hear about it and interview. So, it's very unusual for Metro [to move quickly]. And the interview was much less formal. I think that's why we won the job, because we were able to explain the situation. The other agencies bring a lot of third parties. Metro did not have any third parties." [LAM#13]

Several interviewees reported that the amount of "paperwork" presents burdens to small firms. For example:

- When asked about her company's experience in pursuing work with Caltrans, the Asian American female owner of a civil engineering firm said that she had not attempted to win work with Caltrans. She said, "I have no experience in trying to get a contract from Caltrans. I was just told by my accountant that it's very tedious and there is more work involved [than is worth doing]." [FTA#14]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm remarked that a barrier to public sector projects is that she does not know which documents subcontractors are required to submit. She commented that the Small Business Association (SBA) uses a common repository for required documents. [FHWA#3]

The same business owner when asked about challenges to working in the public sector commented that with Caltrans, meeting documentation requirements is always a "fire drill" and that they are always playing catch up. [FHWA#3]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated, “the only disadvantage is in the public sector.... If you are a contractor with Caltrans, paperwork is an issue.” [FHWA#47]
- The Asian Pacific American owner of a professional services firm said, “It’s difficult working with government agencies. We have paperwork and requirement problems that favor our competition.” [FHWA-AV#19]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that businesses the size of his firm have a perception that working for a government agency would entail “a crazy amount of paperwork.” [FHWA#30]
- The non-Hispanic white male owner of an SBE-certified specialty contracting business stated that when working on a Caltrans project “a little more paperwork seems to be involved.” [FHWA#35]
- The non-Hispanic white male owner of a professional services firm said, “The paperwork involved [with submitting a bid] is very time consuming. Getting all the certifications necessary is very cumbersome. It is like singling out a group and the specialty paperwork is very discriminating. It would be nice if our government officials could streamline [the process].” [FHWA-AV#20]
- The non-Hispanic white male owner of an engineering firm said, “There are a lot of difficulties with the permitting process and the paperwork with Caltrans work. Getting bonds and the requirements for their work is too much trouble, and it’s not easy getting payment on those jobs.” [FHWA-AV#21]

Some interviewees reported that having to pay a fee in order to bid online presented a barrier to their firms. For example:

- A female business owner commended Caltrans for their sustainable paperless bidding system but had other comments about barriers she experiences with the bidding system. She commented, “the problem with those systems are that we have to pay to get access to bid BidSync is over \$300 a year for a membership. It precludes or hinders the process of reaching out to local DBEs and giving them opportunities. At least allow Level B [Minor B] to be a free opportunity to bid on it. It would make things a lot more equitable.” [FHWA-PF#8]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported frustration with services like “BidSync” that require you to pay a subscription fee to learn about opportunities. [FHWA#17]

One owner reported very short bidding deadlines on some projects, including some public-sector contracts.

- The minority owner of a DBE-certified communications related firm commented, “I get a fax or an email asking me if I will be supplying a bid on a job as a DBE. The ironic thing is I receive this form two or three days before the bid closing date.” [FHWA-WT#27]

One business owner reported lack of transparency as a challenge to the bidding process.

- The Black American female owner of a DBE- and SLBE-certified construction-related business indicated that she is aware of issues with transparency in the bidding process. She gave an example where when asking a question, she received a response; but the answer was unpublished as a written addendum to the request for bid. “It was never a public response.” [FHWA#48]

Some business owners and representatives did not face challenges from the bidding process or reported that, in their industry, they do not bid. [e.g., FTA#5, FHWA#34, FHWA#36, FHWA#38, FHWA#45a, FHWA#51, FHWA#58] For example:

- When asked how the bidding process was for the firm the non-Hispanic white female representative of an engineering firm stated, “Usually with all of those grants and those contracts it’s pretty up front with all of the materials and requirements. So, I’ve been able to work through those over those years without major issue. Things do take time with getting the approvals. Maybe it wasn’t the right dollar amount or you know. There are hurdles that have had to be jumped, but more often than not I would say it’s a pretty decent process. It’s pretty clear.” [FTA#4]
- The female representative of a CUCP WBE-certified specialty construction firm reported that the bidding process is “pretty straightforward.” [FHWA#16]
- The Black American male owner of a DBE- and SBE-certified construction-related firm indicated that he has not “had any issues with actually submitting bids. The process is fluent, and it is easy. It is simplified. Caltrans does a good job with that. I think everything there works pretty good.” [FHWA#19]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company commented that the bidding process “has been real[ly] good. It is basically we go on the website and if the job pertains to us, we will take a look. We will make some phone calls to contractors to find out if we are going to do the job or not.” He added, “Sometimes they say no and we try to find someone else that might.” [FHWA#46a]

Other comments regarding the bidding process include:

- When asked about recommendations for Caltrans to reduce barriers for small businesses to bid on contracts the non-Hispanic white male owner of an SBE-certified consulting firm stated, “They need to put out more of the smaller jobs as bidding jobs, simplify the bidding process for smaller jobs, which Caltrans already does.” [FTA#1]
- The non-Hispanic white male representative of a DBE-certified consulting firm said, “Well, what we hope to do is to be shortlisted. Once you bid a job, you hope to get shortlisted on one then you just hope that when you go in there and have that interview that you hit a home run.” [FHWA#39b]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that the bidding process, in general, has been okay. She noted, “I prefer agencies that like to have extra points for hiring level. And not enough of them do.” [FHWA#55]

- The Black American male owner of a DBE- and MBE-certified construction company stated that the bidding process “could be made simpler.” [FHWA#60]
- The non-Hispanic white male owner of a pest control firm replied, “My intuition is that I don’t think the information is out there on how public agencies award contracts. What is their procurement procedure? I used to work for the State in contracts and procurement. I was aware how they did contracts. I used to do Accounts Payable. There was an elite group of vendors. I could see how there might be racial limitations there for people – maybe people that didn’t speak English [well.]” [LAM#14]
- The Hispanic American male owner of a DBE- and SBE-certified professional firm responded, “I believe there is unfairness in terms of the selection process. There is favoritism. You get your foot in the door with the proposal, but the panel selection is then very subjective, the scoring is subjective. I think anybody on the panel should recuse themselves from evaluating if they worked with the party being interviewed.”

The same interviewee added “[bench contracts] are also a problem. Why have them? I’ve been a sub on a bench [contract] and never got work. The theory of a bench is that they can use someone right away with no long bidding procedures. This is ridiculous. In my type of work, there are no urgency. It’s not like a water main emergency. These projects are known about many months or a year ahead.” [LAM#3]

- The male owner of an engineering company stated, “Us smaller firms do see the trends that the same typical firms always are awarded the majority of contracts and rightfully so due to their ability to manage and facilitate projects as large as those that typically come out however the same opportunities, maybe on a smaller scale, should be available to other tax paying companies or citizens that are smaller in size because it appears as if most of the tax funded capital projects are distributed only to a select few big companies. There is no recirculation or redistribution of the outflow of tax revenue. [LAM-WT#2]

Non-price factors public agencies or others use to make contract awards. Public agencies select firms for most professional services contracts and some other contracts based on qualifications and other non-price factors. Some contractors face challenges with non-price factors [e.g., FHWA#38, FHWA#45a, FHWA#52, FHWA#55] and others do not. [e.g., FHWA#46b, FHWA#47, FHWA#51, FHWA#56, FHWA#58, FHWA#61] For example:

- The non-Hispanic white male owner of an engineering firm stated that local preferences in contracting are a priority non-price factor for firms in the local area. [FHWA#42]
- When asked questions if there are any non-price factors that affect the ability of small businesses to work in the public sector, the Black American female owner of a DBE- and SLBE-certified construction-related business said, “[Some public agencies] wanted you to have five years of experience with working with a public agency on contracts. Well that’s dumb because if I’m doing it on a private sector, that should be able to count towards what I’m bidding on here.” [FHWA#48]
- The non-Hispanic white male owner of an SBE-certified consulting company when asked if there are any non-price factors that act as a barrier to working in the public sector said that when acting as a prime there is a “time burden.” He stated that the time spent becoming

familiar with the project and preparing a proposal requires a huge investment of time. He added that as a subcontractor the time burden is not as great. [FHWA#44]

- The non-Hispanic white female owner of a DBE-certified consulting firm stated that the staff-hours and fees required producing a bid affect her firm's ability to bid on, or produce high quality proposals for, projects. [FHWA#39a]

Timely payment by the agency or prime contractor. Interviewees often mentioned slow payment or non-payment by the customer or prime contractor as a barrier to success in both public- and private-sector work.

Many interviewees said that slow payment could be damaging to companies. Interviewees reported that payment issues might have a greater effect on small or poorly capitalized businesses. [e.g., FHWA-PF#16, FHWA-WT#14, FHWA-WT#17, FHWA-WT#32, FHWA#3, FHWA#4, FHWA#5, FHWA#9, FHWA#14, FHWA#16, FHWA#18, FHWA#20, FHWA#22, FHWA#23, FHWA#35, FHWA#39a, FHWA#44, FHWA#48, FHWA#50, FHWA#53, FHWA#54, FHWA#55, FHWA#56] For example:

- When asked if primes pay him in a timely fashion, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm responded, "No, hell no. [We typically wait] over 120 [days. The prime gets] paid [and] they just wait. They just love to wait you out. They wait until there's nothing left, and then you have to fight them for late fees and everything else." [FHWA#10]
- The non-Hispanic white male owner of a construction-related firm said, "The biggest problem with bidding on government work is the payment schedule. I typically have to do all the work, supply money, supply materials." [FHWA-AV#31]
- The female Subcontinent Asian American representative of a specialty-consulting firm reported that working with large multinational or international firms is challenging since the large firms can afford to receive delayed payments, but their small subcontractors cannot. The representative offered, "If Caltrans can help through their T-money or any other funding authority to enforce payment in a timely manner that would help small businesses." [FHWA-PF#12]
- The Hispanic American male owner of a DBE-certified construction firm reported that his firm faces challenges with cash flow when Caltrans does not pay in a timely manner for change orders. He remarked, "Caltrans can't make a payment until they make a change order but they want the work done. We don't have the cash flow to keep going, to finance other work." [FHWA-PF#14]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm commented, "Getting paid would probably be the biggest challenge. [We typically] pay our vendors before [we] are paid. So, there's always that possibility that we've funded a job and then we don't get paid for it." [FHWA#11]

The same business representative added that "one nice thing about Caltrans [is that] we know when [the prime got] paid. We know they submitted our progress payment [now] where's our money." [FHWA#11]

- The non-Hispanic white male representative of a general contracting firm reported that timely payment by the agency has “always been slow.” [FHWA#26]
- The Hispanic American male owner of a construction-related firm said, “Caltrans is very hard to work for. They don’t pay you the actual cost of the work, time and materials. They cut it down. You don’t make money working for Caltrans as a sub. You have to wait 60 days to get paid.” [FHWA-AV#32]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm said, “It’s a problem; it’s a big problem. It is worse now than it has ever been. I went knocking on doors [recently]; I was on a rampage and I think the cities are taking too long to pay. They are taking, like, six months. That is bad. That is hard for a subcontractor.” [FHWA#7]
- The female owner of a DBE- and WBE-certified specialty service firm reported that untimely payments from Caltrans has been challenging for her business. She said, “[Caltrans] projects I worked on in December were not paid until July or August. This is not helpful to a DBE.” [FHWA-WT#30]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that timely payment is critical to small businesses’ ability to remain in business. He said small businesses “need to take advantage” of quick pay programs in contracts. [FHWA#47]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated that some primes “don’t pay well.” She said, “They drag the process out and then just when you’re going to get paid, they [claim there is paperwork missing.] They do it intentionally, and I’ve seen this over and over and over.” [FHWA#24]
- The non-Hispanic white male representative of a general contracting company reported that payment from public agencies is generally timely for work included in the contract. However, he said that when it comes to changes in the contract payments could become problematic. He noted that there have been times he has waited over 120 days because the agency’s approval process for contract changes takes so long. [FHWA#41]
- The non-Hispanic white male owner of a concrete inspection agency noted that timely payment by the agency is critical. He said, “I pride myself that I pay my employees within a week or two at the very, very most. That’s regardless if I get paid.” He stated there have been occasions where he paid his employee and never collected payment for the job. “So, I’m out, you know, three or four hundred bucks because I went out of my way.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company commented that timely payment by the agency is ideal as a prime but not so much as a sub. He indicated that he has eaten some costs in the past due to non-payment. [FHWA#60]
- The Black American female owner of a janitorial services firm noted that her firm has experienced slow payments but that the payment delay was not due to racial-, ethnic- or gender-based discrimination. [LAM#26]
- The non-Hispanic white male owner of a trucking firm stated that timely payment by the customer or prime has always presented itself as a challenge but expressed that these late payments are not due to any type of discrimination. [LAM#23]

- The executive of an SBE-certified non-Hispanic white male-owned landscape architecture firm replied, “You usually get some non-payment in the private sector. And since we’re the sub-consultant, we usually don’t have very much control over that. Because you won’t be paid if the primes not paid. Also, if there’s some issue with the primes work or other consultants, the agreement is the prime doesn’t pay sub-consultants unless he or she is paid. So, I would say that [timely payment] is an issue more in the private sector than the public sector.” [LAM#5]
- The non-Hispanic white male co-owner of an SBE-certified construction management and consulting firm replied, “It’s always a challenge because we don’t get paid fast enough. My challenge is 30 percent of my total contract goes to my subs. And all those subs want their money fast. And because I’m a small company I always pay them fast because I want to maintain a relationship with those companies. If we don’t get paid fast enough, we can’t pay them. We always have a huge cash flow issue.” [LAM#13]
- When surveyed, a business owner responded, “We can’t do anything because of the recession. We weren’t paid in a timely matter, and lost a lot due to local agencies not paying on time. [It is a] lack of great business standards.” [LAM-Avail#11]
- The non-Hispanic white female owner of a WBE- and SBE-certified supplier firm confirmed that she has experienced slow payment by customers. However, the delays were not due to racial, ethnic, or gender-based discrimination. [LAM#30]
- The non-Hispanic white female owner of a WBE- and SBE-certified construction firm discussed her experience getting paid in the private sector. She stated, “On a private contract, I was paid last. After hearing, ‘He has a family’ and knowing other sub-contractors got paid well before me. I had no funding for 78 days. [LAM-WT#A]

Some interviewees said that untimely payments are not an issue or they have determined methods of dealing with payment delays. [e.g., FTA#5, FHWA#17, FHWA#33, FHWA#38, FHWA#45a, FHWA#51, FHWA#52, FHWA#57, FHWA#58] For example:

- When asked if timely payments have been an issue working with Caltrans, the non-Hispanic white male owner of an SBE-certified consulting firm noted, “At one point, this is going back some years now, I think the California state government was shut down and all Caltrans payments were stopped. That was difficult. But that’s not really something Caltrans had any control over. Getting paid from a federal agency is awful. Getting paid from Caltrans takes a while but is usually pretty regular. And the process is really transparent. Counties and cities, they’re all over the map. You don’t know what you’re going to get.” [FTA#1]
- When asked about timely payments by agencies or prime contractors the non-Hispanic white female owner of majority owned DBE-certified engineering firm stated, “It definitely takes longer when you’re a subconsultant. I’m not one to charge extra fees and stress over it. Luckily, I’ve had some good years and I have some money in the account, so I can still pay myself. I had a project recently I billed it out in June and I still haven’t been paid. So, there are some that go a crazy amount of time. Typically, I’m usually paid by six months or earlier like maybe three to four months is the average it takes. Sometimes my billing doesn’t get into their billing system till the next end of the month. For instance, it takes

them a month to bill it out to the client and then it takes the client another month to pay then, for them to pay me, it could be another two weeks. So, it's like at least a three-month mark to get paid and you're lucky if it's that." [FTA#6]

- When asked about timely payment by the agency or prime, the non-Hispanic white male owner of an architecture-related consulting firm stated, "It varies, some are good some are not good and it doesn't matter to us, as long [we are] bringing in a certain amount every month." [FHWA#30]
- The Black American male owner of a DBE- and SBE-certified contracting firm commented that timely payment by the agency has not been a problem; Caltrans, specifically, pays on time. [FHWA#61]
- Regarding other public agencies, the same business owner suggested that they consider the effects of slow payment when budgeting for projects. He said, "Your advance billing, your ability to pay, affect your outcomes. If you are not paid on time, that can cost you possibly 30 percent more in business. Consideration should be given by agencies because the late fees rack up cost of doing business." [FHWA#61]
- The Black American male owner of an MBE-certified trucking firm when asked about timely payment by the agency or prime reported, "the companies that I work for now, I haven't had [any] issues. The only time I had an issue [was] with Caltrans." He reported that Caltrans has "a 60-day turnaround" on payment, which is difficult for his firm. [FHWA#25]
- The non-Hispanic white male owner of a specialty contracting business said if the agency or prime has a history of running late with payment, "you factor that in" to your bid. [FHWA#31]
- The Black American male owner of a specialty contracting business reported, "All the government jobs that I've had have paid right away and I've had really good experiences with the engineers and generals that I've worked with in the government field." [FHWA#27]
- The Black American male representative of a general contracting firm stated that his firm assists DBE subcontractors with payments. "We do mobilization payments, or if we need to, pay them more often than once a month. [We pay them] usually within five to ten days." [FHWA#26a]
- When asked if her firm has ever had issues receiving timely payment, the Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm said, "Sometimes with the City [there have been issues]. Overall, no. I've been very fortunate that any federal jobs that we're doing, any State jobs, we get paid on time so – or within the time frame that we're supposed to get paid, so I like those jobs." [FHWA#13]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company stated that untimely payment is not a problem. He said, "We know they're going to be 45 days." [FHWA#32]

Any additional disadvantages or barriers associated with being a minority- or woman-owned small business.

- When asked about barriers for veteran- or service-disabled veteran-owned firms seeking work with public agencies, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that the state of California excludes LLC corporations from its Veteran Business Enterprise program. He said, “Our company is currently an LLC and so we’re not allowed to participate in those benefits in the state of California for state contracts. And in many cases, counties and cities in California have adopted those same standards which means there are companies at a disadvantage. Now, I’m working on changing that by converting us from an LLC into a different type of corporate entity which would then allow us to register with the state.” [FTA#15]
- A Black American owner of an MBE-certified transportation firm explained how barriers affected the firm stating, “One of the barriers is that transportation is regulated by the government and it creates a stop guard to people who need it. It’s very bureaucratic, very rigorous if you don’t have the resources. People can be misinformed, people from low-income homes don’t have access to information. We don’t see public agencies encouraging carpools and public transit service.” [FTA-AV#1]
- The female principal of an engineering firm and representative of a woman-owned business joint venture expressed the concerns of her joint venture partner, a principal of a DBE- and WBE-certified engineering firm, and herself, regarding barriers and challenges they faced with bidding on a Caltrans project that has resulted in legal action. [FHWA-WT#36]

The same representative reported that the woman-owned joint venture experienced discrimination since Caltrans awarded a contract, based on unfair scoring procedures, to a male-owned firm who were less qualified. She remarked, “Caltrans appears to have no intention of correcting the grave error they made in the original unfair scoring or the fraud committed by Caltrans staff.” She added, “That is evidence of discrimination on the basis of gender and retaliation for those discrimination victims taking Caltrans to court over the unfair scoring, which favored a male-owned business.” [FHWA-WT#36]

Other business owners did not report any additional disadvantages. [e.g., FHWA#23]

F. Other Allegations of Unfair Treatment

Interviewees discussed potential areas of unfair treatment, including:

- Denied opportunity to bid;
- Bid shopping and bid manipulation;
- Unfair treatment by prime contractors, agencies, and customers during performance of the work;
- Unfair treatment by prime contractors and agencies regarding approval of;
- Unfavorable work environment for minorities or women;

- Any disadvantages for small businesses regarding these issues; and
- Any double standards for minority- or woman-owned firms when performing work.

Denied opportunity to bid. The interview team asked business owners and managers if they have ever been denied an opportunity to bid.

Some interviewees said that they have been denied an opportunity to bid on projects. Some specifically attributed the denial to discrimination. For example:

- The president of a DBE-, SBE-, and MBE-certified engineering and construction firm commented, “Midsize firms resent minority firms and won’t work with them. Large firms are masters at keeping the work DBEs can do.” [FHWA-WT#11]
- The non-Hispanic white male owner of an engineering firm commented that his firm experienced denial of the opportunity to bid is because it is not a minority- or woman-owned business. [FHWA#42]
- The Black American representative of a minority trade organization said that members of his organization have reported denial of opportunities to bid. He said, “There are a lot of cases mostly in the private sector.” [FHWA#52]

Some interviewees indicated that they experienced an indirect denial of opportunity to bid. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm when asked if his company has experienced denial of an opportunity to bid responded “Not directly. Well, I do know of it, but [the prime] wouldn’t put it in writing.” [FHWA#10]
- The Native American male owner of a DVBE-certified transportation firm commented that he has experienced denial of an opportunity to bid indirectly. He explained, “Well there are certain people out here that have been doing a certain work for a long time. With that, I have encountered limitations. The limitations have been legal and there is nothing I can do about it. Nobody will ever say no to you because they know they will be sued. It was not ever direct. It is never directly. It’s indirectly.” [FHWA#57]
- The non-Hispanic white male representative of an SBE-certified engineering firm commented, “I think sometimes, especially with Caltrans, I don’t get the sense that small businesses are welcome. I get the sense that that it is the big boys they want to use.” [FHWA#28]
- The Black American male owner of a DBE- and SBE-certified construction-related firm indicated that he suspected he had but was not certain. He said, “If there was [a denial of opportunity to bid], they are not going to tell you that up front. They are too smart.” He commented, “You can pretty much tell.” He stated that “it might be [and] it might not be. I can’t say if it is or isn’t, but [I] get strange feelings sometimes.” [FHWA#19]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that the only times that her firm could have lost the opportunity to bid is when primes want to self-perform on projects thus preventing her from an

opportunity to bid on the project. Overall, she has not experienced the denial of opportunities to bid. [FHWA#13]

Most interviewees indicated that they have not experienced or have no knowledge of denial of opportunities to bid. [e.g., FHWA#3, FHWA#7, FHWA#9, FHWA#11, FHWA#12, FHWA#16, FHWA#17, FHWA#18, FHWA#20, FHWA#21, FHWA#22, FHWA#23, FHWA#24, FHWA#25, FHWA#26, FHWA#27, FHWA#29, FHWA#30, FHWA#31, FHWA#33, FHWA#35, FHWA#37, FHWA#38, FHWA#39a, FHWA#40, FHWA#41, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#53, FHWA#54, FHWA#56, FHWA#58, FHWA#59, FHWA#60, FHWA#61]

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that, in his experience contracting with federal agencies, he had never experienced a denial of opportunity to bid or experienced bid shopping or bid manipulation. [FTA#15]

Bid shopping and bid manipulation. Business owners and managers often reported being concerned about bid shopping, bid manipulation, and the unfair denial of contracts and subcontracts through those practices.

Many interviewees indicated that bid shopping and/or bid manipulation exists or felt that it might be prevalent. [e.g., FTA#16, FHWA#5, FHWA#9, FHWA#15, FHWA#30, FHWA#32, FHWA#38, FHWA#39a, FHWA#40, FHWA#43, FHWA#44, FHWA#48, FHWA#52, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#60] For example:

- When asked if the firm has witnessed bid shopping the non-Hispanic white male owner of an SBE-certified consulting firm stated, “I [haven’t] had much of a chance to get work in my current field but when I was in my construction field, there was certainly bid shopping going on. I was the chief estimator of this contractor for 10 years. And you get to know all the subs, you get to know whose buddies with who and it’s pretty easy to figure out when you do your bidding post-mortem. It’s pretty easy to figure out in most cases when there’s been special bids given by one sub to a general. That’s just part of the field we’re in. Bid shopping, that’s why I left. That’s going to be hard to quaff.” [FTA#1]
- The representative of an MBE-certified transportation services firm stated that, within the transportation industry, bid shopping was a normal and common occurrence. “It happens every day.” She also indicated that bid manipulated was not uncommon in her industry. [FTA#12]
- When asked if his company was ever denied the opportunity to bid, the Black American male owner of a telecommunications firm said, “Yes, it usually happens. [The client’s] preferred vendor is going to get to see what the other vendors are bidding. The way this stuff is typically done is they put in requirements that they know you’re not going to be able to meet. You can tell with the way they write up some of these RFQs, they have a specific vendor in mind that they’re intending on dealing with, and they usually gear the RFQs towards these vendors.” [FTA#13]

- The non-Hispanic white male owner of a specialty construction firm stated that there is a lot of bid shopping that happens because of the economy. He stated that as a contractor you learn as you go. [FHWA#37]

The same business owner, regarding bid manipulation, reported that a prime contractor asked him to increase his quoted price simply so they could make more money from the client. He noted that he stopped working with that company because they were not being honest. [FHWA#37]

- The non-Hispanic white male owner of a specialty construction firm said, “I think [bid shopping and bid manipulation] happens. I know school districts that had some board members that were getting bribes and things. We’ve all read it in the paper.” [FHWA#18]
- The non-Hispanic white male representative of a general contracting company said that his firm has not experienced bid shopping in the public sector. [FHWA#41]

The same business representative reported that his firm has experienced bid shopping in the private sector, adding that “doing private work is not an open forum. It is not an open and honest process.” He added that owners in the private sector would tell a contractor or subcontractor “if you really want this job, you got to cut your price.” He also said, “[Private sector customers are] playing this game trying to drive the pricing down and eventually, go and give their favorite firm a last look and said, ‘Okay. Here is the best price down on the street. If you want to do the work, you got to beat that.’” [FHWA#41]

- In discussing bid shopping, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm reported that every bidder completes an “ethics document” as part of a bid; however, the document is not enforced. [FHWA#3]
- Regarding bid manipulation, the non-Hispanic white male owner of an SBE- DVBE-, and SDVOSB-certified consulting firm reported that he has experienced bid manipulation. He said, “You can read the scope of work and you know it’s written for a particular company. We’ll see some of those maybe six or more a year.” [FHWA#45a]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm stated, “I know one particular company [that] I’m positive they share my bid price with [my competitor] because they always use [the competitor].” She said, “I’m not even going to worry about it because I think they just shop my bid around.” [FHWA#22]

The same business owner added, “I just really do think that [bid shopping] exists. Everybody swears that it does not exist. I think that it does.” She said, “There’s so many unscrupulous things that people do.” [FHWA#22]

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm, regarding bid shopping or bid manipulation, responded, “Oh, yeah. Oh, hell yeah, it goes on in every job; that is why [prime contractors] do not name the [sub] contractors. They say, your bid has to be in by a certain date. You turn the bid in. They don’t name you; all they do is use your bid to shop your bid to go see if they can get a lower bid.” [FHWA#8]

The same business owner added, “And you say, ‘Well, what the hell’s going on?’ If the system’s going to be so unfair that when I turn my bid in, all I’m doing is giving the prime contractors a price to start at to go out and shop my bid, why bother?” [FHWA#8]

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said, “When you submit a bid to a prime, they change your bid. [This] happens a lot. When they send you back a contract, it is all different. The wording, the exclusions, the inclusions are all different. And they all do it.” [FHWA#10]
- The Hispanic American male representative of a construction-related firm commented that since DBE subcontractors are not listed by name on a bid, “Contractors then bid shop after bid opening, renegotiating itemized lump sum items and hourly rates with their favorite firm, usually a large firm with deep pockets or a small majority firm they have a relationship with.” [FHWA-WT#8]

The same business representative added, “the effect is to impede the DBE firm from acquiring work through a fair bidding process.” [FHWA-WT#8]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated he “only had a feeling” that he has experienced bid shopping, but he has nothing definitive to substantiate his claim. [FHWA#47]
- Regarding bid shopping, the non-Hispanic white male owner of an SBE-certified specialty contracting business said, “They try to chisel you down on your numbers, on your profit.” He added that he has not experienced bid manipulation. [FHWA#35]
- The Black American male owner of a DBE- and MBE-certified construction company reported that he was aware of bid manipulation. He said that many times they call for quotes and ask if he can do the job for a cheaper rate. [FHWA#60]

The same business owner also stated that while he was aware of bid manipulation, he was unaware of it ever happening to him. [FHWA#60]

Many interviewees reported that bid-manipulation and bid shopping are not prevalent. [e.g., FHWA#7, FHWA#12, FHWA#13, FHWA#16, FHWA#17, FHWA#19, FHWA#20, FHWA#23, FHWA#24, FHWA#25, FHWA#29, FHWA#31, FHWA#33, FHWA#34, FHWA#42, FHWA#46a, FHWA#49, FHWA#50, FHWA#51, FHWA#53, FHWA#58, FHWA#59, FHWA#61] For example:

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said, “It sounds like in the past we’ve had some situations with [bid manipulation, but] less so recently because [Caltrans posts] the post-bid files.” [FHWA#11]
- The Black American male owner of a specialty contracting business stated, “I’m sure that someone has done that before, but I don’t know an actual instance when it happened.” He said, “If someone else wants to do it cheaper than [me], then I know that they’re cutting corners somewhere or they’re just taking it out of their profit which I’m not willing to do.” [FHWA#27]

The same business owner when asked about bid manipulation said he has “never had anyone do that.” [FHWA#27]

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated, “I have not experienced bid shopping. I think that’s against the law in this state.” [FHWA#45a]

Some interviewees reported that bid shopping is part of doing business. For example:

- The non-Hispanic white male owner of an SBE-certified specialty consulting company said that they had only experienced bid shopping in the private sector. He said, “You know, in the private sector, [bid shopping] will happen, but that’s just part of the game you play.” [FHWA#29]

The same business owner added that, for his industry, there is no opportunity for bid shopping in the public sector because the discussion of prices [is] after a proposal is accepted. [FHWA#29]

Unfair treatment by prime contractors, agencies, and customers during performance of the work. Some business owners described their experiences with unfair treatment by contractors and customers during performance of work. For example:

- When asked if the firm has experienced any unfair treatment by prime contractors and agencies during performance of work or contract bidding the non-Hispanic white female owner of majority owned DBE-certified engineering firm, “I would say, more than anything, sometimes that DBE percentage is given to me like this is your fee and this is the scope. Sometimes I feel like I’m obligated to do what they tell me, scope wise for that fee. It’s more dictated than like, ‘Okay, we’d like you to do this scope.’ I have some clients that are more like, ‘We want you to do this scope. Can you give us the fee for that?’ I feel like that’s fairer unless they’re saying it’s for time and materials. ‘So, this is the fee and we’re going to give you this kind of work, time, and materials, till you get to that fee.’ That’s a little different than saying, ‘I want you to do this work for this fee,’ because they want just the DBE percentage. So, sometimes I end up spending more time and budget on a project and I feel like the fee that they’re giving me is not fair for that work that they’re asking me to do. I feel like I’m being taken advantage of a little bit but I do it just to keep that relationship because they are giving me work.” [FTA#6]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that he sometimes deals with scope creep when public agencies ask a contracted firm to do something above and beyond what is stated by the contract, but that in those situations he defaults to the contract language and tells them that they need to update or change the contract terms if they want his firm to handle additional or different work. He also stated that he has not experienced systemic problems with unfair treatment by agencies during performance of contracted work, although he has occasionally had isolated problems with individual agency employees in terms of personality conflicts and unfair treatment of his firm’s employees. [FTA#15]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that when his firm works on a contract, after the amount of the contract is used, the prime uses someone else to finish the work. “We’ll go out and [work] twice, and then [the prime will say that they are using someone else now] because we wrote you guys down for \$6,000 and we’ve exceeded a \$6,000 amount, now we’re going to use this local guy. They use us to meet the number and they send [us] along on [our] way.” [FHWA#10]
- The Black American male representative of a minority trade organization when asked if his organization’s members have ever reported unfair treatment regarding approval of work

answered, “Oh, absolutely. If there are problems on work performance, which happens, [prime contractors] try to hold back people’s money. That is why our organization is good to be in place. We combat some of these issues and I look at the overall situation — I never want to leave it unaddressed. We get [it] resolve[d].” [FHWA#52]

- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that his firm had a three-year project, and the prime stopped using them after the second year. He said, “I think they hit their DBE amount by the second year so we didn’t get any work the third year.” [FHWA#23]

The same business representative reported that a prime his firm was working for once persuaded an employee of his firm to quit and work for the prime. After that, the prime did not have any more work for the interviewee’s company. He said, “What do we do raise a stink? I mean, it’s not worth our time to really do anything.” [FHWA#23]

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated that he has experienced unfair treatment by contractors and said, “Usually it’s the construction contractors. [Prime contractors] are always trying to cheat and they do not want to pay your fees. I wish there was somebody I could call and say, ‘Look, they picked up those DVBEs and now they don’t want to pay.’” [FHWA#45a]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm reported, “We are on the bottom of the food chain. People don’t respect you a lot and you go to the job site and you know that people don’t talk nice to you. One time, my guy left the job. They disrespect you and yell at you. It happens a lot. Truckers are the bottom of the food chain. They pay you [less] per hour because they know they can get away with that. It can be very small, but we need that work.” [FHWA#54]
- The non-Hispanic white male representative of a general contracting firm reported that there are “periodic disputes between you and the [agency], but they’re just standard construction disputes; I have one opinion, they have another, but it’s not unusual.” [FHWA#26]
- The Black American male representative of a general contracting firm concurred saying “Yeah. Nothing systematic. It’s just case-by-case.” [FHWA#26a]
- When asked about unfair treatment by primes and customers during performance of work, the non-Hispanic white female owner of a DBE-certified consulting firm reported that she has worked with primes that “just will not keep you in the loop.” [FHWA#55]
- The Black American owner of a specialty contracting business reported that he experienced unfair treatment regarding the approval of work by a prime contractor. He said, “I did have a bad experience with a general [contractor].” He said the general contractor “questioned my square footage and my linear footage at the end of the project and tried to pay me a lot less. He ended up not paying me in full at the end of the project.” [FHWA#27]
- The Black American male owner of a DBE- and SBE-certified construction-related firm reported that on a Caltrans project, the need for his service was underestimated. He said that the supervisor told him that he was not doing the job right; however, a Caltrans inspector was watching, and “she came over and [told me not to] let these guys talk. [She saw that] they needed another [company] out here. She went and talked to them, and then

they finally got another [company] out there. [Prime contractors will] try to take advantage of you if you are a smaller company.” [FHWA#19]

- The non-Hispanic white male representative of a DBE-certified construction-related firm when asked about unfair treatment by primes during performance of work reported, “Yeah, in fact we have a situation going right now. It is not public, but private. We have a contractor that doesn’t want us to do our job, which in turn, puts lives at risk. Yelling and demanding is not good practice. So, we have had a couple of conversations with the company trying to straighten it out. I learned again this morning that we’re not being very successful. I think there needs to be a face to face at this time.” [FHWA#53]
- The non-Hispanic white male owner of a specialty contracting company stated that his firm was performing a job at a nationally known chain store, and he said, “It was probably my worst experience.” He said that the prime was “kind of a con [artist],” adding, “It was extremely long before I got paid.” [FHWA#51]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that she had experiences with unfair treatment by a prime on a job site where the prime accused her workers of wrongdoing. She said, “At almost every construction site, the prime, the trades always blame everybody else.” [FHWA#39a]

Many business owners reported little or no experience with unfair treatment by contractors and customers during performance of work. [e.g., FTA-AV#19, FHWA#7, FHWA#11, FHWA#21, FHWA#24, FHWA#25, FHWA#28, FHWA#30, FHWA#32, FHWA#33, FHWA#35, FHWA#37, FHWA#40, FHWA#42, FHWA#43, FHWA#44, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#58, FHWA#60, FHWA#61] For example:

- When asked if she has ever experienced unfair treatment by prime contractors, the non-Hispanic white female owner of a WBE-, SBE and DBE-certified specialty construction firm reported, “I don’t think they do it on purpose. I think it is just part of doing a project. I think there is a lot of hurry, hurry.” [FHWA#22]
- The non-Hispanic white male owner of a specialty contracting business when asked if he has ever experienced unfair treatment during the performance of the work reported that rudeness from customers is rare, but it does happen. He said that when it happens, “You need to be professional.” [FHWA#31]
- When asked about treatment by primes and customers during performance of work, the non-Hispanic white male owner of a concrete inspection agency stated that it has been very favorable. He noted that he knew of a few contractors who try to manipulate the code or the system without much regard for safety, which is his job’s main objective and responsibility. “So, there have been issues with a few of them... They just want to get the job done as cheaply as possible and don’t really care.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company noted that unfair treatment by primes and customers during performance of work happens sometimes but not so much when you are the lead. [FHWA#60]

Unfair treatment by prime contractors and agencies regarding approval of work.

Some business representatives experienced unfair treatment. [e.g., FTA#16, FHWA#19, FHWA#55] For example:

- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm explained his experience with unfair treatment by a prime contractor stating, “I would say my struggle with being a sub-consultant is much harder than my being a prime consultant because even though a lot of times prime consultants who are majority owned, they will use me because of our resume and for an on-call contract. As they do work on the project sometimes, we have overlap in the work we do so they may not actually include us in the project. That's been a struggle for us just because they will use our expertise and our team's expertise to win the job, but, when the actual job is ongoing, we don't get brought in to do the work.” [FTA#8]
- When asked about his experience with unfair treatment by prime contractors regarding approval of work, the Black American male owner of a telecommunications firm expressed his frustration that subcontractors can be unfairly blamed for dissatisfactory work outcomes. He stated, “This is another reason why I prefer to be the prime contractor. If things go wrong the prime contractor usually looks for somebody to blame and it rolls downhill. When you [are subcontracting], often times you often end up getting scapegoated.” [FTA#13]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm discussed his frustration with public agencies' use of past performance questionnaires in making contract awards. “[We send the questionnaire] to existing customers who will then answer the questions and send it into the [federal agency] to indicate how happy they are with our service essentially. To me that's challenging because we do send these questionnaires to our various points of contact but they have no incentive to help us win more contracts. They're busy doing their jobs and I think in most cases they'll never fill them out or send them in. So, when that part of the selection criteria says, ‘Hey, [if you] can't somehow convince your existing customers to fill out this form and send it to us, then it actually puts you in a disadvantage,’ it's unfair, particularly in our case because we have past performance in a database that the federal government has access to. They don't need to look at a questionnaire that somebody did or did not fill in, they can just simply run a report and see that we've gotten satisfactory or very good ratings on everything that we've done.” [FTA#15]
- Regarding unfair treatment of approval of work, the Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated he has not had a problem with a prime contractor approving his work. However, he said that he once had a problem with a city inspector who did not want to approve the work his company had performed. He noted that he had to contact the inspector's supervisor to resolve the matter. [FHWA#47]
- The non-Hispanic white male representative of a general contracting company reported that his firm experiences unfair treatment regarding approval of work in both the public and private sectors. He added that “many of the [public] agencies tend to be really fair if they have money in the bank and they've got plenty of contingency left, but when they're out of contingency all of a sudden the answer is no.” [FHWA#41]

- When asked about unfair treatment regarding approval of work, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported an issue “with a prime because they wouldn’t pay us. We sat down at the table, [I] brought a crap-load of documents [and explained how we had performed the work and they had signed it]. I don’t understand. You show me weeks later a job log. Your guys signed off on the project that everything was done the way it was supposed to, now you guys are coming back weeks later [and claiming it didn’t work right]. Well, I’m sorry, that [it] doesn’t work.” [FHWA#10]
- The non-Hispanic white male owner of a concrete inspection agency indicated that there have been times of unfair treatment regarding work approval by primes, but it is not often. [FHWA#59]

Others did not report experiencing unfair treatment by prime contractors or agencies regarding approval of work. [e.g., FHWA#11, FHWA#39a, FHWA#45a, FHWA#46a, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#58, FHWA#60]

Unfavorable work environment for minorities or women. Interviewees were asked about any experiences of unfavorable work environments for minorities or women.

A few interviewees reported experiences working in unfavorable environments for minorities or women. [e.g., FHWA#60] For example:

- When asked if the firm has any knowledge of unfavorable environments for women and minorities, the non-Hispanic white male co-owner of an engineering firm stated, “Unfortunately, yes.” He stated that he has seen female colleagues being treated differently than how he is treated. He went on to say, “I would see it where my partner asked me to come to [meetings at] the site, respond to contractors that [were being] mean to her. As a man, you won’t believe it until you see it happening. That sort of thing happened several times.” [FTA #11]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated that “it’s always a little bit tough [being a woman] working in the construction industry. It’s still [a] manly industry.” He said there is a “sexist attitude [from] the workers out there.” [FHWA#23]
- The Black American male owner of a DBE- and SBE-certified contracting firm said that he has experienced unfavorable work environments. He said that he gets “an impression that you are inferior. Although you are meeting the requirements of the job such as time, quality, [etc.], you get a letter saying that you need to have more men in the field from their opinion. Those things are a distraction because whereas you should be focusing on the advancement of the business, you’re focusing on the existence.” [FHWA#61]

Some interviewees reported no experience with unfavorable work environment for minorities or women. [e.g., FHWA-WT#34, FHWA#10, FHWA#20, FHWA#21, FHWA#27, FHWA#30, FHWA#38, FHWA#39a, FHWA#40, FHWA#42, FHWA#43, FHWA#44, FHWA#45a, FHWA#47, FHWA#48, FHWA#51] For example:

- The non-Hispanic white male representative of a general contracting firm stated that they “don’t tolerate” any unfavorable work environment for minorities or women. [FHWA#26]
- The non-Hispanic white male owner of a concrete inspection agency commented that “there are unfavorable work environments on certain jobs, but it’s not because of being a woman or minority.” [FHWA#59]

A few interviewees described methods of dealing with unfavorable work environments. For example:

- The Black American male representative of a minority trade organization stated that his organization encouraged its members to speak out about mistreatment telling them, “If you feel that the environment is unfavorable or not right, you have to say to us and speak up.” [FHWA#52]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm stated, “when I notice something like that, I just have to step over it. I am too busy to deal with that. Prejudice against race or gender, you can’t fight it.” [FHWA#50]

Any disadvantages for small businesses regarding these issues. Some interviewees indicated that some of the issues are because their businesses are small or exacerbated because they are small business owners.

- When asked if the firm has witnessed any disadvantages for small businesses the non-Hispanic white female representative of an engineering firm expressed, “Well, yeah because you need to have the capacity and the backing that sometimes a smaller business or minority business has to develop over years. To respond to some of those Caltrans RFQs or RFPs it’s pages and pages and research in order to complete them. So yeah, the larger firms that have more experience and more capacity are going to one-up those smaller ones. Due to all of those requirements the insurance, bonding, financing and all the things that cost some money and require capacity and a lot of experience makes it harder for the little guys to get in on that.” [FTA#4]
- The Black American female owner of a DVBE-certified transportation firm expressed difficulties for small-, minority-, woman-owned businesses. She said, “Well, it’s the same thing that’s been going on for years. For minority women in business, it seems like we have to prove ourselves. We have to work a little bit harder to be able to obtain the requirements that we need. In a study I read, it showed that there were some disparities between the lending practices that are out there because some people were getting loans and others weren’t. It also, depends on who you know and your relationship with bankers. It was a whole lot of variables that went along with it but as women in business, it’s already tough. I just learned that it really comes down relationships and that’s unfair because it should be qualifications. They should have to get to know me to do business know my qualifications and whether I meet the requirements. There shouldn’t be a whole lot of challenges but there is and I think that’s just with the world.” [FTA#18]
- The Hispanic American male owner of a specialty contracting business reported that large firms substitute contractors, other than those used on their bids, on projects. He said, “They

use a loophole in the rules to their advantage, and under the present government and agency the large contractors give lip service to the rules.” [FHWA-WT#35]

Any double standards for minority- or woman-owned firms when performing work.

Interviewees discussed whether there were double standards for minority- and woman-owned businesses.

Many business owners and representatives reported double standards based on race, ethnicity, or gender. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported a double standard for DBE certified firms. Prime contractors use DBE’s to meet contract goals, then say, “We’ve met that goal with her, now we can get we can get who we really want to get.” [FHWA#10]
- Regarding double standards, the Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm stated, “Maybe sometimes. If they see they can take advantage of you, especially the Project Manager, they will. If they perform professionally then it will not happen.” [FHWA#50]
- Regarding double standards, the Black American male representative of a minority trade organization commented, “I see women never treated right. They [are] just like Blacks; they [are] never treated right, in my opinion.” [FHWA#52]
- The Black American male owner of a DBE- and SBE-certified contracting firm when asked if there are double standards for minority- or woman-owned firms when performing work responded, “Yes, we’re going to go through a scrutiny. [The agency] may see you as being inferior because you do not have 10 trucks pulling up when a job really requires one. You do not have ten people to bring to the site, when you only really need five. So, you end up being scrutinized because you’re lean and not showy.” [FHWA#61]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported her experience with double standards for women. She reported that they exist in handrail approval. She said, “We used to always laugh that it was fine as long as the guys were out there. As long as [clients] thought the whole shop was being run by men.” She said, “Whether that handrail is signed off or not is [not] determined by whether I’m a female or not.” [FHWA#22]
- The Native American male owner of a DVBE-certified transportation firm commented, “the only problem I see is with the DVBE. The DBE has an 8A program that is unfair for the DVBE. They should be able to have that type of help when they get started too. Like I would have enjoyed having an 8A program for Disabled Veterans because that would have helped me to grow. You’re just given contracts.” [FHWA#57]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm when asked about double standards for minority- or women-owned firms responded, “people say the best minority is to be black and be a veteran.” [FHWA#54]

- The Hispanic American female owner of an MBE-certified specialty services firm indicated that she has experienced double standards, saying that the primary issue is that as a woman-owned business she must work harder to prove itself. [FHWA#5]
- The non-Hispanic white female representative of a general contracting company stated that she experiences double standards as a woman working in the construction industry. She said some people are a “little bit tepid until they understand that I know more than they do [about construction].” [FHWA#43]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business when asked about any double standards for minority- or woman-owned firms stated, “I guess the double standard would be not getting the work. And I can’t document it, but I know that there’s a lot of behind-door dealings that go on.” [FHWA#24]
- When asked if she ever experienced double standards for minority- or women-owned firms when performing work, the non-Hispanic white female owner of a DBE-certified consulting firm responded, “Yes, but it’s usually subtle. It’s not usually blatant.” [FHWA#55]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company reported, “When we first started, we had to prove every step of the way we had the ability to do the work.” [FHWA#46a]
- The Black American male owner of a DBE- and MBE-certified construction company indicated that some people don’t think that minority- or woman-owned firms are qualified to perform the work. [FHWA#60]

Other business owners did not report that double standards exist. [e.g., FHWA#11, FHWA#12, FHWA#25, FHWA#26, FHWA#27, FHWA#30, FHWA#38, FHWA#39a, FHWA#40, FHWA#42, FHWA#44, FHWA#47, FHWA#48, FHWA#49, FHWA#51, FHWA#53, FHWA#56, FHWA#58, FHWA#59]

Some interviewees reported that double standards exist for non-minority and non-woman-owned businesses. For example:

- When asked if the firm has witnessed or experienced race and or gender-based discrimination the non-Hispanic white male owner of an SBE-certified consulting firm stated, “Where I see discrimination is where you’ll have companies pop up that are DBE and the only reason, they’re able to exist is because they had that qualification. And so, this may not be politically correct, but there is some percentage of DBE businesses that are able to get work without doing quality work. Everybody knows who the problem step-children are, some [general contractors] will list the problem subs on their bid. But then, there are various tricks they can use to limit their involvement and to limit the problems that come with that sub or supplier.” [FTA#1]
- When asked about what types of things general contractors do to limit DBE involvement, the non-Hispanic white male owner said, “Oh, you can change the scope of their work, you can find them at fault for not getting their submittals in on time, it’s kind of a mix of pushing them around. They’re usually not well-managed businesses to begin with and they usually don’t have real knowledgeable people in them. They’re businesses that tend not to be not what we thought. I don’t know how to describe it.” [FTA#1]

- The non-Hispanic white male owner of an SBE-certified specialty contracting business said that he has noticed double standards for minority- and woman-owned firms and feels it is harder for his firm to obtain work because it is not DBE-certified. He said, “I feel like the white man is the minority out there.” He added, “The biggest problem is that I’m not a minority. I’m a white boy and that seems to be the downfall.” [FHWA#35]
- The non-Hispanic white male representative of a general contracting company when asked if there are any double standards for minority- or woman-owned firms when performing work said that his firm is held to a higher standard than minority- and woman-owned businesses. He said, “We show up for work ready to go and [minority and disadvantaged businesses] are discombobulated, and the owner gives them a lot more grace than they give to us.” [FHWA#41]

G. Insights Regarding any Race-/Ethnicity- or Gender-based Discrimination

The study team asked interviewees about whether they experienced or were aware of other potential forms of discrimination affecting minorities or women, or minority- and woman-owned businesses. This part of Appendix D examines their discussions of:

- Any stereotypical attitudes about minorities or women (or MBE/WBE/DBEs) or reports of discrimination;
- Any “good ol’ boy” network or other closed networks;
- Any allegations of unfavorable treatment based on race/ethnicity or gender;
- Reports of sexual harassment;
- Reports that the interviewee had not observed race-/ethnicity- or gender-related discrimination; and
- Factors that affect opportunities for minorities and women to enter and advance in the industry.

Any stereotypical attitudes about minorities or women (or MBE/WBE/DBEs) or reports of discrimination. A number of interviewees reported stereotypes that negatively affected minority- and woman-owned firms. [e.g., FTA#16, FHWA#22, FHWA#43, FHWA#50, FHWA#52, FHWA#60] For example:

- When asked if the company has experienced any stereotypical attitudes about small, minority-, or woman-owned businesses the Hispanic American male owner of a parking facility stated, “I’m still a small company, I’m not a huge corporation; they [a parking garage facility] thought giving me a nine-story garage would be too much and I would not be capable of handling it, even though I had shown for over a year that I was capable. If I was capable of implementing a whole new parking program with no parking whatsoever do you think I would not be able to handle a nine-story garage where I have all these 500 spaces? So, I guess that’s part of the business when it comes down to some of these owners in the private sector. I don’t have a huge office in downtown L.A. or I haven’t been in the business for over 50 years that they might think that I’m not capable of handling an operation like

that. I've been in the business for only ten years, but I've always kept track of what's going on and all the new trends that are coming into the parking industry." [FTA#3]

- When asked if the firm has experienced any stereotypical attitudes about or towards minorities or women owned business enterprises the non-Hispanic white female representative of an engineering firm stated, "Definitely we had talked with that cultural department of Caltrans when we worked on this huge highway project. We had talked with them about some sensitivity training and just getting them to learn and understand the different cultural nuances of dealing with all of the culturally important things. I mean I think for the most part is they [Caltrans] were pretty open, but there are some personalities that were more difficult to deal with." [FTA#4]
- The Black American male owner of a DBE- and SBE-certified contracting firm commented that he has experienced an agency staffer that shunned him while picking up plans for a project. In the exchange, the staffer gestured to him in a manner that expressed a preconceived opinion of his capabilities. He added that the staffer gave him the wrong plans to deter his intentions of bidding. [FHWA#61]
- The Black American female owner of a DBE- and SLBE-certified construction-related business said, "As a woman, I still face stereotypes." She added that she is asked questions like, "What are you doing out here?" "Where is your husband?" or "How come you are not home with your kids?" [FHWA#48]
- The Black American female owner of a new construction-related business stated that she has encountered stereotypical attitudes about women and minorities. She said, "Even in my time working [at my previous firm], going into meetings a lot of people did not take me serious until I made them. In six months, I got them over \$100,000 in contracts. So, this is what I love, and that's the way I shut them down, shut [them] up." [FHWA#2]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business when asked about stereotypical attitudes about minorities or women reported, "The mentality is that the minority or women aren't capable. And that's where we have to prove that we can walk the walk and talk the talk." [FHWA#24]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that "one of the project managers from [a large prime contractor] told me once [that] the only reason [that contractor was using us] is because [they] have to. That's it, flat out." [FHWA#10]
- Regarding stereotypical attitudes, the same business owner added that he commonly encounters "the normal [stereotypical attitudes]. Run-of-the-mill ones that have been going on for years. You get the jokes every now and then 'Is the concrete [guy going to be on] time today?'" [FHWA#10]
- A female owner of a certified specialty service firm remarked that primes' and agencies' perceptions of DBE- and SBE-certified firms needs to change. She said, "We still walk into a room and they think that we woke up yesterday and decided we were going to start a business. They are not [seeing] that we are professionals." [FHWA-PF#9]

The same business owner added, "in terms of skill set, we are on a level playing field. In terms of opportunities it's still very unequal." [FHWA-PF#9]

- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm reported that he has seen stereotypical attitudes about women in the construction industry. He said, “Nothing’s really changed.” He said, “You can tell [some men] just don’t have the respect [for women].” [FHWA#23]
- The non-Hispanic white female owner of a DBE-certified consulting firm stated that she has experienced unfavorable treatment by a public agency based on gender. She explained, “Yes, I have had experiences. They are mostly when I dealt with men. Going in front of a board of supervisors or political body where they prefer not to have a woman especially with — I’ll be biased myself — older men, saying what needs to be done or giving them the answer to a question. It is okay if a man will say the same thing to them. But if a woman says it in the nicest possible way, they don’t like that.” [FHWA#55]

The same business owner added, “When I first started out, I experienced stereotypical attitudes.” She said, “It was, ‘oh, well let’s just put you on the team because you’re one of those women owned businesses and we need the extra points.’ Now, it is much less than that. It is more, ‘We’re hiring you because you have a reputation that’ll get us the contract.’” [FHWA#55]
- The Black American male owner of an MBE-certified trucking firm stated that he sees stereotypical attitudes about minorities “all the time.” [FHWA#25]
- When asked if there are any stereotypical attitudes about minorities or women, the Black American male owner of a DBE- and SBE-certified construction-related firm responded that there are “100 percent.” He added, “There is nothing that is in your face out there, but [there are] people that talk big and if you have friends, then you know what people are saying behind closed doors or when you are not around.” He commented, “there is always going to be that challenge. This is just part of life and overcoming whatever it is, whatever obstacles you got.” [FHWA#19]
- The non-Hispanic white male owner of a concrete inspection agency commented, “There are people who are racist and if you’re not of their ethnic background, then yes, you will be treated differently no matter who you are.” [FHWA#59]

Some business owners reported no recent experience with stereotypical attitudes about minorities or women (or MBE/WBE/DBEs). [e.g., FHWA#28, FHWA#30, FHWA#39a, FHWA#40, FHWA#41, FHWA#42, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#56, FHWA#58]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm commented, “No, I haven’t had any unfavorable treatment. It’s much better than it was when I got in the business back in [the late 1970s]. It was obvious then, but not now. I don’t see it.” [FHWA#38]

Any “good ol’ boy” network or other closed networks. There were many comments reporting the existence of a “good ol’ boy” network or other closed networks. [e.g., FHWA#14, FHWA#19, FHWA#22, FHWA#32, FHWA#38, FHWA#39b, FHWA#45a, FHWA#52, FHWA#53, FHWA#54, FHWA#57, FHWA#58] For example:

- The non-Hispanic white male owner of an SBE-certified engineering firm stated of the good ol' boy networks, "[Larger firms] basically have their own circle of companies that they work with and as part of their team, and therefore you're simply excluded. It doesn't make any difference how many times you approach, you would not be able to get in there." [FTA#10]
- The representative of an MBE-certified transportation services firm stated that she had witnessed the operation of closed networks or "good ol' boy" networks in her industry, but that she did not perceive the existence of those networks to have a detrimental effect on her firm's ability to obtain or perform work. [FTA#12]
- When asked about "good ol' boy" networks, a non-Hispanic white male owner of a specialty construction firm stated that he was not aware of anything official. He added that "maybe back in the day there may have been more [closed networks], but sometimes you're just comfortable working with who you know." He reported that, especially in his industry, which is "all I know about you just get comfortable with your team." [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm when asked if she ever encounters any "good ol' boy" or other closed networks, responded, "Yes. I have experienced the network with every supervisor, every county commission, city council, I have ever worked. Yes, especially in rural areas, the closed networks exist." [FHWA#55]
- Regarding the existence of "good ol' boy" networks, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, "Oh yeah, every day in this business we send out probably 100 bids a week and we get maybe one [job] out of 500. It is because we are a minority more than likely. It is because it is a threat, I think, for [many] general contractors that's why they really put so much emphasis on the good faith effort because the good faith effort acts like a shield. [The prime can say they've] crossed all the T's and dotted all the I's [and] contacted everyone on this thing and none of them are qualified to do the work. It's [unfair]." [FHWA#10]

The same business owner commented, "It's still good ol' boy's network, and that's the toughest thing and if there isn't someone standing over these guys saying that (they) have to make sure you include everybody in this deal they're not going to do it. I mean, they just won't." [FHWA#10]

- The non-Hispanic white male owner of an engineering firm explained, "One of the struggles is getting your foot in the door with Caltrans, even if you have recent of current experience with the department." [FHWA-AV#22]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported being unsure whether closed networks have affected his firm or not. He said, "Sometimes we feel that we don't know what's going on because [when we go] back to the post-bid file [we see that] the second or third or fourth bidder out lists us as far as doing the work, but why didn't the low bidder list us? Sometimes we have never done work with a contractor. [It's usually tied into the good faith efforts] where they never even contacted us, even though [we had] opted in with the contract. We don't understand." [FHWA#11]
- The Black American female owner of a DBE- and SLBE-certified construction-related business commented, "[Closed networks are] prevalent here in Southern California. That is

how it is apparently. There's [a] good old boy's network. You don't get in unless you know somebody or somebody refers [you]." [FHWA#48]

- The non-Hispanic white male owners of a consulting-related firm said, "The bid process tends to favor the incumbent. It's hard for a small business to meet requirements, so there is low chance for success." [FHWA-AV#23]
- When asked if she has seen any indication of "good ol' boy" or closed networks, the non-Hispanic white female owner of a WBE-certified specialty construction firm stated, "I don't see it because I mind my own business. I am way out here and do not have to put up with it. I think it still goes on." [FHWA#7]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company said, "I think at some point, they're only closed because the blood stays in there too long and people get too reliant on, 'I trust this guy.'" [FHWA#17]
- When asked if he has experienced a "good ol' boy" network, the Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated it "is still around definitely." When he attends events, he sees members of a "good ol' boy" network "having drinks off to the side [and] having their conversations." He said, "It's [harder to] network with these guys because they've been doing this for 50 years and they're set in their ways." [FHWA#23]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm when asked if she has ever experienced a "good ol' boy" network stated, "I felt that in the beginning. I felt that because I was a woman, they were not giving me opportunities, but not so much now. I do not see that so much now because my guys do end up being the main guys that they contact. They're not dealing with me, so I think that makes a difference." [FHWA#13]
- The Black American male owner of an MBE-certified trucking firm indicated that the "good ol' boy" network is "very much" alive. He said, "You've got to be better than the "good 'ol boys" so they have to hire you." He said, "You really have to be good at what you do." [FHWA#25]
- The non-Hispanic white male owner of an architecture-related consulting firm indicated that he is unaware of any "good ol' boy" network in San Francisco, but noted that there are such networks in other areas. He said, "in Bishop, somebody would say [that] there's a total "good ol' boy" network. In fact, it is completely dominated by three landscape architects and two contractors that get all the work. Which is actually true." [FHWA#30]
- When asked about "closed networks," the female representative of a CUCP WBE-certified specialty construction firm reported that they encounter this issue; and, it exists in many industries, such as petroleum and construction. When asked how they deal with closed networks she responded, "We haven't been able to." [FHWA#16]
- The non-Hispanic white female representative of a general contracting company said, "There's always a good ol' boy network. [The construction industry] is word of mouth, who you know and there is a little arm twisting in some of that." [FHWA#43]

- The Black American male owner of a DBE- and MBE-certified construction company reported that he was aware of the existence of “good ol’ boy” networks but that he has not run into any difficulties because of them. [FHWA#60]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm stated that despite improvements and transparency in the Metro bidding process, the “good old boy network” still exists within Metro and the other agencies. He added, “Everybody knows it happens.” [LAM#1]

Some firms report being members of a “good ol’ boy” network or finding them helpful to business. For example:

- The non-Hispanic white female owner of an SBE-certified specialty consulting company when asked if there is a “good ol’ boy” network said, “I consider myself a part of it.” [FHWA#20]
- Regarding the existence of “good ol’ boy” or other networks, the Hispanic American male owner of a specialty contracting business reported, “I find it hard to be that victim, to be honest with you. I think that there’s a place for relationships in this industry and sometimes you’re on the right side of that, and sometimes you’re on the wrong side of it, and it is what it is.” He said, “I think that when people develop a sense of comfort working with a particular sub because they’ve had a previous pleasant experience, I think it validates a desire for them to work with that company.” [FHWA#9]
- The non-Hispanic white male representative of a general contracting company when asked if there are any “good ol’ boy” networks or other closed networks said, “I don’t think so because we have become the good ol’ boy network was definitely there thirty-five years ago in a lot of different ways. But now, with non-collusion laws and so many other like just the straight competitive in our industry now, there’s not a lot of discussion like that.” [FHWA#41]

Some interviewees indicated that closed networks are unavoidable. For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that while “[closed] networks” exist, she does not agree with the mindset of certain women that feel like they are “owed” the business. “There should be no entitlements, other than being paid.” [FHWA#3]
- The Native American male owner of a DBE-certified construction-related firm said, “that does exist and unfortunately. I don’t care how hard you try to restrict that [good ol’ boy network], it’s going to happen.” [FHWA#49]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that many times what may appear to be “good ol’ boy” networks are actually close personal relationships. [FHWA#47]
- Regarding closed network, the non-Hispanic white male owner of an SBE-certified consulting company said, “It’s my understanding that is how everything operates.” He added, “The more I learn I see how it works. That is not to say that women and minorities cannot be part of that good ol’ boy network. They seem to be as well. It is about who you

know. You don't have to be an old boy to be part of this." He went on to say that "there is that network of who you know handing out work and it's not necessarily old white men." [FHWA#44]

- The Black American female owner of a new construction-related business stated that she has seen closed networks in her field, "What it is, is that [firm owners] know each other, they've been dealing with each other, they go play golf with each other, you know." She added that closed networks are less of a problem in the public sector saying, "Caltrans, they make it pretty fair, you know with just even helping us, you know minorities." [FHWA#2]
- When asked if he has experienced any "good ol' boy" or other closed networks, the Black American male owner of a DBE- and SBE-certified contracting firm responded, "I see there are strong relationships in [the construction] business where people do things because they know you. You're going to do [helpful things] for your friend for whatever reason." [FHWA#61]

Some interviewees reported having never encountered closed networks or thinking that closed networks are becoming less pervasive. [e.g., FHWA#5, FHWA#18, FHWA#33, FHWA#40, FHWA#42, FHWA#46a, FHWA#51, FHWA#59] For example:

- The Black American male representative of a general contracting firm when asked about any experiences with a "good ol' boy" networks indicated that his firm does not see that. He said, "There's just a lot of pressure to be a professional contractor. I think our people are mostly focused on operating within the law and making money for our shareholders." [FHWA#26a]
- The Black American male owner of a specialty contracting business said, "Sometimes I get the feeling [that] there's kind of a "good 'ol boy" type situation, but I think that the older that I get, the less I've seen it and the less I've noticed it." He said, "I haven't really noticed anything firsthand, but it's definitely a possibility." [FHWA#27]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm commented, "I am a younger female in this large construction business. I think that the good old boy is going on but going out. It is not as prominent as it once was." [FHWA#56]
- The non-Hispanic white male owner of an SBE-certified specialty contracting business stated, "I don't know the good 'ol boy treatment applies to me." He said, "My reputation is what I live on. I'm not hired back because I'm a good 'ol boy. I'm hired back because my abilities." [FHWA#35]
- The Asian American male manager of an international architectural, planning, and engineering services firm responded, "There is some degree of [closed networking], but we haven't experienced it directly. There is a difference between knowing people and knowing active players in the marketplace versus the 'Good Ol' Boy" network, which I don't think it exists as it did in the past." [LAM#12]

Any allegations of unfavorable treatment based on race/ethnicity or gender. Some interviewees had comments related to topics not discussed above. For example:

- The Black American male owner of a DBE- and SBE-certified contracting firm reported unfavorable treatment by a public agency that may have been racially motivated. He explained, “We had a contract and we were solicited by the agency to complete some additional work that would have cost [the agency] a lot more money to formally bid. I said ‘fine, we’ll do it.’” He added, “[When] time came for us to do the work, the agency decided that they would have another contractor come in and do the work. They had the other contractor in the same yard where we’re doing our work. This other contractor was invited to informally come in and take the additional work performing the same function that we were doing. I mean, I can’t specifically say it was race, but I wouldn’t rule that out, what else could that be?” [FHWA#61]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm reported, “You see very few Black firms or Black engineers.” [FHWA#50]
- The male representative of a public sector agency commented, “when it comes to race and gender discrimination, I feel like in this day and age it’s a little bit harder to pinpoint, in the sense that in the past we had more blatant discrimination.” [FHWA-PF#4]

The same representative of a public sector agency added, “I think it’s subtler and there’s more structural racism, whether it be through the contractors or consultant or the agency itself that lend to barriers.” [FHWA-PF#4]

He added, “These days we have a lot of bias. So just by looking at somebody based on their race and/or gender, there’s certain things that we might perceive about them that might be negative. We might treat them differently based on those preconceived notions.” He remarked, “And it can cut both ways. Minorities can do it to other minorities or white people as well.” [FHWA-PF#4]

- The male owner of a DBE-certified specialty supply firm reported unfair practices in public works projects saying, “When [primes] usually reach out towards [us], the DBE, they are asking us what’s our race. I think, it obviously doesn’t need to be disclosed. Once it’s entered into a database, they can figure out what your race is.” [FHWA-PF#11]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that he has not personally witnessed any unfavorable treatment but noted that he has overheard sexist and racist comments in the field when visiting construction sites. [FHWA#44]
- The Hispanic American female owner of a specialty construction firm reported that sex discrimination is alive. She explained, “My industry is a male dominated industry and there are sometimes, you know, people want to talk. They have questions about my product; they want to talk to somebody else because I am a woman. Yes. They say ‘I want to talk to somebody the owner,’ and well, I am the owner. ‘I want to talk to the other owner,’ or like, ‘Whatever owner.’ It doesn’t happen very often though.” [FHWA#58]
- The Subcontinent Asian American male owner of a DBE- and MBE-certified engineering firm reported subtle discrimination. He commented, “and when we talk about the DBE and MBE, I don’t see it as outright discrimination, but it’s very, very, subtle.” [FHWA-PF#15]

The same business owner added that he had to change the name of his firm in hopes of getting prime opportunities. He commented, “it is very hard to get prime work for — especially rural areas.” He added, “I thought, this is not right so we change our company

name and hire [non-Hispanic white] engineers to be my employee manager and we started to get quite a few prime jobs in the rural areas. So that tell me something.” [FHWA-PF#15]

- The minority owner of a DBE-certified communications related firm commented, “I do feel treated unfairly at times based on my race or ethnicity, however when one has been subjected to this form of behavior for so long a person becomes numb to things.” [FHWA-WT#27]
- The Black American male owner of a DBE-certified construction-related firm remarked that his firm was UDBE-certified and then changed to DBE-certified. He said, “The majority of primes are unwilling to work with minority firms (especially African American firms) unless there is a major incentive.” Therefore, he suggested that in order “to rectify this anomaly would be to bring back race conscious goals.” He added, “This is an industry that is plagued with historical discrimination.” [FHWA-WT#28]
- The Subcontinent Asian American male owner of a DBE-certified engineering and construction-related firm reported that in the design realm he has no experience with disparity; however, in the construction management arena he indicated, “We are typically passed over in favor of non-DBE firms.” [FHWA-WT#16]
- The female owner of a DBE-certified construction-related firm reported if her firm is subject to unfair treatment due to race, ethnicity, or gender, it is not obvious due to a lack of government transparency. [FHWA-WT#17]
- The Subcontinent Asian American representative of a minority woman-owned DBE-certified supply firm indicated that she is aware of allegations of discriminatory treatment. However, she noted, “I would say yes I’m aware of it and I’ve had people that I now consider friends in the business accused of it. The construction industry that I work, doing work for larger firms they definitely have to be careful with what they’re saying when it comes to allegations towards other people.” [FHWA#56]
- The female owner of a DBE-certified construction-related firm commented, “I have used the DBE and was low [bid] on the job [and] you still gave it away to the male contractor.” [FHWA-WT#18]

The same female business owner remarked, “When I am looking for work, I just say [that] I am an assistant, not the owner. I get more work that way.” [FHWA-WT#18]

- The non-Hispanic white male business representative indicated that he is “a minority group in California. I have a disadvantage on bidding on contracts because my company is not ‘minority- or women-owned’ so this is discrimination.” [FHWA-WT#20]
- A representative of a specialty supply firm reported, “Caltrans is still [discriminating against] African Americans there has not been an increase in opportunity.” [FHWA-WT#21]
- The Subcontinent Asian American owner of a DBE-certified engineering firm reported that he had an issue of discrimination in the public sector however not by Caltrans. He said, “They discriminate. It happened in [the early 2010’s] when I had a project with the Department of Boating and Waterways. [They did] not want to pay me. [They told me to file] bankruptcy. [I stopped performing the work because they were] not paying me.” He

said that he had to hire an attorney and after [more than a year he] was able to win the case. [FHWA#12]

The same business owner noted that he felt discriminated against by the City of Sacramento. He said that he was not paid. He took this case to court, and it is still pending. He said that after [more than a year], he has not received “a single penny on that project from the City of Sacramento.” [FHWA#12]

- The non-Hispanic white male owner of an architecture-related consulting firm reported no knowledge of unfavorable treatment that may be racial/ethnic or gender-based but stated that architecture in general is “not diverse at all.” [FHWA#30]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported several experiences of unfair treatment from Placer County. She said that there were two jobs where she lost significant amounts of money. She said that she was informed, “That’s what Placer County does to everyone.” She said, “It was incredibly frustrating [and] in the end, I finished my part of the project and refused to do any more change orders and they asked that I be removed from the job.” She indicated, “I reported them to the Feds. I don’t think anything was ever followed up on.” [FHWA#22]
- The non-Hispanic white female representative of a general contracting company said that she has experienced unfavorable treatment that may have been gender-based. She explained that she is responsible for directing her subcontractors and that there have been instances on projects where she was not taken seriously because she is a woman. She stated that once subcontractors understand that she knows what she is doing, the gender-based issues usually go away. [FHWA#43]
- The non-Hispanic white male owner of a concrete inspection agency stated that he has experienced unfavorable treatment that may be racial/ethnic-based. He said that “with some contractors, they prefer to work with their own kind and where I’ve sent someone that’s not from their background, they’re treated a little more harshly.” He added that sometimes when working with a Hispanic contractor, “if you can’t speak Spanish you can’t communicate with these guys. And so that’s an issue.” [FHWA#59]

Reports of sexual harassment. One business owner reported experiencing sexual harassment:

- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm said sexual harassment exists. She reported, “I’ve only had one event where I’ve ever felt uncomfortable, and I immediately told my general contractor.” She said that an inspector touched her and told her a very inappropriate joke. She said, “I did not like the touching.” [FHWA#22]

Reports that the interviewee had not observed any additional race-/ethnicity- or gender-related discrimination. Some interviewees reported that they had not observed any discriminatory practices against minority- or woman-owned firms. [e.g., FHWA-WT#1, FHWA#11, FHWA#23, FHWA#31, FHWA#38, FHWA#39b, FHWA#40, FHWA#41, FHWA#42, FHWA#45a, FHWA#47, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#59, FHWA#60, FHWA#61] For example:

- The female owner of a DBE-certified small business, regarding race or gender-related discrimination, commented, “It is always a pleasure doing business in California, not once have I felt discriminated against in anyway.” [FHWA-WT#10]
- The non-Hispanic white male owner of a specialty construction firm stated that in California he has not seen any discriminatory treatment. [FHWA#37]
- A Subcontinent Asian American male representative of a construction-related firm reported that Caltrans “treated me with absolute impartiality, no discrimination professional behavior and 100 percent respect.” [FHWA-WT#22]
- The Black American male owner of a specialty contracting business when asked about unfavorable treatment that may have a racial or ethnic basis said, “Generally, I’m a pretty positive person. So even if something did happen, I might not have noticed it.” He said, “You never know what goes on behind closed doors when you leave. I could have bid a job and not gotten it because I’m minority, but I would never know.” [FHWA#27]

Factors that affect opportunities for minorities and women to enter and advance in the industry. A number of business owners and representatives discussed various factors that affect entrance and advancement in the industry for minorities and women. For example:

- When asked about disadvantages or barriers faced by minority-owned firms, the Black American male owner of a telecommunications firm indicated that becoming established as a business is more difficult for minority business owners. He said, “The disadvantage for the minorities is that you don’t get to start from the same starting line. There’s not a lot of obstacles for minority versus non-minority once you get established, but getting established is tougher because you don’t have the resources available to you. Usually finance is a very tough thing.” [FTA#13]
- Regarding any factors that affect opportunities for minorities or women to enter or advance in the industry, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said, “The bottom line is, once you fall into that DBE/MBE category I think for the general contractors, especially for the bigger primes, it’s a real hold-your-nose moment.” He added, “they’re going to hold their nose because [they have the attitude that they] have to have you because [the State is] making [them] use you guys.” [FHWA#10]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm stated that a lack of relationships affects opportunities for minorities and women entering and advancing in the industry. He said, “the thing is you don’t know people.” [FHWA#54]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that access to capital is the biggest factor that affects opportunities for minorities and women to enter and advance in the industry. [FHWA#47]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm commented, “A lot of these larger corporations have men in power; thus, they want to work with a man that has the same power.” She added, “When they walk into a room, some of these guys don’t speak because they don’t even want to work with women in business because they don’t feel that they’re on the same level. This attitude impedes progress and advancement in the industry.” [FHWA#56]
- The Native American male owner of a DVBE-certified transportation firm commented that the most important factor affecting the ability of minorities and women to enter and advance in the industry is credit. He added that other factors depend on “what you’re doing because there are all types of limitations.” [FHWA#57]
- The Black American male owner of a DBE- and SBE-certified contracting firm said, “Minority or women businesses may not be exposed to the right opportunity. If they are exposed, they really do not have the work experience to do the work. We have one example here locally. A contractor was given a very low contract and he did not really have the on-hand experience to perform. So, he was made to be an example of why we don’t give DBE and minority contractors these kinds of jobs.” [FHWA#61]

The same business owner said, “When it comes to executing the job, whether it’s directly for the agency or as a sub, you have to have the experience. You have to have it--or you won’t make it.” [FHWA#61]

- The non-Hispanic white male representative of a general contracting firm reported that the recent trend towards more “mega projects” has an impact on opportunities for minorities and women to enter and advance in the industry. He said, “It seems like municipalities are kind of getting away from this kind of standard short paving jobs and going to the much more complex jobs so that could be an issue for smaller companies. And that’s an issue for smaller companies regardless if they’re disadvantaged or not.” [FHWA#26]
- The Hispanic American female owner of a specialty construction firm commented that the factors that affect opportunities for minorities and women entering and advancing in the industry are individual’s “preconceived opinions about who is the better fit for our industry, meaning a male versus a female. As a woman owned company, you have to get beyond gender.” [FHWA#58]
- The non-Hispanic white female owner of a DBE-certified consulting firm commented that “figuring out where to go and figuring out how to get your foot in the door” are challenges that can prevent minorities and women from entering or advancing in her firm’s industry. [FHWA#39a]
- The non-Hispanic white male representative of a DBE-certified consulting firm remarked “it is a male-driven industry.” [FHWA#39b]
- The non-Hispanic white female representative of a general contracting company stated that she thinks one factor that affects opportunities for minorities and women to enter and advance in the industry is access to capital. She said that a firm in her industry must be able

to carry a job up to six months due to the turnaround in payments, which is particularly difficult for small minority- and woman-owned businesses because obtaining credit and financing can be harder for such firms. [FHWA#43]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm commented that there are factors that affect opportunities for minorities and women entering and advancing in the industry. She said, “It’s the kick off. It is the bonding and the money in the beginning.” [FHWA#38]
- When asked about factors that affect opportunities for minorities to enter and advance in the industry, the Black American male owner of an MBE-certified trucking firm stated, “When you come on a job, you have to act like you’ve got at least a little common sense.” He added, “To get into this field, you’re going to have to invest if you go out and purchase some mess quality of vehicle to help you run your business you may not get any work at all. So, if you are a minority, you really do need to count the cost before starting the business.” [FHWA#25]
- The non-Hispanic white male owner of an engineering firm stated that he does not believe that minorities and women have many disadvantages. He said, “I think they have all the advantages. I don’t think anybody has excuses anymore.” [FHWA#42]
- The non-Hispanic white male owner of a specialty contracting company said, “I haven’t witnessed [any factors that affect opportunities for minorities and women to enter and advance in the industry].” He added, “The biggest thing is if you can do the job, I don’t think they care who you are.” [FHWA#51]
- The Native American male owner of a DBE-certified construction-related firm when asked if there are factors that affect opportunities for minorities and women to enter and advance in the industry said that he has observed that there are only a few women in his industry. He added, “It’s not a discriminatory factor, but how the industry is set-up.” [FHWA#49]
- When asked about factors that affect opportunities for minorities and women to enter and advance in the industry, the non-Hispanic white male representative of a general contracting company stated that difficulty with obtaining bonding is the biggest factor. [FHWA#41]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that sexism is the main factor that affected opportunities for women to enter and advance in the industry but that there is less of it today. She noted, “[Women in the industry are] so generally accepted because there’s so many of us out there now.” [FHWA#55]
- Speaking of factors that affect his firm’s ability to advance in the industry, the non-Hispanic white male representative of a DBE- and MBE-certified specialty contracting company said, “You know, you really cannot compete with the firm that has been around 50-60 years because they have the reputation, they have the manpower and they have the financial backing to do it.” [FHWA#46b]
- The non-Hispanic white male owner of a concrete inspection agency commented that a factor that could affect opportunities for minorities and women in the industry is that they have less practical experience when entering the field. He said, “Well, if they’ve gone through school that’s not a college, it’s a trade school or a school that teaches you how to

pass the test. [They're] what we'd say are book smart, they don't use common sense. They're clueless because they've the classroom experience and not the hands-on experience." [FHWA#59]

- The Black American male owner of a DBE- and MBE-certified construction company commented that gaining a reputation for being able to do your work was a factor that affected opportunities for minorities and women entering and advancing in the industry. [FHWA#60]

H. Insights Regarding Business Assistance Programs, Changes in Contracting Processes, or Any Other Neutral Measures

The study team asked business owners and managers about their views of potential race- and gender-neutral measures that might help all small businesses, or all businesses, obtain work in the California contracting industry. Interviewees discussed various types of potential measures and, in many cases, made recommendations for specific programs and program topics. The following pages of this Appendix review comments pertaining to:

- Awareness of programs in general;
- Technical assistance and support services;
- On-the-job training programs;
- Mentor-protégé relationships;
- Joint venture relationships;
- Financing assistance;
- Bonding assistance;
- Assistance in obtaining business insurance;
- Assistance in using emerging technology;
- Other small business start-up assistance or assistance in general;
- Information on public agency contracting procedures and bidding opportunities;
- Online registration with a public agency as a potential bidder;
- Hardcopy or electronic directory of potential subcontractors;
- Pre-bid conferences where subcontractors can meet prime contractors;
- Distribution of lists of plan holders or other lists of possible prime bidders to potential subcontractors;
- Other agency outreach such as vendor fairs and events;
- Streamlining or simplification of bidding procedures;
- Breaking up large contracts into smaller pieces;
- Price or evaluation preferences for small businesses;
- Small business set-asides;

- Mandatory subcontracting minimums;
- Small business subcontracting goals;
- Formal complaint and grievance procedures; and
- What works well about Caltrans’s contracting processes and suggestions for improvement.

Awareness of programs in general. Many interviewees reported having knowledge of or participating in business assistance programs and described their experiences. [e.g., FHWA#17, FHWA#22, FHWA#23, FHWA#32, FHWA#44, FHWA#52, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#60, FHWA#61] For example:

- When asked if there are any helpful business programs and events for small businesses, the Black American female owner of a transportation firm stated, “I’ve been going to these little minority networking events that they have, the little meet and greets. They have people come and they say they help you meet people but they don’t really. They have it for everything else under the sun from janitorial to everything else, transportation has not been one of them. Every time I go to those events, I don’t see anything under transportation so I kind of stopped going to those. Right now, I’m linked to the different minority programs and I wait and see whenever they have little seminars.” [FTA#5]
- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm commented about his familiarity with small business programs. He said, “Caltrans and other agencies have had minority business workshops, where they have networking events for minority businesses to coordinate and meet with prime consultants. I’ve attended a few of those but, being a new company, whether you’re a minority or not, that doesn’t really matter if you’re a new company. So, [we struggle with networking and building relationships], [with] going and introducing ourselves to folks and saying what we do.” [FTA#8]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated that he was aware of some business assistance programs available to his firm. He said, “I attend this one workshop, an SBA program for small businesses to help them with federal contracting. I wouldn’t say that I learned very much from it because most of it I already knew. In general, I have not received a lot of assistance; most of it I just figure out [on my own].” [FTA#15]
- The non-Hispanic white male owner of a specialty construction firm stated that he has never been involved with any business assistance programs. He said that he is aware of the Small Business Administration and added that he went to their website and “took a look” at the SBA; but it looked like too much work for him to take on. [FHWA#37]
- The non-Hispanic white male owner of an engineering firm stated that he has general knowledge of business assistance programs such as S.C.O.R.E. and the Small Business Administration. [FHWA#42]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm when asked for her insights regarding business assistance programs indicated that she is aware that programs are available, “but I cannot afford to pay.” [FHWA#50]

- The Black American male owner of an MBE-certified contracting firm said, “I’ve used them, and even some of those [small business assistance] programs you almost have to be at a point where you’re financially strong enough that you don’t need them before you can access them.” [FHWA#15]
- The non-Hispanic white male representative of a general contracting company reported that he has limited knowledge of programs in general. He noted that his knowledge is rooted in knowing a few business groups and agencies that assist with outreach to contractors and disadvantaged businesses prior to bid. [FHWA#41]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated that her firm has interacted with several business assistance programs but said there was not enough focus on specific information about how to work in the industry. She said, “It was just surface stuff.” [FHWA#48]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm when asked if he had ever taken advantage of any supportive agency programs stated, “I’ve gone to a couple of those and they’re kind of set up in a manner that they’re just kind of basic almost too remedial. Very, very basic from starting a business. They don’t go into far enough reaching details as far as what do you do when a prime contractor changes your bid or what do you do when a prime contractor [stops using you because they have reached the contract amount even though there is still work to do.” [FHWA#10]
- The non-Hispanic white female representative of a general contracting company stated that she was aware of the Small Business Administration (SBA). She said that she thought about exploring getting funding from the SBA when she was expanding her business into other markets, but she determined that type of funding was not necessary. She said that the SBA process is intense, but her business has the tools in place that the SBE-certification process requires. She said, “We have just been fortunate. Some people do not have that advantage.” [FHWA#43]
- The non-Hispanic white male representative of a general contracting firm reported that his firm is “available to Caltrans and also small business” to assist with business assistance programs adding that “there’s a lot of different services even within the communities, and we’re involved in these for each of the communities where we did work.” [FHWA#26]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm reported, “[I] was absolutely stunned by the number of assistance programs there are. I mean, I had no idea how many there were until I got my DBE, and the one in San Diego is exceptional.” [FHWA#38]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said regarding business assistance programs, “We’re aware of them. We really haven’t taken advantage of them.” [FHWA#11]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated that he has knowledge of programs that offer assistance to small businesses. For example, he indicated that he was aware of SCORE seminars and workshops for small business development. [FHWA#47]

- When asked about business assistance programs in general, the Subcontinent Asian American male owner of a DBE-certified engineering firm mentioned his awareness of the Federal Technology Center. He commented, “I used to go [there for training classes]. I learned a lot from them.” He said, “I think like my people; we need to attend those classes and not blame others for our shortcomings.” [FHWA#12]

The same business owner reported that he recently attended a class about accounting procedures when contracting with the federal government. He stated, “I learned a lot about Federal Acquisition Regulation clauses.” [FHWA#12]

- Regarding business assistance programs in general, the Hispanic American female owner of an MBE-certified specialty services firm said that her firm once looked into working with a networking organization, but it was not a good fit for their business. [FHWA#5]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business commented, “The only [small business support program] I’m aware of is through the [Small Business Administration]. They have a great program. And I wish that that would have extended to Caltrans.” [FHWA#24]
- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider stated that his firm is aware of business assistance programs and are interested in attending more classes. He said, “We are looking to figure out what we can do to make the business better.” [FHWA#21]
- The non-Hispanic white male owner of a concrete inspection agency commented that he was aware of the existence of certain programs but said, “I have no knowledge on how to attain them or how to contact the programs that are out there.” [FHWA#59]

Other business owners reported having little or no knowledge of assistance programs in general and not participating in any programs. [e.g., FHWA#30, FHWA#31, FHWA#40, FHWA#51, FHWA#54] For example:

- When asked if the firm has experience with any business programs that support new businesses the Black American female owner of a transportation firm stated, “To be completely honest, no. A large part of that is because I’m not aware of them, so you can’t take advantage of what you’re not aware of. Second, there’s not enough hours in the day to do everything. I am the type of person, when presented with something that I think could be beneficial for myself or those around me, I pursue it.” [FTA#2]
- When asked about her knowledge of any business assistance programs, the non-Hispanic white female owner of an SBE-certified specialty consulting company said, “I don’t have time to go to some kind of meeting and I guess I don’t see myself as needing help, so I don’t respond to any of those things.” [FHWA#20]
- When asked if he was aware of any business assistance programs, the non-Hispanic white male representative of a DBE-certified construction-related firm responded, “Today, no. I am not aware of anything. There may be some, but I know that a few years ago, there were some small business loans like 2 percent for out of the country people. People coming in from other countries to start a business.” [FHWA#53]

- The non-Hispanic white female owner of a DBE-certified consulting firm said that she is aware of business assistance programs; however, she added that she has not used them because her firm is service driven. [FHWA#39a]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated, “I’m sure there are some, but I am pretty independent — I don’t even recognize there are some. From my perspective, I do not think they are useful, but that is just my perspective. I am sure they could help somebody.” [FHWA#45a]
- The Native American male owner of a DBE-certified construction-related firm said that he has not taken advantage of any business assistance programs, “I haven’t used them.” [FHWA#49]

Technical assistance and support services. The study team discussed different types of technical assistance and other business support programs. Some interviewees reported experience with or knowledge of technical assistance and support services. For example:

- The non-Hispanic white male owner of a specialty construction firm stated that he had heard of a company that would help with technical support and with understanding “how to jump into a system like Caltrans” but could not recall the company’s name. He went on to say that Caltrans has its own culture “even down to how you measure things and do their plans,” so this company provides support to make that transition and help businesses learn the system. He said that type of assistance would be helpful. [FHWA#37]
- Regarding business assistance programs offered by trade or professional organizations, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm stated, “I don’t know what they do, but they sure as hell don’t help anybody.” He said that his firm had never received any assistance from trade or professional organizations. [FHWA#8]
- The Black American male owner of a specialty contracting business reported being unaware of any technical assistance or support services. [FHWA#27]
- The Black American female owner of a janitorial services firm stated that she is aware of some technical assistance and support services programs. She elaborated, “Anytime there is an extra service or resource that could streamline these operations is useful and beneficial. Like SCORE for instance. That’s helpful and beneficial for new businesses with creating business plans and financing and where to find it. SBA is another one.” [LAM#26]

Many business owners reported that technical assistance programs would be helpful. [e.g., FTA#8, FHWA#38, FHWA#39a, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#55, FHWA#58, FHWA#59] For example:

- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that technical assistance programs are “not related to construction at all I’m selling a service. But what they’re trying to teach me didn’t really apply to what I need in construction.” [FHWA#24]
- The Black American male owner of a DBE- and MBE-certified construction company stated that technical assistance and support services are great if the timing is right. [FHWA#60]

Some business owners do not find technical assistance programs useful, or are unaware of the program. [e.g., FHWA#16, FHWA#25, FHWA#42] For example:

- The Black American male owner of a DBE- and SBE-certified contracting firm reported that technical assistance and support services are not beneficial; particularly, with the amount of time that is required to receive the assistance of services, it does not get a firm any work. [FHWA#61]
- The non-Hispanic white female representative of a general contracting company said that technical assistance and support services are “not that big of a deal anymore like it was 20 years ago.” [FHWA#43]

On-the-job training programs. Some interviewees felt that on-the-job training programs would be useful or already participated in the program. [e.g., FHWA#37, FHWA#38, FHWA#39a, FHWA#47, FHWA#50, FHWA#51, FHWA#52, FHWA#53, FHWA#55, FHWA#58, FHWA#60] For example:

- Regarding on-the-job training programs, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, “The problem we run into is we’re on the union and all our employees are supposedly getting trained from their prospective unions, which isn’t necessarily the case.” [FHWA#10]
- Regarding on-the-job training, the Black American female owner of a construction-related business reported that she takes advantage of all Caltrans online training. She said, “I know I sound like a “Caltrans commercial. They are very good. I have taken training courses with them on-line.” [FHWA#2]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated that on-the-job-training programs are useful. He said, “My first employee was involved with the program. They would pay half of her salary if I hired her, and give her some training. That worked perfectly.” [FHWA#45a]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company reported that on-the-job training programs are “very important” to his firm. He added, “The more [trained workers] we have, the more work we can get.” [FHWA#46a]
- The Black American female owner of a janitorial services firm stated that she is aware of one on-the-job training and rehab program. She explained, “They would send me candidates and they would work in the company. They would have a coach come to work with them and just see how well they’re performing and how well they’re adjusting to the job. It’s a rehab program. I think it’s for those people with disabilities.” [LAM#26]

Many other interviewees said that on-the-job programs would not be helpful in their industry, that barriers exist, or that they are unaware of the existence of such programs. [e.g., FHWA#12, FHWA#24, FHWA#28, FHWA#33, FHWA#40, FHWA#42, FHWA#54, FHWA#56] For example:

- The non-Hispanic white male representative of a general contracting company said, “I had my own on the job training programs.” [FHWA#41]

- The Native American male owner of a DBE-certified construction-related firm noted that in his industry on-the-job training programs would typically not work because a certification is required to perform the work. [FHWA#49]
- The Black American male owner of a DBE- and SBE-certified contracting firm noted that he does not see value in on-the-job training programs. He stated, “You have to be licensed to be a contractor.” [FHWA#61]
- The non-Hispanic white male owner of a concrete inspection agency noted that he has mixed opinions about job training programs as they are extremely expensive. He stated, “I personally don't pay that. Now, for an employee that is being rehabilitated through an agency that would do because I would probably have to pay them because they have a way to be supported during the training process.” [FHWA#59]

Mentor-protégé relationships. Many interviewees commented on mentor-protégé programs. A number of business owners said that mentor-protégé relationships would be desirable. [e.g., FHWA#35, FHWA#37, FHWA#38, FHWA#39a, FHWA#40, FHWA#43, FHWA#46a, FHWA#47, FHWA#49 FHWA#52, FHWA#53, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#60, FHWA#61] For example:

- When asked if the firm has participated in any mentor-protégé relationships the non-Hispanic white female owner of a DBE-certified engineering firm explained, “Smaller companies have been really great at showing me how they run their books or how they do their taxes or payroll and kind of recommending a way that I could do it. Just asking business questions like, ‘How do you handle this or that?’ I've gotten more assistance from other small businesses that I know in the town that I live in, just by friends that I know that are running small businesses.” [FTA#6]
- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm commented about programs that have been helpful to him as a small business owner. He said, “Caltrans has an MBE event talking about new projects. If I have time, I'll try to attend that. I also tried the Caltrans protégé-mentor program, but I haven't found a protégé willing to take us on yet. I've shopped around a little bit. A few of the folks that wanted to take us on aren't really in our field, or there is not much work we would do together, and so trying to connect with someone who is already in the Caltrans system and is willing to be a mentor is really difficult but we're looking into it.” [FTA#8]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm indicated that his firm had participated in the mentor-protégé program. He said, “We are kind of in touch because I still go and attend [mentor-protégé meetings] on a quarterly basis.” [FHWA#23]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm reported, “The mentor program that Caltrans has is very good in concept, but they need to carry forward a step further.” He said, “They make sure that the mentor and the protégé have meetings and discuss the problem, the solutions. The mentor, the protégé, step-by-step to marketing, to the FAR compliance issue, marketing, finance, everything very effective, and they should do it statewide.” [FHWA#14]

- The non-Hispanic white male owner of an SBE-certified specialty consulting company said that he has participated in mentoring, and he currently has a student from Fresno State working for the company that worked with them last summer. [FHWA#29]
- The non-Hispanic white male representative of a general contracting firm stated that his firm participates in mentor-protégé relationships and currently has one protégé. [FHWA#26]
- Regarding the importance of mentor-protégé programs, the Black American female owner of a DBE- and SLBE-certified construction-related business commented, “Yes. That’s what [is] really going to help small businesses.” [FHWA#48]
- The non-Hispanic white male representative of an engineering firm reported, “We work with California State University Fresno in helping with the students.” [FHWA#33]
- The Black American male owner of a specialty contracting business stated that although he is unaware of mentor-protégé programs, he thinks mentors are important. He commented, “Throughout my career I’ve found a handful of people that I would consider mentors and I go to them when I have questions on things.” [FHWA#27]
- The non-Hispanic white male representative of a general contracting company indicated that he knows about mentor-protégé relationships but has not participated in them. He added, “I think [mentor-protégé relationships are] a great idea for [small businesses] to grow and have a resource to draw on that’s outside of their knowledge base.” [FHWA#41]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business reported that her firm has not been involved in any mentor-protégé relationships but would like to be included in one. [FHWA#24]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that his firm is active in the Calmentor program with Caltrans. [FHWA#44]
- The non-Hispanic white male owner of a concrete inspection agency commented that mentor-protégé relationships are resourceful because that is how he got started. [FHWA#59]
- The Asian American male owner of a structural and civil engineering firm noted that this kind of program would help small businesses gain more knowledge. [LAM#27]
- When asked if mentor-protégé programs would benefit the firm, the representative of a DBE-certified non-Hispanic white female-owned civil engineering firm responded, “Yes, and it would help to introduce mentors by hosting mixing events.” She explained “Right now we attend Pre-Bid meetings, and find those helpful to learn about other companies and subcontractor opportunities.” [LAM#6]
- When asked if mentor-protégé programs would benefit the firm, the representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm responded, “Yes, definitely. [Mentor-protégé and joint venture programs] would be great because we could benefit from working with bigger firms that can handle bigger projects.” [LAM#8]

Some owners had negative perceptions, faced barriers to participation, felt such programs are not useful, or were unaware of mentor-protégé programs. [e.g., FHWA#16, FHWA#20, FHWA#25, FHWA#28, FHWA#42, FHWA#45a, FHWA#50, FHWA#51]. For example:

- The Hispanic American male representative of an engineering-related firm commented, “a mentor-protégé program is a good idea, but it depends on how it is implemented. In District 7 it ended up serving on a few firms; there was evidence of favoritism.” [FHWA-WT#24]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm when asked about mentor-protégé relationships stated, “That’s something that I’ve honestly been trying to have happen for a while and can’t really find anybody interested in doing that. It is a great concept, but [the big companies] do not want to do it. [The big companies’] perspective is, why [they] should train [us] to take [their] business from [them]. Seriously, how can we possibly affect your businesses in a negative manner?” [FHWA#10]
- The Subcontinent Asian American male owner of a DBE-certified engineering firm indicated that he had tried to participate in the Caltrans mentor-protégé program for two years. He said, “I [spent] many days on it; daily, weekly, one [or] two hours so that I can fit in with the mentor protégé program with Caltrans. I was so disappointed. [I attended many meetings] with the district, but [ultimately they] could not help me” get involved in a mentor-protégé relationship. [FHWA#12]
- The non-Hispanic white female owner of a WBE-, SBE and DBE-certified specialty construction firm said that she has tried to participate in the mentor-protégé program, but the program was full. [FHWA#22]

Joint venture relationships. Interviewees also discussed joint venture relationships. Many business owners are interested in, support, or already participate in joint ventures. [e.g., FHWA#12, FHWA#16, FHWA#17, FHWA#29, FHWA#37, FHWA#39a, FHWA#40, FHWA#41, FHWA#43, FHWA#44, FHWA#46a, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#60, FHWA#61] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm when asked about joint venture relationships said, “I’ve looked at them. I’ve only found one company that was at least willing to try to put something together. No one else would want to be bothered with it because it was going to take too much to manage.” [FHWA#10]
- The Black American female representative of a trade organization reported, “one of the issues we see from a lot of the African American contractors is that they don’t have the capacity.” She added, “we try to develop joint ventures [and] partner the construction teams. There isn’t much coordination in how to keep them together [and] manage them, because they’re all trying to manage their things.” [FHWA-PF#3]

The same representative of a trade organization added, “from an organization like Caltrans, how do we help joint ventures that we are trying to help minority contractors develop so that they can have the capacity to go for those subcontracts or the prime contracts that are

available how do we help manage that relationship.” She added, “We always face the barrier of how to maintain the relationship of the contractors that are joining in the joint ventures.” [FHWA-PF#3]

- When asked if her trade organization has had more success with other public agencies, she responded, “Honestly, not so much. It’s just a lack in general.” [FHWA-PF#3]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said that joint venture relationships are “more for the general contractors. Because with [our particular business] we have to do the work, so it’s hard to joint venture, especially if it’s not another DBE firm.” [FHWA#11]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said his company has not participated in any joint venture relationships; but, from his perspective, these relationships are beneficial. He added that he might pursue a joint-venture relationship as larger projects become available. [FHWA#47]
- The Hispanic American male owner of a specialty construction firm reported that his firm did a joint marketing program and website development with another company. [FHWA#4]
- The Subcontinent Asian American male owner of an architecture and design firm said that they once went into a joint venture to bid on a project with City of Thousand Oaks. He added that they were on a short list [final 4] to win the bid. [FHWA#6]
- The non-Hispanic white male representative of a general contracting firm noted that his firm does “a huge amount of [work] in joint venture.” [FHWA#26]
- When asked about joint venture relationships, the non-Hispanic white male owner of an engineering firm stated, “I was kind of late to that bar. I wish I would have started that some time ago.” [FHWA#42]
- The non-Hispanic white male owner of a concrete inspection agency said that he was in favor of joint venture relationships. He said, “There are certain jobs out there that are really huge and...that I could not, or wouldn’t even think about doing without maybe a joint venture.” [FHWA#59]

Some faced challenges with the joint venture relationships, have not participated, or find no value in joint relationships. [e.g., FHWA#9, FHWA#22, FHWA#23, FHWA#28, FHWA#32, FHWA#34, FHWA#48] For example:

- The non-Hispanic white male owner of an SBE-certified specialty contracting business stated that he has stopped pursuing joint venture relationships. He said, “Everybody wants to try to take advantage of you. That’s what I’ve experienced with joint ventures.” He said potential partners “either want to ride off my reputation or my skills because they don’t have them or they don’t have the license.” [FHWA#35]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said he does not agree with joint venture relationships. He further said, “I never do joint ventures. I don’t have partners, only my wife.” [FHWA#45a]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm explained that joint ventures do not work well for DBE subcontractors “because the first thing that happens is okay, if I carry a subcontractor under my name, [prime contractors] get a 100 percent of the contract value for the DBE quota. If I’m the joint venture, [the prime contractors] only get the percentage that I represent in the joint venture.” [FHWA#38]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm explained that a public program encouraging joint ventures would have little value to his firm, because it is already “steps ahead of what Metro is doing.” He stated that he believes agency sponsored programs are a “dog and pony show” typically limited to professional service firms. [LAM#1]
- When asked if joint venture relationships are helpful to small businesses, the executive of an SBE-certified non-Hispanic white male-owned landscape architecture firm replied, “Very rarely have we done that. There are too many variables to be able to answer that, whether it would be advantageous for them, whether they should stay away from joint ventures, because if they’re not familiar with it, they could get hurt by it, if they weren’t an equal joint venture partner. The devil’s in the details, when you draw up joint ventures. It might be helpful to know about it, if Metro had a program like that. I would warn DBEs or small businesses to be very careful.” [LAM#5]

Financing assistance. The study team asked business owners and managers about financing assistance.

Many interviewees thought financing assistance is valuable, have used it, or already face challenges with financing. [e.g., FHWA#2, FHWA#12, FHWA#18, FHWA#34, FHWA#39a, FHWA#40, FHWA#42, FHWA#43, FHWA#44, FHWA#46a, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated, “I’ve looked at SBA and the loans. We can never qualify because they’re just too difficult to get.” [FHWA#10]
- The Black American male owner of a DBE- and SBE-certified contracting firm described a business assistance program that he supports, “selling accounts receivable to a third party, so that your firm is paid immediately and the third party collects debts from the client] would be good if it was reasonable. The fees are very high. That’s your money that you’re banking against.” [FHWA#61]
- The Black American male owner of a DBE- and SBE-certified construction-related firm when asked about financing assistance programs stated that he is aware of the Small Business Administration financing assistance program but that the “program doesn’t allow you to buy or to finance equipment. They only allow you to finance a job.” He added that there should be “a program to help you finance equipment based on the contract that you have. That would help out a lot.” [FHWA#19]
- The non-Hispanic white male representative of a general contracting company stated that his firm has provided financial assistance to both disadvantaged and non-disadvantaged

subcontractors. He added, “Down through the years, many times we’ve had subcontractors say ‘we are really struggling to make payroll. We have [several jobs we are working on]. Is there any way that you prepay us?’” He said that, if his firm had cash on hand, he would grant the subcontractors request. [FHWA#41]

- The non-Hispanic white male owner of a concrete inspection agency stated that he thought financing assistance would be a good program. He said that he sometimes does not accept certain jobs because he knows the time period for getting paid. He said, “if I had two or three employees that are maybe working on it a day and I know that I’m not going to get paid for two months, without some kind of financing, I could not bid on that job.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company noted that financing assistance would be a good program. He said, “I would definitely love it.” [FHWA#60]

Many business owners did not need financing assistance, are against a program, faced challenges with a program, or are unaware of any financing assistance program. [e.g., FHWA#5, FHWA#9, FHWA#13, FHWA#17, FHWA#23, FHWA#24, FHWA#27, FHWA#32, FHWA#35] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that seeking financial assistance makes him “a little afraid,” whether he should be or not, because it seems so far out of his reach. He went on to say that “it probably isn’t. They’re just as willing to help me if I would just work with and call them and enlist their assistance.” [FHWA#37]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported that she attended a training class on financing assistance where the instructor recommended businesses have their books audited at the cost of \$5,000. She said, “There are some things that are interesting and you learn, and then other things that are just [unrealistic]. The amount of time I’d have to spend to do it and then the amount of money it would cost [is not reasonable].” [FHWA#22]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that her firm’s experience in working with other individuals and organizations offering financing assistance is that they cannot help do any more than the firm could do themselves with financing a project. [FHWA#3]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm when asked about financial assistance said, “[Financial assistance] may help us, but financial assistance especially on the federal level can really backfire, and they bite badly. There is a bad side to financial assistance.” [FHWA#45a]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company stated that his firm has never sought help obtaining financing, but noted that he has “thought about getting” a Small Business Administration loan. [FHWA#29]

Bonding assistance. The study team asked business owners and managers about bonding assistance. Many companies do not face challenges with bonding requirements or need

assistance, and many are unaware of the program. [e.g., FHWA#10, FHWA#23, FHWA#24, FHWA#27, FHWA#29, FHWA#35, FHWA#48]

- The Black American male representative of a general contracting firm reported that they assist DBEs with bonding assistance by identifying “where [DBEs] can get bonding or we can sometimes waive bonds or cover in other ways without paying their bond. We help to find bonds. If they can’t get it, we’ll waive it.” [FHWA#26a]

Some interviewees thought bonding assistance would be valuable or are using it already. One supported small business bonding classes but suggested that they focus more on small business needs. [e.g., FHWA#16, FHWA#39a, FHWA#40, FHWA#43, FHWA#47, FHWA#44, FHWA#45a, FHWA#46a, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm reported that she attended a bonding training class. She said it was helpful, but the class focused on businesses that have a profit of \$15 million. At \$15 million, “you don’t even need help because that’s a piece of cake for you.” [FHWA#22]

Assistance in obtaining business insurance. Some business owners and managers interviewed said that assistance obtaining business insurance would be helpful to small business. [e.g., FHWA#37, FHWA#39a, FHWA#40, FHWA#42, FHWA#44, FHWA#47, FHWA#48, FHWA#49, FHWA#55, FHWA#56, FHWA#58, FHWA#59, FHWA#60]

Some interviewees said that they would appreciate help regarding business insurance. For example:

- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that her firm faced challenges in obtaining insurance for working over water, and thus were unable to bid on work in the Port District. [FHWA#7]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated that assistance in obtaining business insurance would be helpful because premiums are so expensive. [FHWA#45a]

Other business owners did not require assistance in obtaining business insurance or did not support an assistance program. [e.g., FHWA#10, FHWA#29, FHWA#46a, FHWA#53, FHWA#61]

- The non-Hispanic white female representative of a general contracting company said that assistance in obtaining business insurance is unnecessary because reputable brokers and companies already exist to assist businesses. [FHWA#43]

Assistance in using emerging technology. Many business owners said that assistance using emerging technology would be helpful. [e.g., FHWA#37, FHWA#39a, FHWA#41, FHWA#42, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#52, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- Regarding assistance with emerging technology, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said, “[There is] a lot of emerging technology with shotcrete.” He added, “but [the big companies] will not even let you come to the same trough that they’re at to pick up the drool as it goes over the edge, they won’t do it.” [FHWA#10]
- The non-Hispanic white male owner of a specialty contracting company said, “I think that [assistance using emerging technology] would be really good, especially with Caltrans because they have all the technology. All their measurements are in metrics, so it would be good to get some tutoring or assistance on that.” [FHWA#51]

Some business owners indicated that assistance using emerging technology is not necessary or are unsure of the value or such assistance. [e.g., FHWA#40, FHWA#50]

- The non-Hispanic white female representative of a general contracting company said that new programs providing assistance in using emerging technology is not necessary because there are a number of different programs already in place for technology assistance. [FHWA#43]
- The non-Hispanic white male representative of a DBE-certified construction-related firm commented about assistance in using emerging technology, saying, “Again, it’s kind of a nice gesture in a way to help people, but where is the fairness? If you are going to put some new technology out there, why just focus assistance of any form on the small business? Why not help larger businesses as well? The larger businesses look at some of that as the cost of doing business. I consider us, we do have [over 200] people and I consider us being a small business. And with that being said, I think we take advantage of all the technology.” [FHWA#53]

Other small business start-up assistance or assistance in general. Some interviewees mentioned other types of business assistance and offered their opinions. For example:

- The non-Hispanic white male owner of a specialty construction firm stated that he has heard of other loan companies through advertisements on AM radio but has no personal experience with such loan companies. [FHWA#37]
- The same business owner reported that when credit reporting is required past financial mistakes could limit a company’s growth or success. [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that if she was starting up again “it would be very helpful to have a place that has meeting rooms that had color printers that I could access at any time that I needed to.” [FHWA#55]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm recounted that in the early 2010’s she wanted to take the company to next level. She said that she applied for a scholarship with a private-sector business development program to learn how to develop a business plan. Her goal was to rely less on others and have greater peace of mind. She remarked that the program taught her how to find resources with the right type of experience to assist her in growing the business. In

addition, she reported that the education she received provided a roadmap for her to grow her firm. [FHWA#3]

- The Black American male representative of a general contracting firm reported that his company has its own “very expensive small disadvantaged business program.” He said, “[We] make sure that we meet the goals and that we help DBEs [and] small disadvantaged businesses, in their ability to do work and expand their capability.” [FHWA#26a]
- The Hispanic American male owner of a specialty contracting company when asked if there is any other small business start-up assistance that would be helpful stated that if a business needs start-up assistance “you are already in trouble.” He added that a firm must “learn from experience and mistakes. Too much help does not enable businesses to learn what is needed and necessary.” [FHWA#40]
- The non-Hispanic white male representative of a DBE-certified construction-related firm stated that start-up assistance would be helpful to the industry. He explained, “It’s too easy to start a business. People go out on their own and have a good business model [but] they really do not know what they are doing.” [FHWA#53]
- The Black American male owner of an MBE-certified contracting firm spoke about his affiliation with a trade association. He reported that the trade association works with a number of different groups to bring resources to contractors saying, “We collaborate with the SBCDCs, we collaborate with SBA, we collaborate with the mid-state developments.” [FHWA#15]
- The female owner of a WBE-certified transportation firm said they take advantage of opportunities for safety training through the DOT and send their employees for safety certification to a program called Safety Services. [FHWA#34]
- The non-Hispanic white male owner of an SBE-certified consulting company said that when he started his business, he referred to a business coach. He also said that shortly thereafter he discovered the services of the small business development centers. He reported that this assistance has been helpful. [FHWA#44]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, “I don’t know how effective those small business start-up assistance programs are. They are more hand holding than anything else. I really didn’t think it is helpful for me but that’s my personality.” [FHWA#45a]

Information on public agency contracting procedures and bidding opportunities.

Many interviewees indicated that more information on public agency contracting procedures and bidding opportunities would be helpful. [e.g., FHWA#38, FHWA#39a, FHWA#40, FHWA#41, FHWA#42, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of a specialty construction firm stated he is not very familiar with public agency contracting procedures and bidding opportunities, other than that some cities utilize the “Green Sheet” to list projects and that some cities list projects on the city’s website. He reported that as a small business he would “love” to bid on public agency work, but it seems out of his reach because of bonding—a barrier that he said “may

all be in my head.” He went on to say that “work is work. It’s just getting through the red tape it all seems so daunting.” He added that he thinks getting information on public agency contracting procedures and bidding opportunities would be helpful. [FHWA#37]

- The non-Hispanic white male owner of an SBE-certified specialty consulting company stated that public agencies “should make [opportunities and bidding information] freely accessible. [There should be an agency run] site we can go to and see what jobs are bidding in our region that we want to bid on and not [have] to go through a third-party entity [or pay for BidSync].” [FHWA#17]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that he doesn’t “really have any knowledge of the contract by the time it gets down to us because I’m working for [a large prime contractor] as a third-tier sub and you’re basically in that same category of the guys that bring the chemical toilets.” [FHWA#10]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that information on public agency contracting procedures and bidding opportunities are fine but suggested that public agencies rethink including indemnification clauses in their contracts. She said, “It’s not an education issue for the people starting up a business. It’s an education thing for the people in the public agencies insisting upon having a particular thing in their contract.” [FHWA#55]
- The non-Hispanic white male owner of an SBE-certified consulting company said that information on public agency contracting procedures and bidding opportunities would be helpful. He added that there are so many different little agencies that visiting them all looking for opportunities is labor intensive for small businesses. He noted that to have a “one-stop” place to review the available bid opportunities for public agencies would be helpful. [FHWA#44]

Some business owners reported that state agencies already do a good job providing information about bid opportunities. [e.g., FHWA#53]

Online registration with a public agency as a potential bidder. Most owners and managers of construction companies said that online registration with public agencies would be helpful. [e.g., FHWA#39a, FHWA#40, FHWA#41, FHWA#42, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of a specialty construction firm said that he thinks online registration with a public agency as a potential bidder is how the study team got in contact with him because he was looking into doing Caltrans work at one time. [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that online registration is okay but must improve. She added, “Sometimes, you want to look into something without everybody knowing you’re looking into it. Often, when you do that, you can just take a quick look at the project description and go, ‘Oh, no, that won’t work.’ But if you have to register and go through that whole process beforehand, frankly if I start seeing that, I usually just [say], ‘No, I’m not going to go through it.’” [FHWA#55]

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, “We use it a lot. It’s just, it’s time consuming. And you just have to sit there and go through all the specs. I have not used it in a while because the bottom line is, I do not know if anyone, any of the primes, look at it. They all pick up your name and number from the [DBE database] and they do not even do it themselves; they have companies that do it all now. [There’s one] company that always has the same British lady with the same British accent call all the time. She called while we were sitting here.” [FHWA#10]

Hardcopy or electronic directory of potential subcontractors. Most interviewees said that hardcopy or electronic lists of potential subcontractors would be helpful. [e.g., FTA#4, FHWA#37, FHWA#39a, FHWA#40, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm expressed his support for an electronic directory of potential contracts or prime contractors. “Electronic would certainly be helpful, [if] we were trying to get in to a new industry and wanted to try to be a subcontractor on some bigger projects.” [FTA#15]
- The non-Hispanic white male owner of a specialty construction firm stated that a directory of potential subcontractors would be helpful as long as the firms were vetted and legitimate. He believes that currently anyone can go online and create a profile but thinks that changing this so that registered firms complete an investigation to be sure they are legitimate would be a good thing. [FHWA#37]
- The non-Hispanic white male owner of a specialty contracting company said that hardcopy or electronic directories of potential subcontractors would be good for networking with bidders. [FHWA#51]
- The non-Hispanic white male representative of a general contracting company reported that his firm has been in discussions with Caltrans about keeping their DBE directory up to date. He said, “If they are going to make us responsible to meet certain goals, we don’t want to get rejected because we named somebody out of their database that isn’t current, and that has happened.” [FHWA#41]

One interviewee reported that hardcopy is obsolete.

- The non-Hispanic white male representative of a DBE-certified construction-related firm reported, “For many years, I’ve had many of those. I do not even look at them because of the electronic versions of things today. Electronic version might help but the hardcopy [would not] — this is the new millennium.” [FHWA#53]

Pre-bid conferences where subcontractors can meet prime contractors. Many business owners and managers supported holding pre-bid conferences. [e.g., FTA#4, FHWA#11, FHWA#13, FHWA#16, FHWA#17, FHWA#22, FHWA#37, FHWA#39a, FHWA#40, FHWA#41, FHWA#42, FHWA#47, FHWA#48, FHWA#49, FHWA#51, FHWA#52, FHWA#59] For example:

- The representative of an MBE-certified transportation services firm indicated that online registrations, directories of subcontractors, and pre-bid conferences were all helpful to her firm in obtaining and performing work. She stated that these conferences have helped familiarize her with other contractors in her industry. [FTA#12]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm indicated interest in pre-bid conferences that could be hosted and attended remotely, in order to accommodate more participants. He said, “Having [a] digital introduction and having phone calls and chatting with folks [to get] connected, other than having to travel somewhere, would be more beneficial.” [FTA#15]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm indicated that his firm attends pre-bid meetings to “network and talk to people.” [FHWA#23]
- When asked if she has attended pre-bid conferences, the owner of a WBE-certified transportation firm replied that she has and said that they have been “very positive experiences.” [FHWA#34]
- The non-Hispanic white male owner of an architecture-related consulting firm reported that he attends pre-bid conferences. He said, “Oftentimes if there are requirements for [Local Business Enterprise] you can get a percentage [for instance], 10 percent if you simply go to the [pre-bid conference]. [FHWA#30]

Some interviewees indicated that pre-bid conferences are not helpful, they are not available, or that they do not attend them for other reasons. [e.g., FHWA#5, FHWA#24, FHWA#29, FHWA#32, FHWA#46a, FHWA#61] For example:

- When asked if the firm participated in any pre-bid conferences the non-Hispanic white male owner of an SBE-certified consulting firm stated he has previously participated. He said, “That works great when you’re in construction but in my field, there aren’t such conferences.” [FTA#1]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that opportunities for subcontractors to meet and interact with prime contractors during pre-bid conferences are not available. [FHWA#3]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm reported that he attends pre-bid conferences, but they are often not helpful. He stated, “I go to the preconstruction meeting, pre-proposal meeting for the IP and try to network and mingle with those people there.” He added, “But what happened is, I found out that, in many cases, the primes have the teams set up long before the bid day of the proposal. So, if I go to the pre-proposal, it is too late.” [FHWA#14]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented that attending pre-bid conferences has no benefit. He said, “The problem is that sometimes it’s very far away to go.” [FHWA#54]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm gave an example of a pre-bid meeting on a Caltrans project that he described as a “simple little job.” He stated that there were fourteen people from Caltrans in the room to

speaking with him about the job. “I thought, oh, my God, what are these people doing here? I’ve got this little \$25,000 job and so they started grilling me about what I was going to do and this and that and I finally said, what are you guys doing here? You’ve got fourteen of you in here; I’m in here by myself.” [FHWA#8]

He added that he thought the number of participants [in the pre-bid meeting] overcomplicated the process for a small project. [FHWA#8]

- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported that they do not need to attend pre-bid conferences as they know most of the prime contractors. [FHWA#7]
- The Black American male owner of an MBE-certified trucking firm reported that he is much more likely to attend pre-bid meetings if he has been personally invited to attend saying “unless they call me directly, I may not attend because I feel like they’re going to look at me and say, ‘he’s not going to work [out],’ without really knowing me.” [FHWA#25]
- The non-Hispanic white female representative of a general contracting company stated that pre-bid conferences where subcontractors can meet prime contractors are good, “only at the invitation of the prime.” [FHWA#43]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that he has attended several pre-bid meetings adding, “You think you are there to pursue good teaming opportunities but during the 20-minute networking window you quickly find out that the teams are already together.” [FHWA#44]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said that pre-bid conferences where subcontractors can meet prime contractors “are useless.” [FHWA#45a]
- The Black American male owner of a DBE- and MBE-certified construction company said that pre-bid conferences where subcontractors can meet prime contractors were not helpful to attend and that they were a waste of his time. [FHWA#60]

Distribution of lists of plan holders or other lists of possible prime bidders to potential subcontractors. Most of the business owners and managers interviewed supported the distribution of plan holders lists. [e.g., FHWA#37, FHWA#39a, FHWA#40, FHWA#41, FHWA#42, FHWA#43, FHWA#44, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#53, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] Examples of comments include:

- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm emphasized that more information on potential contracts, prime contractors, and subcontractors was always useful for his business. “The more access you have to information about what the contracts are, what the criteria are, what companies currently have them, what companies are looking for subcontractors in particular areas, and just anything that helps you get connected is definitely beneficial.” [FTA#15]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm supports distribution of plan holders lists since he reported that they are very important for networking. [FHWA#45a]

- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, “Yeah, any information of the contractors, primes or general contractors if they have the names.” [FHWA#54]

Other agency outreach such as vendor fairs and events. The study team asked interviewees to speak about their knowledge and experience of agency outreach such as vendor fairs and events.

A number of business owners indicated that they faced challenges in attending outreach events, do not support their usefulness, or are unaware of their existence. Some business owners and managers reported that they could not attend outreach events for many reasons including time constraints, limited staff size, and location. [e.g., FHWA#7, FHWA#10, FHWA#17, FHWA#19, FHWA#42] For example:

- The Black American male owner of a DBE- and SBE-certified contracting firm reported that he does not believe in outreach such as vendor fairs and events. He commented that such events “steal so much of your time that you would lose focus on what you’re really trying to do. What you’re really trying to do is get in a room with that agency and sign a contract.” [FHWA#61]
- A female owner of a DBE- and WBE-certified construction firm commented, “I’d like to say that I don’t think that the lack of attendance to these kinds of things is any indication that there’s not a desire or a need for the program. I find that as a business owner, you’re either buried with work and working really hard to get new contracts, looking at ways of increasing your business, and/or ways of doing it better.” [FHWA-PF#16]
- The same business owner added, “And so the last thing you have time to do is to go to meetings. So, you either don’t have time to attend, or you don’t know about the program or the opportunities available in the program.” [FHWA-PF#16]
- Regarding the disparity study public meetings, the president of a DBE-, SBE- and MBE-certified engineering and construction firm commented, “Who schedules meetings between 3:30 and 5:30PM! The height of the commuting hour.” [FHWA-WT#11]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated, “For me, if they have food, it’s just, ‘hey, how are you doing?’ social thing and go eat and leave.” [FHWA#48]
- The Hispanic American business representative, regarding the disparity study public meetings, remarked, “it appears that Caltrans is not really after attendance at these meetings when they schedule a meeting in downtown Los Angeles from 3:30 to 5:30. [That was] obviously scheduled by someone who has no idea about traffic or by someone who doesn’t care!” [FHWA-WT#3]
- The Hispanic American male owner of a specialty contracting company stated that he has attended outreach events but said these events did not work for him because “[the meetings were] not what I was looking for.” He attended the meetings to network but stated that he gets more business through referral and repeat business. [FHWA#40]

- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported, “I belong to the [Association of General Contractors], so we get a lot of training through there. They always invite me for different things that are going on for certifications for CPR or just for my guys OSHA.” [FHWA#13]

Many interviewees supported agency outreach such as networking events and vendor fairs and attend them. [e.g., FTA#4, FHWA#4, FHWA#5, FHWA#32, FHWA#34, FHWA#41, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#58, FHWA#59] For example:

- The minority owner of a DBE-certified project management-consulting firm, regarding outreach events said, “once you get the certifications, you don’t know how to proceed to get your first contract with all these agencies. You go to these match-making sessions and they’re great.” He added, “once you come off from the session and you try to follow-up with all the contacts you hit road blocks.” [FHWA-PF#7]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm stated, “We’ll go to those because sometimes we feel that’s a step in the door to get work. [We will] are notified about projects. It all depends on how many of those projects are relevant to the work [we] do. Many times, with good faith they do not really look at the work codes, and we are being bombarded with stuff that is not relevant to us. So sometimes it’s nice to know about the projects, but sometimes there’s nothing in there for us [and] none of the bid items relate to the work we do.” [FHWA#11]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported, “In the beginning going to PTAC, which is part of the City of San Diego.” She added that they guide you how to “get your certifications or to work with Caltrans, they tell you the process, what you have to do, how to qualify.” [FHWA#13]
- The non-Hispanic white male owner of a specialty construction firm stated that he feels agency outreach events are like big “schmooze fests,” but he thinks they are great networking opportunities. [FHWA#37]
- The non-Hispanic white male representative of a DBE-certified consulting firm reported that he supports outreach such as vendor fairs and events. He commented, “We try to attend those events, but haven’t for a few years now but I always try to send somebody. These are very advantageous. Honestly, we got one of our biggest clients because of the L.A. vendor fair.” [FHWA#39b]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm reported that she is involved with the Southern California Contractors Association and stressed the importance of affiliating with industry-related professional organizations that help provide business liaisons, partners and contacts. She reported that she met an individual who helped her to work effectively with certain unions through one of these organizations. [FHWA#3]

The same business owner added that she realizes that small businesses and women do not have a voice in public works construction and that she needed to make reliable contacts for guidance. [FHWA#3]

- The Hispanic American male owner of a specialty contracting business stated that his firm participates in workshops and events put on by several trade associations. He said, “We do AGC [the Association of General Contractors], some AGC networking the ABC, Associated Builders and Contractors as well.” He said these associations help keep his company current on regulatory changes, such as OSHA, and help with compliance. [FHWA#9]
- The Black American male owner of a DBE- and MBE-certified construction company said that he does believe in outreach such as vendor fairs and events. He commented that such events have resulted in work for his firm. [FHWA#60]

Several business owners and managers indicated that outreach events were not useful for their companies or said that they do not attend them. [e.g., FHWA-WT#14, FHWA#19, FHWA#57]

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm said that these events are not good for facilitating new relationships. She commented that her firm always sees the same people. She also reported that the State is not looking for firms like hers that are already participating. They are looking for new entrants and participants. [FHWA#3]
- The same business owner said that her firm learns more from professional organizations than from Caltrans and that Caltrans’ outreach is “flimsy.” [FHWA#3]

Streamlining or simplification of bidding procedures. Most interviewees indicated that streamlining or simplification of bidding procedures would be helpful. [e.g., FHWA#20, FHWA#29, FHWA#37, FHWA#39a, FHWA#40, FHWA#42, FHWA#44, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- When asked if the firm has any recommendations on improving the bidding process the non-Hispanic white female representative stated, “Number one just improving by streamlining the documentation that they provide for the processes, number two that they require the applicant or the responsible party to provide documents electronically, anything done electronically is always helpful. Just keeping the RFQs in reader friendly formats, explaining the request and definitions for uncommon language. Sometimes you can get lost in some of those RFQs. I have a lot of experience but someone who may not have the experience but could be a highly educated person and they still have to spend hours just to get through the RFQ because it's so big and there are so many requirements, so many laws that it cites. Those sometimes can be very cumbersome in order to get the contract.” [FTA#4]
- A DBE-certified insurance agency provided recommendations for Caltrans to further assist small businesses, “[Caltrans should] send out emails through the system that does not cost the vendor or potential vendor. We are a small business with small staff or even no staff at all but we are smart and knowledgeable. A liaison/advocate for small businesses can help with streamlining [bid] processes and help agencies with profitability.” [FTA-WT#1]

- The non-Hispanic white male representative of a general contracting company when asked if streamlining or simplification of bidding procedures would be beneficial said, “It would definitely help.” [FHWA#41]
- The non-Hispanic white female representative of a general contracting company said that streamlining or simplification of bidding procedures would be helpful. She remarked, “I’m sure Caltrans has their standardized formatting. Uniformity would be wonderful.” [FHWA#43]

Some business owners indicated that streamlining of bidding is unnecessary. [e.g., FHWA#9, FHWA#45a]

- The non-Hispanic white female owner of a WBE-certified specialty construction firm when asked if simplifying bidding procedures would be helpful to her firm responded that it “seems to be working for me.” [FHWA#7]

Breaking up large contracts into smaller pieces. The size of contracts and unbundling of contracts were topics of interest to many interviewees.

Most business owners and managers interviewed indicated that breaking up large contracts into smaller components would be helpful. [e.g., FTA#4, FHWA-PF#4, FHWA#7, FHWA#9, FHWA#10, FHWA#13, FHWA#14, FHWA#16, FHWA#17, FHWA#22, FHWA#28, FHWA#37, FHWA#29, FHWA#39a, FHWA#40, FHWA#42, FHWA#44, FHWA#45a, FHWA#47, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of an SBE-certified engineering firm expressed how breaking up large contracts into smaller pieces would be helpful for small businesses noting, “When we register to get information about new projects, we try to provide those agencies with the type of services we offer. Now, it seems to me that they bundled up a bunch of services that are particularly unrelated to what we do. It’s quite a bit of a process for a small company to go through all these emails. Then, when you open up the email and look at those projects, and there’s an offer for services, you find that they are not really related to what people buy. That’s one of our difficulties in basically being focused on the different projects or RFPs that are related with the area of work that we do.” [FTA#10]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm supported the idea of breaking up large contracts into smaller pieces. He stated, “[That is] certainly helpful in some instances where the agency has larger contracts and [sees that] there are pieces of it that a small business could do. [If they] were at least willing to issue multiple contracts to a coalition or even to individual companies and then have them work together to deliver it, that would certainly benefit small businesses [and offer] greater access to contracting opportunities.” [FTA#15]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm indicated, “It would be nice if they would break out some of the bid items on larger projects where they’ve lumped out all of the [materials we supply]. There [are] different phases of the work that seems like they could break it down to where a DBE business

would have a chance. Especially on these larger projects to level out the playing field it'd be nice if they could break it down." [FHWA#11]

- The non-Hispanic white female representative of a general contracting company said that breaking up large contracts into smaller pieces would be helpful. She noted, however, that contracts should only be unbundled if a dollar threshold limit was established. [FHWA#43]

A few business owners saw both positive and negative aspects of unbundling contracts. For example:

- The representative of an MBE-certified transportation services firm commented on the practice of breaking contracts into smaller pieces. They stated, "I honestly would not recommend it from [the agency's] point of view. I think it would be beneficial in my position being a small carrier, I think that would be fantastic. But do I think it's a great idea? Probably not." [FTA#12]
- The non-Hispanic white male representative of a general contracting company said that breaking up large contracts into smaller pieces would be helpful for small businesses. He added, "We don't have a problem with [unbundling] because some of these projects are getting just huge, they're getting bigger and bigger but you can't [break projects] down to such a small level that you lose continuity on the overall project." [FHWA#41]

A few business owners did not believe unbundling contracts would be helpful. For example:

- The Hispanic American female owner of an MBE-certified specialty services firm said that breaking contracts into smaller pieces would not benefit her firm. "[Our field] is already a small portion of the overall contract and is a type of service that is already broken out in the overall contract." [FHWA#5]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company did not support breaking large contracts into smaller pieces saying, "We like the big ones." [FHWA#46a]

Price or evaluation preferences for small businesses. Some interviewees had positive comments related to price or evaluation preferences for small businesses. [e.g., FTA#4, FHWA#39a, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#55, FHWA#57, FHWA#59, FHWA#60, FHWA#61] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that he thought price preferences for small businesses would be helpful. He also stated that he is aware of some public agencies that have thresholds where projects under \$25,000 can be awarded to anyone they choose, but the project must go public if it is over that amount. [FHWA#37]
- The non-Hispanic white male owner of an engineering firm when asked about price or evaluation preferences for small businesses commented that he was unsure about how such a program can work. [FHWA#42]
- The non-Hispanic white male representative of a general contracting company stated, "I think [price or evaluation preferences for small businesses] would be beneficial." He said that this is "because it would make an even playing field, it would take away some of the

risk [of including DBE firms that have somewhat higher costs in their bid] because many times we'll look out and say, 'Well, we know we got to be low [bidder] to get the job.'"
[FHWA#41]

Other business owners had negative comments or were not sure of the benefits of price preferences. For example:

- The Hispanic American male owner of a specialty contracting company said that it is difficult to determine the benefit of price evaluation preferences for small businesses. He also reported receiving a contract award when his price has been the higher bid. He said he is not sure why he received the bid or if this practice is fair to other bidders. [FHWA#40]
- When asked if price or evaluation preferences for small businesses would be helpful, the Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, "Anybody who has the lowest price should get the bid." [FHWA#54]

Small business set-asides. The study team discussed the concept of small business set-asides with business owners and managers. This type of program would limit the bidding of certain contracts to firms qualifying as small businesses.

Many business owners and managers supported small business set-asides. [e.g., FTA#4, FTA#6, FTA#12, FHWA-PF#14, FHWA-PF#15, FHWA-WT#14, FHWA-WT#24, FHWA#12, FHWA#13, FHWA#14, FHWA#17, FHWA#28, FHWA#29, FHWA#34, FHWA#37, FHWA#38, FHWA#39a, FHWA#42, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#54, FHWA#55, FHWA#56, FHWA#57, FHWA#58, FHWA#59, FHWA#60] For example:

- When asked about whether the use of set-asides could be helpful for small businesses seeking to win work with public agencies such as Caltrans, the Asian American female owner of a civil engineering firm stated that she thought set-asides would be useful. She said, "That's helpful. That way there will be more opportunity for small business. Otherwise, all the contracts will go to the big business guys." [FTA#14]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm expressed his support for small business set-asides and stated that his company had already been able to benefit from set-asides required by federal agencies for veteran- and service-disabled veteran-owned small businesses. [FTA#15]
- The male representative of a DBE-, WBE-, Woman-Owned Small Business (WOSB-), and SBE-certified sales-related firm commented, "I do know that in some agencies for example, Los Angeles Metro they will actually take a scope of work out of a large prime contractor's contract and award it as a set-aside to DBE's and SBE's. We'd like to see more of that done on a State level and with other cities." [FHWA-PF#19]
- The female Hispanic American representative of a DBE-certified firm reported that L.A. Metro initiated a set-aside program and she recommended that Caltrans do the same. She remarked, "This [Small business set-aside program] is the best milestone you can achieve for DBEs in California, hands down." [FHWA-WT#19]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said he is aware of a city that has small business set-asides. He stated that he has benefited from a few contracts under this city’s program, and he believes the system in place for small business set-asides is good for these businesses because the program focus is not about race or ethnicity but small business. [FHWA#47]

Some business owners expressed concerns about small business set-asides, did not support them, or were not familiar with them. [e.g., FHWA#10, FHWA#11, FHWA#53] For example:

- A representative of an engineering firm expressed concern about small business set-asides, “So much work is set aside for disadvantage firms compared to advantaged firms.” [FTA-AV#26]
- The Hispanic American male owner of a specialty contracting company stated that small business set-asides are not fair to other businesses. He said, “I don’t think it would fair because if I was on the other side, that is how I would feel. I think that we have to be fair to everybody and what is fair is hard for me to say what is fair. I can’t say whether it will be good or bad.” [FHWA#40]
- The non-Hispanic white male owner of a specialty construction firm reported that he did not believe small business set-asides were a good idea. He said, “I just think that there is a lot of expense to try to develop such programs. If you do things in a most efficient way, [work] will trickle down [to the smaller businesses].” [FHWA#18]
- The non-Hispanic white male representative of a general contracting company said that small business set-asides are fine only for “projects that are the sweet spot for those disadvantaged businesses.” He continued saying, “I think it’s an effective tool, one that we [contractors] can really control, but the agencies can use to help with their overall participation.” [FHWA#41]
- The Black American male owner of a DBE- and SBE-certified contracting firm said, “I’d have to say no [to small business set-asides] because the problem is that when you use the term small business, it covers such a big parameter that is not just my business size. It would be any business doing less than \$17 million a year.” [FHWA#61]

Mandatory subcontracting minimums. Some interviewees supported the requiring of a minimum level of subcontracting on projects would be helpful. Other interviewees did not.

Many interviewees commented in support of a mandatory subcontracting minimum program. [e.g., FTA#4, FHWA#7, FHWA#9, FHWA#16, FHWA#17, FHWA#38, FHWA#39a, FHWA#40, FHWA#42, FHWA#43, FHWA#44, FHWA#46a, FHWA#48, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#54, FHWA#56, FHWA#57, FHWA#59, FHWA#60] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that mandatory subcontracting minimums make sense on big projects; but, on smaller projects, they do not make sense because small contracts are better suited for small contractors as primes. [FHWA#37]

- The non-Hispanic white female owner of a DBE-certified consulting firm reported, hesitantly, that they might help small businesses begin to establish relationships. She said that when her firm first became DBE-certified, “Some of those large firms would sub with me just because there was a requirement. Now, they will sub with me because they know I am good. I think the same thing could happen if there was a requirement to try working with small businesses. Then we establish a relationship and then it does not need to be mandatory anymore. I hate to say you must, but I think if at least for a period it was tested, it would give the opportunity to many small businesses to establish some relationships that would really help them.” [FHWA#55]
- The Subcontinent Asian American representative of a DBE-certified specialty engineering business suggested, “The DBE goals should be 20 percent and [a] minimum number of DBEs be specified.” [FHWA-WT#9]

Some interviewees did not support the idea of mandatory subcontracting minimums or did not think they would be effective. [e.g., FTA#12, FHWA#37, FHWA#47, FHWA#61] For example:

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated, “Generally I’m not for all that.” [FHWA#45a]
- The non-Hispanic white male representative of a DBE-certified construction-related firm reported that he did not think mandatory subcontracting minimums would be worthwhile. He stated, “It seems like we’re layering more confusion into those kinds of contracts and deals. If we are going to help a small business, now we are going to allow them to do other sub-contracts and it just seems to me there is a lot of governmental construction in the way. I think sometimes the government gets too big and too involved in these kinds of things.” [FHWA#53]

Small business subcontracting goals. Interviewees discussed the concept of setting contract goals for small business participation.

Many business owners and managers approve of small business subcontracting goals and some suggest that goals be set or expanded. [e.g., FTA#4, FHWA#2, FHWA#4, FHWA#5, FHWA#7, FHWA#11, FHWA#38, FHWA#39a, FHWA#40, FHWA#42, FHWA#43, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#58, FHWA#61] Examples of comments include:

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm stated, “I’m actually for [small business subcontracting goals]. I think it helps small businesses.” He added, “From my perspective the 3 percent DVBE works really nice on my part.” [FHWA#45a]
- The Black American male representative of a minority trade organization stated that he “absolutely” supports small business subcontracting goals. He added, “Not just goals, but legislation with the goals.” [FHWA#52]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that “Caltrans does not make anything mandatory [regarding

goals] and that is where the program falls on its face.” She stated that it would help to have programs in place that assist the general contractors with facilitating the goal requirement and not just leave it up to the general contractor. [FHWA#3]

The same business owner cited an example where a state agency project, at the time of the bid, set a goal of nineteen percent. The interviewee later discovered that the general contractor had only satisfied twelve percent of the goal. She remarked that not meeting the goal showed a lack of commitment to the program. She added that when her firm is involved in mandatory goal bids, the amount of information they need for estimating purposes expands dramatically. [FHWA#3]

- The female owner of a DBE-, SBE-, and WBE-certified construction-related firm remarked, “How does supporting multi-billion-dollar corporations actually meet the intentions of small-business goals?” [FHWA-PF#17]

The same business owner added, “The fact that it may be easier to deal with the technology that these [large] companies offer, there is no way possible small business can afford the lobbying, deceptive marketing these [large] companies have at their disposal.” [FHWA-PF#17]

- The male representative of a DBE-, WBE-, SBE and WOSB-certified sales-related firm commented, “I think in a lot of the contracts where there is a DBE participation goal, there isn’t enough teeth in it to support forth and enforce that goal.” [FHWA-PF#19]
- The Subcontinent Asian-American president of a DBE-certified engineering firm recommended an increase in DBE goals for engineering, design, and data collection projects. In addition, he offered suggestions for increased UDBE goals [additional 10 percent] and encouragement given to DBE firms to bid projects as primes. [FHWA-WT#29]
- The Black American male owner of an MBE-certified trucking firm said he thinks DBE subcontracting goal programs “sound great,” but he has not had any experience with them. [FHWA#25]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm, regarding DBE subcontracting goals programs, stated, “I think [DBE programs are] great. I think if you can qualify under a DBE it opens many doors that are normally shut.” [FHWA#13]
- The non-Hispanic white male owner of a concrete inspection agency noted that larger businesses have an advantage in certain circumstances “that they take everything in-house.... With small business subcontracting goals that would ensure smaller firms have an opportunity.” [FHWA#59]
- The Black American male owner of a DBE- and MBE-certified construction company stated that small business subcontracting goals can actually help small firms get contracts. [FHWA#60]

Some businesses indicated that small business subcontracting goals are not desirable, are challenging, or said that the goals should have limitations. [e.g., FHWA#10, FHWA#37] For example:

- The representative of a construction-related business remarked, “Over the last several years the DBE goals for Caltrans projects have significantly increased.” He added, “the DBE program should be to help small business into the market place to get established, once established that small business should not have such status, the market place needs to be fair for all businesses involved.” [FHWA-WT#6]
- The female representative of a majority-owned construction firm reported, “We have to make so much of the project available to DBEs/DVBES, in doing so we have priced our self out of projects, if we had done this with our own force the costs would be less.” [FHWA-WT#23]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business said she could not comment on DBE subcontracting goals programs because she does not understand them. [FHWA#24]
- The Black American male owner of a specialty contracting business stated that he was only vaguely aware of DBE subcontracting programs. [FHWA#27]
- The non-Hispanic white female owner of an SBE-certified specialty consulting company when asked about DBE subcontracting goals said, “I don’t really know why they have them at all.” [FHWA#20]
- The non-Hispanic white male representative of a general contracting company said that small business subcontracting goals are helpful for small businesses. He, however, reported concern that the DBE subcontracting goal percentages for disadvantaged businesses are rising to levels that are difficult to achieve commenting, “We’re running out of disadvantaged contractors and their capability to do the work.” [FHWA#41]
- Though he supported small business contracting goals, the non-Hispanic white male owner of an SBE-certified consulting company noted that programs be closely monitored. He offered the example of an “on-call or as-need” contract, where the prime claimed to have achieved 20 percent small business participation at the time of award. He reported that his firm only received one very small task order; and, at the end of the project, only a small percentage of SBE task orders were given. He said that the prime kept most of the work in-house, and there were no penalties imposed for not achieving the stated SBE goal. [FHWA#44]
- The Black American female owner of a DBE- and SLBE-certified construction-related business when asked if small business subcontracting goals are helpful, replied, “a lot of firms use their internal employees to make [their] numbers [work].” She further stated, “I was at the commission meeting for a Southern California municipality a couple of years ago, and [a large prime contractor] came in and said ‘we use our internal employees to count for projects to meet the goals.’” [FHWA#48]

Formal complaint and grievance procedures. There were a number of wide-ranging comments, including those who support procedures to resolve complaints and grievances. [e.g., FHWA#37, FHWA#38, FHWA#39a, FHWA#39b, FHWA#43, FHWA#44, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#50, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#57, FHWA#58, FHWA#59, FHWA#61] For example:

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm commented that he is not aware of any formal complaint and grievance procedure, and he would appreciate a mechanism for notifying agencies of a prime's failure to pay. [FHWA#11]
- The non-Hispanic white male owner of an engineering firm reported that formal complaint and grievance procedures "are essential to keep everyone out of court." [FHWA#42]
- The Hispanic American male owner of a specialty contracting company reported that formal complaint and grievance procedures would be "one of the best things for small business. Some people will take you to court for anything." [FHWA#40]
- The non-Hispanic white male owner of a specialty contracting company said that formal complaint and grievance procedures are important because "no one wins if you go to court." [FHWA#51]
- The non-Hispanic white male representative of a general contracting company said, "I think [formal procedures are] important and [there] must be a good strong dispute resolution process especially with Caltrans." [FHWA#41]

Some business owners did not find complaint procedures helpful or had no experience with the procedures. [e.g., FHWA#7, FHWA#10, FHWA#19] For example:

- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that formal complaint and grievance procedures are "not worth the hassle." [FHWA#32]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm commented, "to be honest, I don't really complain that often. So, it would be a good thing for people but I think that at the same time, it's not necessarily a good thing because there are some people that complain just to complain." [FHWA#56]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated, "[The formal complaint and grievance procedure] doesn't work. It is like the protest. And it doesn't work." [FHWA#48]

What works well about Caltrans's contracting processes and suggestions for improvement. Some responses were positive, and others were negative. For example:

- The non-Hispanic white male owner of an SBE-certified engineering firm stated, "If an agency like Caltrans would directly approach engineers and smaller firms like us with projects that we would be fully qualified for, it would be really good. When the primes select who they want to work with, obviously they would prefer to work with the companies that they had experience with and they had worked with previously, and had developed a relationship. For a small company like us, being able to get into these projects, public works projects, we would probably stand a better chance if Caltrans was willing to directly work with us or contract with us. Be much more impartial in terms of selecting the firms or qualifying the firms that would be able to provide the services they need. That would be an advantage, I think, for us." [FTA#10]

- When asked about her experience with Caltrans’s contracting processes, the representative of an MBE-certified transportation services firm stated that she had positive experiences. She said, “The people that I met with there, that I used to work with are absolutely fantastic. Everything was laid down. We had meetings so I think everything was well-prepared before the contract started.” [FTA#12]
 - The owner of an engineering firm expressed concern about limitations for minority-owned and small-business enterprises stating, “I think the role of small minority-owned business needs to be broadened.” [FTA-AV#20]
 - The Hispanic American owner of an MBE-certified engineering firm stated, “We have been trying very hard to get in on Caltrans contracts, whether it’s as a prime or sub, and would say it’s fairly difficult because Caltrans is so big and they seem to bypass smaller companies like us. I would like to see an easier process to get contracts through Caltrans. We have the experience, and would really like to work with them.” [FTA-AV#22]
 - When asked if there is anything about the Caltrans contracting process that works well, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm responded, “No, no.” [FHWA#8]
 - The Black American male owner of a DBE- and SBE-certified contracting firm stated that nothing right now is working well with Caltrans’s contracting process for his firm. He explained that it “depends on who you are. If you’re in their system and you’re one of their contractors, then the contracting process is working well.” [FHWA#61]
 - The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm stated the things that work well with Caltrans’s contracting process are “they have a lot of stuff online and I like that. You go in and check what has approved, what is paid, they have their goals, and they have good faith efforts. I particularly like the material on hand because that helps us.” [FHWA#38]
- The same business owner indicated her desire for all agencies to reduce the amount of paperwork required for projects. “We need more online processes.” [FHWA#38]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm when asked about what is working well with Caltrans’s contracting process, explained that “the online resources [which tell] other subcontractors or other suppliers about opportunities [work well].” [FHWA#56]
 - The non-Hispanic white male representative of a general contracting company when asked what works well about Caltrans’s contracting process said that changing to electronic bidding and the dispute resolution board process “is good as anybody is in the industry.” [FHWA#41]
 - The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said, “The [Caltrans] website and the bid opening [works well]. Sometimes it works to where you can listen in on the bid opening; that is how we find out. They have improved that. Before, you would listen to it maybe a couple of days before they released the results. Now it is almost the hour or two later that [you can find out the results]. So, they’ve improved that process.” [FHWA#11]

- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm when asked what works well about Caltrans’s contracting process responded, “[Caltrans] give[s] everybody a lot of time to go through a project, and [one thing] I love about Caltrans is there aren’t many addendums.” She added that Caltrans is “good about advertising [upcoming projects].” [FHWA#22]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm commented, “Well they design highways they’re pretty good about that. They did it one time about ten or fifteen years ago.” [FHWA#45a]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm when asked what works well about Caltrans’s contracting process reported that he has not been actively pursuing Caltrans work for a year, so he cannot speak definitively. He commented that he knows people who actually perform Caltrans work, and he heard that doing business with Caltrans has improved. [FHWA#47]
- The Subcontinent Asian American male owner of a DBE-certified engineering firm reported that he has “had one experience working with the Caltrans [and] it was excellent.” He believes that that Caltrans does a lot to help small business, and he is in “business today because of the job I got with Caltrans. If not for that contract, I think I would be gone.” [FHWA#12]

The same business owner also reported, “One thing good [about Caltrans’ contracting] process is [they] have two places Southern California and Northern California, [where] we submit the bid. [Another] good thing [is that] we can see the bid on time. [Caltrans also has the] Minor B program, that’s also good.” [FHWA#12]
- The Hispanic American female owner of an MBE-certified specialty services firm when asked if anything about the Caltrans process works well said, “There is lots of opportunity and jobs for bid and the process is pretty basic and simple.” [FHWA#5]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business when asked if there are any ways Caltrans can improve their contracting process said, “Don’t make it so complicated.” [FHWA#24]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, “You know, I haven’t had much time for business assistance programs. I wish it was more, it would help us, you know. It helped me to get the minority certification. That was all they had. When it comes to creating jobs, I have never seen any help. Even Caltrans people do not help much. It’s very hard to get to a hold of people, it’s pretty hard.” [FHWA#54]
- The non-Hispanic white male representative of a general contracting firm when asked what works well about Caltrans’s contracting process said, “The movement towards the electronic bidding.” [FHWA#26]
- The non-Hispanic white male representative of a DBE-certified construction-related firm stated that nothing right now is working well with Caltrans’s contracting process. [FHWA#53]

- The Black American male owner of a DBE- and MBE-certified construction company stated that the online advertisement process is working well with Caltrans’s contracting process. [FHWA#60]

One interviewee offered other ideas to encourage small business participation.

- The non-Hispanic white male representative of a general contracting company stated that there may be better ways to encourage participation from smaller firms than the ways currently employed saying, “I’m a firm believer in incentives rather than disincentives.” He added there are numerous public agencies that require that established project goals to be met if you are to be awarded projects. He noted that many times the goals might be difficult to achieve depending on the project; and, in those cases, good faith efforts are not considered. [FHWA#41]

I. Insights Regarding the DBE or SB/DVBE Program or any other Race-/Ethnicity- or Gender-based Measures

Interviewees, participants in public hearings, and other individuals made a number of comments about race- and gender-based measures that public agencies use, including SB/DVBE and DBE contract goals:

- Caltrans or other public agency DBE or SB/DVBE subcontracting goals programs;
- Helpfulness of DBE or SB/DVBE program;
- Business impact of DBE and SB/DVBE programs;
- Reasons not to become certified;
- Effects of changes in DBE program between 2006 and 2008;
- Differences related to FHWA waiver;
- Additional Caltrans or other public agency programs;
- Successes related to DBE or SB/DVBE program;
- Any issues regarding Caltrans or other public agency monitoring and enforcement of its programs;
- Any adverse effects of programs on businesses not eligible for the programs; and
- Any MBE/DBE or supplier diversity programs in the local private sector.

Caltrans or other public agency DBE or SB/DVBE subcontracting goals programs.

Interviewees reported their awareness of or experience with public agencies’ subcontracting goals programs and expressed the importance of goals programs. [e.g., FHWA#14, FHWA#15, FHWA#19, FHWA#22, FHWA#34, FHWA#38, FHWA#39a, FHWA#44, FHWA#46a, FHWA#51, FHWA#55, FHWA#56, FHWA#57, FHWA#61]

- The non-Hispanic white male owner of an SBE-certified consulting firm explained how Caltrans is doing a good job addressing discrimination with the DBE program by stating, “They’ve gotten sued in the past around this issue. They’ve done big studies around this

issue. In general, they're doing a good job trying to address the inequities and all the goals that these programs are attempting to address. They're doing a decent job at attacking it, I think, in the construction realm. I am much less impressed and I think this is a public contract code issue, a state law issue where a professional service doesn't appear to have the requirements, the construction projects due in terms of DBE and DVBE in small business and MBE requirements." [FTA#1]

- When asked if the firm has experience working with public agencies, the Asian Pacific American male co-owner of an SBE-certified electrical contracting firm stated, "We utilize a lot of the networking opportunities that, Caltrans has sponsored, and some of the regional agencies like the Valley Transportation Authorities. We try the networking events that they put together. We network with big generals. We're plugged in through a lot of the special networking type where we come in and see advertisements there. In terms of education, I think Caltrans and those other regional agencies have done a really good job advertising that and some workshops I've attended." [FTA#7]
- The non-Hispanic white male owner of a specialty construction firm said he is aware of DBE subcontracting goals programs. He also stated that he would like to participate in them. [FHWA#37]
- The non-Hispanic white male representative of an SBE-certified engineering firm regarding the importance of subcontracting goals said, "Yeah, I think sometimes [they are a benefit]." He explained that it could be difficult because there are no DBE surveyors in his city. [FHWA#28]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated, "You need to see more federal dollars on the projects. Because that is the only way that [projects are] really going to [reach out to] small businesses. [If prime contractors are] not required to have [DBE subcontractors] they do not do it. So more federally funded projects would really help." [FHWA#48]
- The Native American male owner of a DBE-certified construction-related firm reported that he is aware of L.A. Metro's DBE subcontracting goals program but noted that he has never done business with L.A. Metro. [FHWA#49]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that DBE goals should be mandatory to guarantee that the DBE marketplace actually gets the funds. [FHWA#3]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm reported, "I think that it is positive that [prime contractors] have to use [DBEs because of the subcontracting goals]. Very much so 100 percent." [FHWA#7]

The same business owner added that DBE goals are good for the construction industry because a good percentage of her work is the direct result of her status as a WBE, and she would likely not see that work without the programs. [FHWA#7]

- The Subcontinent Asian American male owner of a DBE-certified engineering firm stated that instead of using "a 10-percent goal, they need to make a set-aside project for the small business." He said that, particularly for smaller projects, the government wastes money on plans when they could just offer the scope of work to small engineering businesses and let

them figure it out. He reported, “There is nothing for the qualified people, like engineers, who want to do construction. [I think providing a scope of work] can save more tax money. It is the welfare of our state and all of the people who are paying a lot of taxes.” [FHWA#12]

- The Black American male representative of a general contracting firm stated that the company emphasizes, “We don’t really care about people’s personal ideas about any law. The only thing that we care about is that they comply with it, or if they can’t comply with it, they let the appropriate person know.” He said, “The Company is very supportive of its obligations under the DBE laws and all of our other similar laws.” [FHWA#26a]
- When asked about DBE subcontracting goal programs, the non-Hispanic white male owner of an architecture-related consulting firm said, “It’s beneficial in the sense it helps level the playing field,” He added, “where I think it gets difficult is when [there are] situations where we are the prime [Local Business Enterprise] on a project.” “We then still need to have LBE subconsultants, some of whom we have to add to our RFP, even if we don’t need them.” He said that it is challenging when the scope is “really not totally clear exactly what it is we’re going into, [and we are required to] throw in consultants and then we’re locked in.” [FHWA#30]
- When asked whether certifying his company as a minority-owned business on certain federal projects has helped his firm, the Hispanic American male owner of a specialty contracting business responded, “We’ve benefited from it, in some cases well, I guess it would be financially because we’ve been successfully awarded a project. I’ve never been told specifically that it’s because we brought a minority or small business status to the table per se, but it certainly was looked at favorably.” [FHWA#9]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company reported that he felt that strict adherence to a set formula rather than looking at each project individually leads to some projects not having the best contractors for the job. He said, “[The DBE goal is] just a formula; and that’s where I think it gets lost.” He added, “They are hiring based so they can have equal opportunity. I’m all for equal opportunity and I’m all for bringing disadvantaged to the forefront. They put this rate of 5 percent or whatever. Well, when you’re grading between me and, say, a Hispanic-owned company, I lose because the percentage is so variable that they’re not putting the emphasis on longevity; they’re not putting the emphasis on experience.” [FHWA#29]
- The female representative of a CUCP WBE-certified specialty construction firm reported that her company sometimes receives requests for bids because they are a woman-owned firm. She said, “Every once in a while, we’ll get someone who will call and say, ‘Are you woman-owned?’ ...we will say, ‘Yes.’ They will say, ‘Okay. Can you bid this because I need five percent of my bid to be a woman-owned [company]?’” [FHWA#16]
- The Black American male owner of a DBE- and MBE-certified construction company commented that he thinks the goals programs are good but that “not all opportunities are good for one reason or the other. It may be the contractor, the available sub work, or the length of the contract that may not be appealing. So, although the goals are there, the conditions of the contract and that alignment may not be good for business.” [FHWA#60]

Some interviewees reported little or no awareness and experience with public agencies' subcontracting goals programs or offered mixed views. [e.g., FTA#4, FHWA#31, FHWA#35, FHWA#40, FHWA#43, FHWA#45a, FHWA#53] For example:

- The non-Hispanic white male owner of an SBE-certified specialty consulting company stated that he thought DBE subcontracting goals programs were good but said, "I don't know what the purpose of the whole thing is, you know. Is it because they want small businesses to have more of the work or is it because that they're under some mandate to do it? You know, it seems to me like it's all about the mandate to get that done." He said that because it seems like the DBE program only exists because it is required, prime contractors are not truly committed to meeting DBE goals. [FHWA#17]
- The Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm supported DBE subcontracting goals but said that they are not enforced strongly enough. She said, "In the area that my firm does most of its work, the public sector has set percentages for minority subcontracting If you do not comply [your] proposal is non-responsive. They have a good program, but they are not that strong, they are not that forceful." [FHWA#50]
- The non-Hispanic white male representative of a general contracting company said, "[The DBE/SBE/DVBE program] has not affected us negatively because we have figured out early on that we've got to do this." He added, "There have been times when other [companies] have not [properly satisfied DBE bidding requirements]. They have had issues when we have gotten the project because we were next in line. We have [also] lost some [bids] because we didn't have things right either." [FHWA#41]
- The non-Hispanic white male owner of a specialty construction firm stated, "I mean, for me I think it costs a lot of money to oversee things like that. I do not know. It does not matter what your race is but I do not know. I am kind of old school. I just feel you know, 'let me have the opportunity, but don't give me any special [treatment].'" [FHWA#18]

Some reported benefitting, or expecting to benefit, from DBE or SB/DVBE contract goals. [e.g., FHWA#12, FHWA#15, FHWA#39a, FHWA#50] For example:

- The non-Hispanic white male owner of a specialty construction firm stated that DBE, SBE, and DVBE programs could "make some firms millionaires overnight if they can get in and perform the work. It could be huge [for those firms]." [FHWA#37]
- The Native American male owner of a DBE-certified construction-related firm when asked if the DBE program been helpful to his firm said, "Not yet but I have hope." [FHWA#49]
- When asked if the DBE program has ever been helpful to her firm, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm said, "Yes, [the firm] would never have been involved in public works projects without the DBE program." She remarked that had a prime not brought the program to their attention they would not have known about it. [FHWA#3]

The same business owner reported that, presently, thirty percent of her firm's opportunities come from their DBE designation. It "gets them in the door." [FHWA#3]

- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said the DBE program has been helpful to his firm but only in the public sector. [FHWA#47]
- The owner of a WBE-certified transportation firm reported, “It helps me get work out there because I’m a WBE-certified [firm]. People will take bids from me and give me work if I have that [certification]. That’s important to a lot of prime contractors.” [FHWA#34]

Some interviewees felt that race- and gender-based programs were little to no help to them even though they participate in them. For example:

- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported that her firm’s WBE certification has been only moderately helpful in securing opportunities for her firm “because [the certification is for work mostly done] in the private sector [due to license limitations], I haven’t had too many [opportunities from it]. But I know that if I would have had [a WBE certification] more for the commercial [sector], I would have been able to really take advantage of it.” [FHWA#13]
- The Black American male owner of a DBE- and SBE-certified construction-related firm reported that prime contractors could often fulfil their DBE requirement too easily. He stated that primes will “hire one trucking company, and maybe one other supplier, and then their [DBE] requirement is met. So, they don’t need anything else. They don’t need me.” [FHWA#19]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm when asked if the DBE program has been helpful to the business stated, “I am never sure. Honestly, I think I’m about even now for how much money I’ve lost versus how much money I’ve made.” [FHWA#22]
- The Black American male representative of a minority trade organization stated, “A lot of people can be certified as DBE but they choose not to. [Many] Black truckers do not care for those programs. The bottom line is [that] it is a game. This is just like Vegas. It is designed for [the agencies] to win or whomever they want to win. It’s designed for us not to win.” [FHWA#52]

Some interviewees were critical about key aspects of the implementation of the Federal DBE Program. For example:

- When asked what he thought about the DBE program the non-Hispanic white male owner of an SBE-certified consulting firm stated, “Personally, philosophically, politically, there were points in time where I thought that it would be better if the states just gave these people money and let the quality remain and kept the problem folks out of the business so that the state and all the citizens would get a better job, and it would probably be cheaper. I recognize the need for programs like this and I recognize the economic benefit that small businesses have. I quaff the meeting of those needs but there were definitely people who took advantage of the system and really were not good eggs. It’s almost as if the DBE and DVBE programs need a quality assurance component. The state is giving them this big leg up by giving them this certification and so if these companies aren’t performing well,

maybe they have to go on parole for a while. There are problems within the system and some people definitely are slacking and taking advantage.” [FTA#1]

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm when asked if the DBE program has ever been helpful to his firm responded “No.” [FHWA#8]

The same business owner expressed his thoughts about preference given to DBE firms over the DVBE firms stating, “DVBEs should have preference over everybody. They are military people, they gave up part of their life, they went and fought some stinkin’ war and most of them never do any good. Still, they did that, and now they come back and they are DVBEs and they have to stand in line behind the DBEs. That’s bad.” [FHWA#8].

One firm recommended that good faith efforts no longer be considered an acceptable substitute for DBE participation.

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that Caltrans should “eliminate good faith effort because the good faith effort is just [unfair].” [FHWA#10]

Some had comments on others programs, including small business and veterans’ programs.

- The non-Hispanic white male owner of a specialty contracting business reported that Alameda County has a program where he can take five percent off the bid if he has minority employees. [FHWA#31]

Helpfulness of DBE or SB/DVBE program. Some interviewees commented on the helpfulness of the programs.

Several interviewees reported that their firms have been helped by DBE, WBE, or SB/DVBE programs. [e.g., FHWA#11, FHWA#12, FHWA#17, FHWA#28, FHWA#38, FHWA#39a, FHWA#45a, FHWA#53, FHWA#55, FHWA#56, FHWA#57] For example:

- The Black American male owner of a DBE-, MBE-, SBE-certified specialty construction firm when asked if the DBE program had been helpful to his business stated, “Absolutely, absolutely because there’s no way I’d be here if it wasn’t. It has worked and it does work.” [FHWA#10]
- The Hispanic American male owner of a DBE-certified construction firm reported, “I think it’s very important for the program for minority and women and to keep the program going so we are successful. It’s good for everybody, because it’s not only one group of people that’s getting the pie, but it spreads it out...with all races...not just one.” [FHWA-PF#14]
- When asked if certification has been helpful to her firm, the non-Hispanic white female owner of a WBE-certified specialty construction firm said, “I would say a pretty good amount. I don’t know (the) percentage, but [it is] a pretty good amount. When you’ve been in business as long as I have, you don’t really pay attention to that because you have your customers that will stick with you. You’ve built relationships with companies and those are

the companies you see the most of. But I know that it does help if they need a WBE.” [FHWA#7]

- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm stated that the DBE program has “been hugely helpful for us.” He said, “We’ve gotten a lot of work just because of [our DBE certification]. We definitely took full advantage of it. [If jobs] didn’t have a DBE goal, we knew we were just not going to be in the running for something.” [FHWA#23]
- The Black American male owner of a DBE- and SBE-certified construction-related firm indicated that the DBE program was critical to the firm “in the beginning.” He said he still gets work from the DBE program but that it alone is not “substantial enough to maintain a business [anymore].” [FHWA#19]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company stated, “There are some benefits [to being SBE certified] but it isn’t something that’s make-or-break.” [FHWA#29]
- The non-Hispanic white male owner of an SBE-certified consulting company said that his firm has not won any work as a prime specifically because of the SBE program but noted that his firm receives invitations to team up with other firms for work because of the SBE certification. [FHWA#44]
- Regarding helpfulness of the programs, the Black American male representative of a minority trade organization responded, “To some extent yeah, it has been for some.” [FHWA#52]
- The Hispanic American male owner of a DBE- and MBE-certified specialty contracting company reported that the DBE program had been helpful to his firm saying, “It gave us a place to start, a place to plant our feet and move forward. Other than our connections, we were reaching out to people and they wouldn't give us the time of day sometimes but [after engaging with the DBE program] they at least listened to us. Yeah. Even if they didn't use us, they knew we were out there.” [FHWA#46a]
- The Black American male owner of a DBE- and MBE-certified construction company reported that the DBE program has been helpful and has offered him a lot of opportunities, some that he was not able to capitalize on. He added, “I think there’s a few things that can be done to it to make it better.” [FHWA#60]

A few interviewees said participation in the DBE or SB/DVBE programs has not helped their business, or helped only slightly. [e.g., FHWA#32, FHWA#39a, FHWA#48] For example:

- The representative of an MBE-certified transportation services stated that the certification has not been particularly helpful in obtaining work. She indicated that the certification did not make much of a difference. Regarding obtaining work, she said, “60% [of getting the work] is on price, 20% is on equipment and [certification is] maybe 5% of that. It's really isn't even a factor.” [FTA#12]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that he was aware of supplier diversity programs in the private sector, but that his attempts to connect with them had gone unanswered. He said, “I have reached out to

several major hotel groups because they have supplier diversity programs. I have reached out to major medical groups that have supplier diversity programs and attempted to make contact and register with whatever [program] they have. But, so far, I think I've gotten zero response." [FTA#15]

- The Hispanic American male owner of a DBE- and MBE- certified supply firm reported, "The DBE-program has not helped us at all. Zero." [FHWA-PF#1]
- The Black American male owner of a DBE- and SBE-certified contracting firm responded that the DBE program is no longer helpful to his firm. He said, "It's not helpful because it hasn't been like implemented properly. If I just say that, it is not helpful that could lead to believe that it is [unnecessary], but it is. The need is there." He said that the DBE program is unhelpful because prime contractors abuse the good faith efforts process instead of hiring DBE-certified subcontractors. [FHWA#61]
- The female owner of a DBE-certified specialty transportation firm reported challenges she has faced with lack of communication and follow-up assistance from the DBE Program. She remarked that once she had the certification, she was unable "to get information on what to do next." [FHWA-WT#26]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm commented, "I don't know. I cannot say yes. But I don't want to say no either." He added, "I haven't had any jobs from DBE certification." [FHWA#54]
- The Hispanic American female representative of a DBE-certified firm commented, "For me it [has] been so hard. I want to bid but I don't know how to do it and win." [FHWA-WT#5]
- The male representative of a certified specialty service firm commented, "I am finding disparity a lot, I have most of the certs, but I almost never get the bid." He attributes this to a pre-existing preference on the part of the client to work with certain companies. [FHWA-WT#4]

Business impact of DBE and SB/DVBE programs. For example:

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm noted that DVBE certification affects his business. He said, "There have been opportunities that I would never have gotten without that designation." [FHWA#45a]
- The Native American male owner of a DVBE-certified transportation firm indicated he has been able to grow his business in a short amount of time by "hustling and going after that [DVBE] work." [FHWA#57]
- The Black American male owner of a DBE- and SBE-certified contracting firm indicated that at one time, the DBE program enhanced his business. He noted that he could respond to bids and satisfy the DBE goal 100 percent because he was certified. [FHWA#61]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm when asked how the DBE program impacts her firm's business said, "Oh, positively, 100 percent." She added, "Bigger corporations will not give you the time of day unless you have that certification. Two companies specifically wanted to use us

because of our DBE [certification]. Now, they kept using us because of our customer service and our DBE [status].” [FHWA#56]

- The non-Hispanic white male owner of a specialty construction firm said that he would have pursued DBE certification if it were more readily available. He stated that he would like his wife to become certified. [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm indicated the DBE and SBE program affected her firm positively. She noted that the certification has helped to get more business. [FHWA#39a]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm said that a “good percentage” of her work is directly attributable to the DBE program. [FHWA#7]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm stated he would prefer to receive business because he is a good contractor rather than because his company is certified as a DBE. [FHWA#47]

The same business owner reported that prior to certification he would get requests for bids but was asked if his firm held certification as a DBE. When he said his firm was not certified, the responses would be “sorry we are only looking for certified firms.” [FHWA#47]

- The non-Hispanic white male representative of a general contracting firm noted that the DBE program is “part of our competitive landscape, so I cannot really say that it has affected the business positively or negatively. I mean, everyone who wants to do public work is kind of on the same playing field.” [FHWA#26]
- The Black American male owner of a DBE- and MBE-certified construction company stated that the DBE program opened the doors to bid on certain jobs. He said, “I would not have had the opportunity to bid on some of the projects without certification.” [FHWA#60]

A few Business owners and representatives reported no impact on their firm from DBE or SB/DVBE programs. [e.g., FTA#4, FHWA#53] For example:

- The Black American female owner of a DBE- and SLBE-certified construction-related business stated, “It really doesn’t. It does not bring any business in. It brings a lot of inquiry into, ‘can you bid on this’ and then, when I send them my rate, more than likely they’ll ignore my bid.” [FHWA#48]

Reasons not to become certified. Several interviewees reported choosing not to pursue DBE or SB/DVBE certification, or are ineligible and discussed their reasons. [e.g., FHWA#31, FHWA#52] For example:

- The non-Hispanic white male owner of an SBE-certified engineering firm stated, “We have registration with the [a California County] and we also have a registration with [the]small business enterprise of California, State of California. But we are not a minority. We are not determined to be minority, apparently, because of my ethnicity. I can say my ethnicity is Iranian and apparently the Iranian Americans, they have not applied for the minority status for some reason. I have no idea what the reason [is].” [FTA#10]

- The non-Hispanic white male owner of a specialty construction firm commented because “I’m a white guy. I’m supposedly, I have all the advantages there are.” [FHWA#18]
- The Subcontinent Asian American male owner of an architecture and design firm said that his firm chose not to proceed with certification because they “learned that even if you have the DBE designation, without the past public works experience, it won’t help that much.” [FHWA#6]

The same business owner indicated that the firm received MBE-approval, but they never paid the fee to complete the certification. He repeated that he does not see the point of gaining certification since public agencies want firms to have prior experience with that specific agency. [FHWA#6]

- When asked why he has not sought DBE certification, the Black American male owner of a specialty contracting business reported that he has not felt he needed the certification so far. He said, “I’ve always known that there was [a] program and I understand why [it was] established.” [FHWA#27]
- The non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider said, “DBE certification isn’t something they are interested in because that’s not the type of work they do.” [FHWA#21]
- The Hispanic American male owner of a specialty construction company stated that DBE certification has not been necessary for his firm. He said that his firm is “always busy and not looking for more work.” [FHWA#40]
- The Hispanic American male owner of a specialty contracting business when asked why his firm has not applied for state DBE certification stated that it is due to “lack of time. [The DBE certification process is] a little cumbersome. I think because of the stigma that is associated with the [DBE certification] process it makes it something that gets put on the shelf.” [FHWA#9]

Effects of changes in DBE program between 2006 and 2008. The study team asked interviewees whether they had experienced any positive or negative changes when Caltrans discontinued setting DBE contract goals in 2006, or when they restarted setting goals on federally funded construction contracts in 2008.

Some interviewees reported negative experiences following the 2006 change or noticing positive changes in 2008. For example:

- When asked if she had noticed any effects from changes in the Caltrans DBE programs in 2006 and 2008, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm stated that there was a “huge lull in opportunities” during this time. She reported that the changes, in effect, created a “good ol’ boy” network. [FHWA#3]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm when asked if she had noticed any effects from changes in the Caltrans DBE programs in 2006 and 2008, not remembering in detail, reported that this might have been about the time

that “things got tough for a while.” She added that this might have been during the time they lost their certification and had to reapply. [FHWA#7]

- The Hispanic American female owner of an MBE-certified specialty services firm when asked for any positive or negative effects from changes in Caltrans programs in 2006 and again in 2008, said she remembers that before the discontinuance of the DBE program her firm had already started the application process. She reported that when the change went into effect, she decided against pursuing the DBE certification because it was pointless. She subsequently moved forward with an application with the reinstatement of the program. [FHWA#5]
- The Black American male representative of a general contracting firm reported seeing “a big difference. We work all over the country, and Florida has what we call a race neutral program, which is what California went to in that three-year period. It’s much more conducive to doing work and getting everything done on a partnership basis.” He said the company continues the mindset “that we want to help small businesses. So, like, in Florida we always report and do enough DBE credits so they’re staying race neutral.” [FHWA#26a]

Many interviewees reported experiencing little difference or not noticing the changes in 2006 and 2008. [e.g., FHWA#23, FHWA#39a, FHWA#41, FHWA#45a, FHWA#46a, FHWA#47, FHWA#48, FHWA#49, FHWA#51, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#59, FHWA#60, FHWA#61]

- The non-Hispanic white male owner of a specialty construction firm stated he was not aware of any effects from changes in Caltrans programs in 2006 or 2008. [FHWA#37]

Difference related to FHWA waiver. The study team asked interviewees if they experienced any changes in 2008, when Caltrans implemented a waiver that did not include Hispanic- and Subcontinent Asian-American DBEs as counting toward DBE contract goals on federally assisted transportation contracts, or in 2012 when Caltrans began including all certified DBEs in DBE contract goals.

Many interviewees reported seeing little or no difference resulting from the FHWA waiver or being unaware that there had been a waiver. [e.g., FHWA#22, FHWA#39a, FHWA#41, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#56, FHWA#59, FHWA#60, FHWA#61] For example:

- The Black American male representative of a general contracting firm stated about the FHWA waivers, “I think [it] was a bogus excuse, personally.” He said, “They’re either DBE or they aren’t.” [FHWA#26a]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm reported that she was aware of the waiver. She noted, “I know that sometimes funding is what kind of drives the program. So there [are] little requirements in like to certified payroll stuff but in general I don’t see much difference when there is federal money.” [FHWA#38]
- The non-Hispanic white male owner of a specialty construction firm stated he was not aware of any differences related to FHWA waivers. [FHWA#37]

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm said that her firm did not feel the impact because her WBE designation “took the place” of the MBE opportunities. She said that holding diverse certifications replaced opportunities taken away by the FHWA waiver. [FHWA#3]

Some interviewees did report experiencing a change in business as a result of the FHWA waiver. [e.g., FHWA#19] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm, stated, “Before Caltrans changed from UDBE to DBE the tables were stacked a lot more in favor of real small businesses. Now I think any DBE company can have gross annual receipts of \$16 million or something. What small company has gross receipts of \$16 million. [I think] that number has to be much lower. That number should honestly be right around \$5 million a year.” [FHWA#10]

The same business owner reported that, prior to the change to the DBE program, the “UDBE program was really difficult for [prime contractors] to get around because the dollar limits were so low, so they had to try to do something. But then that also encouraged a different type of behavior you know, where they would actually hire [Black Americans] and put them at a card table and sit them out in front of a job site. I have seen that happen in San Francisco. It was the most disgusting thing I’ve ever seen. So, when they went to DBE, it raised the number up a lot so now they can compile and get their good faith effort.” [FHWA#10]

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported that when Caltrans was using UDBEs, “It seemed like there were firms that somehow went from a DBE to a woman-owned business it seemed like we lost quite a bit of business. And then when they [changed from UDBE back to DBE], our percentage of work went up tremendously.” [FHWA#11]

Additional Caltrans or other public agency programs. Interviewees were asked if they had any knowledge or experience with other race/gender-conscious programs administered by public agencies.

Most interviewees reported little or no experience with other programs. [e.g., FHWA#43, FHWA#45a, FHWA#51, FHWA#53, FHWA#54, FHWA#59] For example:

- The non-Hispanic white male owner of a specialty construction firm stated he was not aware of any additional Caltrans or other public agency programs. [FHWA#37]
- Regarding DBE programs from other public agencies, the Black American male representative of a general contracting firm reported awareness of, but little knowledge of, other DBE programs. He mentioned, “We have some municipalities that we’ve dealt with like Los Angeles County that have their own programs and then the utilities have their own program.” [FHWA#26a]

A few interviewees reported experiences with other programs. [e.g., FHWA#47] For example:

- The Hispanic American male owner of a DBE- and MBE-certified supply firm reported, “The certification that helped us was the PUC, Public Utility Commission.” [FHWA-PF#1]
- The Hispanic American male owner of a DBE- and MBE-certified construction-related firm reported that he was aware of the former “Registered Environment Associated Program.” [FHWA-PF#13]

The same business owner complained, “they eliminated that program. No hearings were held; no testimony was ever delivered. It was done by the director of that government agency. That’s a disparity and discrimination.” [FHWA-PF#13]
- The Black American male owner of a DBE- and SBE-certified contracting firm noted that he was aware of the DVBE program. [FHWA#61]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm noted she was aware of the DVBE program. She explained, “I like the programs and people at Metro. They are helpful.” [FHWA#38]
- The Black American female owner of a DBE- and SLBE-certified construction-related business reported knowledge of the “City of San Diego” as another public agency DBE program. [FHWA#48]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that she was aware of the DVBE program. [FHWA#55]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm when asked about knowledge of any other Caltrans or other public agency programs for disadvantaged businesses stated that “I know some local agencies do have their own slightly different [programs], but we don’t deal with those agencies.” [FHWA#23]
- Regarding any other programs, the non-Hispanic white male representative of an engineering firm reported, “My understanding is that our company doesn’t qualify for the Small Business Administration, as it’s defined for California. It has something to do with us also having our headquarters in [another state] and not here in California.” [FHWA#33]
- The non-Hispanic white male representative of a general contracting company when asked if he is familiar with any other Caltrans or other public agency DBE programs said, “We’re familiar with the city of Los Angeles, Port of Los Angeles, the Port Long Beach, Los Angeles Airport Authority, and the County of Los Angeles.” He went on to say, “All of these public agencies all have a little different program. They’re not all exact, but they are closer aligned.” [FHWA#41]
- The Black American male representative of a minority trade organization reported knowledge of other programs stating, “Metro’s program is pretty good. Metro has that CUF [Commercially Useful Function] that is good.” [FHWA#52]

Successes related to DBE or SB/DVBE program. Interviewees reported successes related to DBE or SB/DVBE programs.

Many business owners and representatives who had participated in DBE or SB/DVBE programs reported experiencing successes or having knowledge of successes within the programs. [e.g., FHWA#5, FHWA#15, FHWA#38, FHWA#39a, FHWA#47, FHWA#52, FHWA#55] For example:

- The non-Hispanic white male representative of a general contracting company stated that he has no personal experience with successes related to DBE or SB/DVBE program. He said, “I’ve worked with a few project managers and watched them grow up out of the program, and become good businessmen. Unfortunately, it’s gotten harder for these emerging contractors, because the industry is changing. It’s tough out there.” [FHWA#41]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, “[DVBE-certification is] a tremendous resume builder. You are included in work functions that you would never get a prime contract for.” He also said, “If DVBE is required by the prime contract, we are included.” [FHWA#45a]
- When asked about DBE or SB/DVBE program successes, the Hispanic American male owner of a DBE- and MBE-certified specialty contracting company stated, “I’m not sure we’d still be in business without it.” [FHWA#46a]

Several interviewees reported not being aware of any successes related to the DBE or SB/DVBE programs. [e.g., FHWA#48, FHWA#49] For example:

- The non-Hispanic white male owner of a specialty construction firm stated he was not aware of any successes related to DBE or SB/DVBE programs. [FHWA#37]
- The non-Hispanic white male owner of an SBE-certified consulting company said that his firm has not experienced success through these programs; however, he reported that he does receive project notifications. [FHWA#44]

Any issues regarding Caltrans or other public agency monitoring and enforcement of its programs. Some interviewees had comments regarding the implementation of the DBE or SB/DVBE Program, including false SB/DVBE or DBE reporting by prime contractors or abuse of “good faith efforts” processes, “fronts,” and “pass-throughs.”

Several interviewees reported that monitoring and enforcement of SB/DVBE and DBE programs is satisfactory. [e.g., FHWA#46a, FHWA#47, FHWA#53, FHWA#57] For example:

- The non-Hispanic white male owner of a specialty construction firm stated he has a certified MBE colleague who went through the certification process; and, based upon what he heard, there is front-end enforcement and ongoing enforcement for the MBE program. [FHWA#37]
- The non-Hispanic white female owner of a DBE-certified consulting firm stated that it is nice to know the agencies monitor and enforce the programs. [FHWA#39a]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm commented that public agency monitoring and enforcement of the DBE program, specifically the “LCP tracker” [that tracks DBE payments] is “really cool.” [FHWA#38]

Some business owners commented that Caltrans’s monitoring of the programs is unsatisfactory, causes challenges, or is so inactive that they are unaware of monitoring at all. [e.g., FHWA-WT#6, FHWA#19, FHWA#22, FHWA#49, FHWA#50, FHWA#51, FHWA#52, FHWA#55, FHWA#59, FHWA#60] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated, “If [Caltrans and other public agencies] were monitoring and enforcing [the DBE program] the way it should be, then we would have a little higher success ratio in the amount of work we bid versus the amount of work we get. Because these guys are all going to figure out a way to get around it; they always have and they always will. That way they can just use the good ol’ boy network.” [FHWA#10]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm reported, “I’m sure they do have something, but it’s not working.” [FHWA#54]
- The Black American male owner of a DBE- and SBE-certified contracting firm said that he was aware of the good faith effort as the method for monitoring and enforcement of the DBE program. He added that the contractor “is basically just waiting for the agency PM to say ‘[meeting the goal] is not important, just make the good faith effort.’ They use the promotion of meeting the good faith effort [more] than actually the enforcement of it.” [FHWA#61]
- The Black American female owner of a DBE- and SLBE-certified construction-related business reported, “They don’t [do monitoring]. They only say they don’t have enough employees and they don’t have money to do it. So, they don’t go and monitor. They do not do monitoring. They claim they do but they don’t.” [FHWA#48]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm reported in reference to public agency monitoring and enforcement of its programs, “I haven’t seen one piece of evidence that [public agencies] do monitor [DBE and SB/DVBE programs].” He commented, “One time, [agency staff] checked on a project that [a prime] put me down for and I said I have no clue who [the primes] are.” [FHWA#45a]
- The non-Hispanic white male owner of an SBE-certified consulting company commented that he is aware that his local municipality monitors projects, but he is not sure if there is any enforcement. He added that agencies should find better ways to “quantify how the [subcontracting] goal is being achieved and hold the primes more accountable.” [FHWA#44]
- The non-Hispanic white male representative of a general contracting firm reported that agencies do not monitor DBEs after they are certified. He said, “It almost seems like the onus of [ensuring DBEs are not fronts] is put on the contractors.” He said they do not see it “a lot, but we see it. That is why our program is so strict on our [workers] in the field making sure, they are performing before we claim credit for them. [The] problem is, once we find out they are not [a true DBE] we go to Caltrans and [report the DBE and Caltrans tells us we] have got to claim [the DBE for] credit or be fined.” [FHWA#26]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm said, “I’ve never really seen [a public agency] do any monitoring and enforcing.” [FHWA#23]
- The president of a DBE-, SBE-, and MBE-certified engineering and construction firm said that he has experienced discrimination from public agencies but that the discrimination is “hidden behind unenforced federal DBE requirements and so-called goals.” [FHWA-WT#11]

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm expressed that he feels like sometimes the DBE program is not enforced and needs improved monitoring by Caltrans. He said that there are firms doing work that would be difficult for small businesses to do. He commented, “[There are] a couple firms that it seems like the amount of monies that they’ve been awarded and the amount of work [that they do] how do they keep [the DBE] status?” [FHWA#11]
- When asked to comment on his firm’s experience with public agency monitoring and enforcement of its DBE/SB/DVBE programs, the non-Hispanic white male representative of a general contracting company said, “We do not like anything that is a ‘gotcha’ moment. We like to have people work alongside of us and say, ‘I think we’re getting a little bit off the highway here.’” He added, “We try and set up and talk about relationships so that [agencies] can talk [with us] and we don’t later get a bunch of fines rather than get a phone call saying, ‘You’re getting a little sideways here,’ or whatever it might be, ‘What can I do to help?’” [FHWA#41]

One firm found good faith efforts of primes helpful to securing opportunities.

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm said they find out about some job opportunities “when contractors are sending out the good faith efforts because they’ll list a contract. [We look at the bid items, and] if there is any [materials we supply] we will check it out. [Sometimes we] get new work [from] these good faith efforts.” [FHWA#11]

Some reported experience with or knowledge of false reporting of DBE and SB/DVBE participation or falsifying good faith efforts. [e.g., FHWA-WT#7, FHWA-WT#15, FHWA#12, FHWA#14, FHWA#15, FHWA#52, FHWA#54, FHWA#56] For example:

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that they had problems with the Los Angeles Department of Water and Power (LADWP) and the City of Los Angeles but did not elaborate on the nature of the problems [with enforcement]. [FHWA#3]

The same business owner commented that her firm had good experiences with Los Angeles Metro, specifically in working with a large and well-known prime contractor. She attributes Metro’s success in this area to accountability. [FHWA#3]
- The Black American male owner of a DBE- and SBE-certified contracting firm said that the DBE program is no longer helping his firm because prime contractors are abusing the good faith efforts process. He said, “The problem is that the contractors that are getting the jobs have found a way to circumvent using a DBE. They just put out a good-faith goal, send you a fax and say you didn’t respond.” [FHWA#61]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that eliminating the good faith effort and creating a mandate, “‘This is what it has to be’ is really the way to [make it fair].” [FHWA#10]

The same business owner reported that many large prime contractors give the appearance of making good faith efforts but rarely actually employ DBEs. As an example, he said that he

had received an email notification regarding “a huge job and everybody is sending out all the affidavits and having meetings. It’s all good faith efforts. None of these guys will use us but they canvass everywhere with good faith.” [FHWA#10]

- The Black American female owner of a DBE- and SLBE-certified construction-related business reported that she believed her firm was listed on a winning bid but received no work on the project. “I received an e-mail from a Caltrans worker saying that he was EOC and he was contacting me to verify that I have worked on a project. I said, ‘What are you talking about? Send me the information’ and quickly he started changing his mind, ‘Oh, that’s not what I meant. No, I didn’t mean that you were out on the project.’ ‘What did you mean? Because what you said to me implied that this man listed me in this bid and I didn’t get out on the project.’” She added that it seemed that a firm listed her company in its bid but then did not offer any work. [FHWA#48]
- The Hispanic American male representative of a DBE- and SBE-certified woman-owned engineering firm when asked about abuse of the good faith efforts process stated, “That I think happens a lot.” He said he receives “tons of faxes,” and many are for work they do not perform. He said, “We’re on the list because we’re a DBE [and] they can look us up, [but] a lot of times it just seems like they just want to have us checked off on the list that they’ve reached [us].” [FHWA#23]
- The female owner of a DBE-, WBE-, and SBE-certified consulting firm reported that firms contact her sometimes, inappropriately, to be on their teams. She commented that when she returns the calls from other firms soliciting her for their team, they do not call her back. [FHWA-PF#5]

The same business owner said, “as far as the agency is concerned as long as they’ve made a phone call, they have satisfied the requirements. I’m sure that’s not really what the goal of having a DBE is.” [FHWA-PF#5]

She added, “I would hope to see higher DBE goals and more policing.” [FHWA-PF#5]

- The male representative of a DBE-, MBE-, and SBE-certified technology-related firm expressed concerns that there is limited feedback and communication from public agencies. In addition, he expressed concerns with barriers that he faces with good faith efforts of larger firms. [FHWA-PF#6]
- Regarding the good faith efforts process, the non-Hispanic white male owner of an SBE-certified consulting company reported, “We get these phone calls and faxes [from primes performing good faith efforts] all the time.” He said that he is aware that primes need to document that they reached out to firms to document attempts to include certified firms but went on to say that the information the primes provide potential subcontractors many times does not have enough project information for his firm to make a decision to bid. He added that when he contacts the person listed as the point of contact the person either cannot answer technical questions or is never available. He said, “It’s all a game.” [FHWA#44]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm when asked about abuse of the good faith efforts process reported “90 percent of the jobs I get invited to be for [services her firm does not perform].” She said

there are a couple companies that “just write down my name [on good faith efforts documentation]” and do not ever contact her. [FHWA#22]

- The non-Hispanic white male representative of a general contracting firm reported that abuse of good faith efforts happens. He said that his firm has lost work to competitors who used a DBE who they know does not perform a commercially useful function. “And yet the low bidder claims that he can use that guy and get credit for it. And we know the guy can’t perform a function, but they get the project.” [FHWA#26]
- The Black American male representative of a general contracting firm noted that what constitutes good faith efforts “varies by region.” [FHWA#26a]
- Regarding meeting goals and good faith efforts, the Black American female representative of a trade organization said, “do [firms] continue to look to meet that number, or do they just fill it how.” [FHWA-PF#3]

The same representative of a trade organization, regarding good faith efforts said, “I hate that term so much.” [FHWA-PF#3]

- The Black American male owner of a DBE- and SBE-certified construction-related firm reported that when he first started the business, he would get last minute calls to submit bids. They would say they needed me “to send [a bid] in right away [because they only had a few minutes left]. They got the bid, and they did not even use me for hardly any of the work. [I] helped them get the bid, and then I didn’t really see anything from it.” [FHWA#19]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company remarked that prime contractors do not make much effort to satisfy good faith efforts. He stated that prime contractors “just have to show good faith effort that they tried to get somebody. But, you know, they can make up whatever reason they want for the reasons they didn’t get somebody. I don’t think there’s any real rule other than saying, we made a list. We contacted these people.” [FHWA#17]
- The Black American male owner of a DBE- and MBE-certified construction company stated that he was aware of some abuse of good faith efforts. He said, “One thing I resent is a person contacting me for a job a week before it bids. Then they’ll call you and ask you your name and ask are you interested in bidding on the job. Of course, your response is no.” [FHWA#60]

Many interviewees reported no knowledge of abuse of good faith efforts. [e.g., FHWA#11, FHWA#12, FHWA#13, FHWA#20, FHWA#23, FHWA#39a, FHWA#41, FHWA#42, FHWA#45a, FHWA#47, FHWA#49, FHWA#51, FHWA#55, FHWA#59] For example:

- The non-Hispanic white male owner of a specialty construction firm stated he was not aware of any false DBE reporting or abuse of the “good faith efforts” process. [FHWA#37]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm stated that she does not see any abuse. She replied, “I get a million of those emails [from prime contractors attempting to satisfy good faith efforts requirements], maybe a million and half. They do their diligence. I know all the trade DBEs and I don’t know about other trades but I don’t see monkey business in what they do in my trade.” [FHWA#38]

DBE or SB/DVBE “fronts” or fraud. Interviewees from a diverse range of experiences and opinions commented on “fronts” or fraud. Some gave first-person accounts of instances they witnessed. [e.g., FHWA#56, FHWA#61] For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported that there seems to be abuse with DVBE-certified firms. He commented, “They don’t scrutinize them at all. There’s no scrutiny on them whatsoever, they can pretty much do whatever they want to do and not have an issue. I contacted the State of California Department of General Services about that because I know the kind of [scrutiny] that I go through as a DBE.” [FHWA#10]

The same business owner added that there is a discrepancy with DVBEs. He remarked that there are “DVBEs working on Caltrans jobs and no one scrutinizes the work. They don’t maintain commercially useful function.” [FHWA#10]

- The owner of a WBE-, SWBE-, DBE-, and SBE-certified construction-related firm reported experience with an “unholy increase in the number of firms dominated by men who have assigned 51 percent of the company to their wives/girlfriends to attain WBE status it’s all legal, but it isn’t fair.” [FHWA-WT#15]
- The Black American male representative of a general contracting firm said it is a problem when the owner of a “woman-owned small business is not very involved in the business. We have an extensive program to find out if the DBEs are operating the companies and doing the work themselves and not getting help from someone else. Because we can’t afford to have a DBE that we’re getting credit for that isn’t doing the work.” [FHWA#26a]
- The Black American female owner of a DBE- and SLBE-certified construction-related business stated, “I have heard of how white men are using their wives to certify and [the] wife does not know anything about what’s going on but he is the day-to-day person so they are getting contracts because of the wife. It’s the woman-owned business.” [FHWA#48]
- The non-Hispanic white male owner of an engineering firm reported that he has a friend who is in business and gave his wife majority ownership in the company. He said that the company is a “woman-owned business,” and the company has received numerous contracts. He added, “I just don’t think that is right.” He says, “They are married she knows nothing about the business!” He continued by saying “that goes on all the time I don’t think it’s right. I don’t think it’s right that they have those preferences in business anymore. I thought we were past ethnicities!” [FHWA#42]
- The Black American male owner of a DBE- and SBE-certified construction-related firm said that there are DBEs who are millionaires who should not be getting contracts. He said, “They should be able to stand [on their own]. If I’m a millionaire, why do I need help?” [FHWA#19]

The same business owner reported, “There is a great deal of fraud in the DBE program. There is just fraud everywhere.” He said there are “tons” of people who are claiming they are DBEs when they are not. [FHWA#19]

- The non-Hispanic white male owner of an SBE-certified consulting company stated that he has no personal knowledge. He, however, noted he has only heard of instances where other firms may be “fronts.” [FHWA#44]

The same business owner reported that he has heard stories of employees that are “set-up as a certified business to prime jobs then subcontract back to the old employer.” [FHWA#44]

- The Subcontinent Asian American male owner of a DBE-certified transportation services firm indicated that he is aware of front firms. He said, “Yeah, there’s a company where I think a minority male is involved. I heard he’s been in debt for a couple of years and the company is still minority certified, but the guy who owns it is [non-Hispanic white].” He added, “The minority male had a debt so he gave [the company] to the [non-Hispanic white] guy. The [non-Hispanic white male] began giving him \$5,000 a month. That has happened for ten years now. That is bad. For \$5,000, [the non-Hispanic white male is] getting all the jobs as a [DBE] certified minority firm.” He remarked, “it is what it is nothing you can do. But now the minority male has died.” [FHWA#54]

The same business owner continued, “A lot of people do that. They hire somebody. The [non-Hispanic white] owner recruits blacks or women, where some are homeless; and they don’t have a lot of money and they live badly people getting \$4,000-\$5,000 a month suddenly start living good and start using their name on the company. They have never even been to the office. They’re just a nameplate on it.” [FHWA#54]

- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm indicated that she is aware of front firms. She explained, “I know one instance right now where there is a firm and the agency has picked up on it. Follow the money, the money is the ticket.” [FHWA#38]

Some business owner reported no knowledge of “fronts” or frauds. [e.g., FHWA#24, FHWA#39a, FHWA#49]

- The non-Hispanic white male owner of a specialty construction firm stated that he is not aware of any “fronts” or abuse of certification by firms. [FHWA#37]

A number of businesses reported on “pass-throughs.” A number of businesses provided information on “pass-through” firms that had limited involvement on the job. For example:

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported, “We buy [the] material, we know the process, [we] take receipt of the material, and we know it’s a cumbersome process.” He said that it is frustrating to lose a contract to another firm when it “just seems like it passes through them without any work being done.” If they are not “taking possession” of the material and are not adding any value, they should only be getting “a broker percentage” for the value of that item and not the total contract value. “Caltrans needs to do a little better monitoring of that.” [FHWA#11]
- The non-Hispanic white male owner of an SBE-certified specialty contracting company said, “[DBE certification is] abused.... I can buy products through somebody else for two or three percent more. They just pass it through. So, they buy what I tell them to buy and mark it up just so that I can say I bought from a disabled veteran, or a minority, woman-owned minority business, whatever. They’re just a way for somebody else to make an extra few bucks when it’s all said and done.” [FHWA#32]

Any adverse effects of programs on businesses not eligible for the programs. Some business owners thought there were negative effects. [e.g., FHWA-WT#6, FHWA#43] For example:

- When asked about working with DBE businesses the non-Hispanic white male owner of an SBE-certified consulting firm believes the program has some problems especially in rural areas. He said, “I [live] in a very rural area. The pool of sub-contractors and suppliers is very shallow. So, you get a DBE in there. He comes in, he scoops up a whole bunch of business because he is a DBE and you had so few to pick from. Scoops up a whole bunch of business and actually drives out other businesses that are non-DBE but he’s actually providing more expensive, lower-quality service than the businesses he’s replacing. I think in a bigger urban area, that effect wouldn’t be as pronounced but when you’ve got a very shallow pool like we do, it really is noticeable.” [FTA#1]
- When asked about any negative effects of DBE/SB/DVBE programs on businesses not eligible for the programs, the non-Hispanic white male owner of a specialty construction firm stated that “regular” companies [not certified] might be missing opportunities to get contracts. He went on to say that technically he is a “white guy,” so he could be considered disadvantaged because he’s not a minority or disabled, and is thus excluded from DBE programs. [FHWA#37]
- The non-Hispanic white male owner of a specialty construction firm reported that DBE programs provide so much benefit to eligible firms that ineligible firms are then disadvantaged. He said, “I think that sometimes things get to a point where so I’m the average white guy, and because of that I have status. I am not discriminated against. They are trying to open it up to everybody to be fair, and what have you. You almost feel like you’re a minority.” [FHWA#18]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm said, “I think there is a negative effect. Not a direct negative effect, but the fact that other people are getting jobs that they might have.” [FHWA#45a]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm said the negative effects for those not eligible for DBE or SB/DVBE certification programs is “they get bumped out of a lot of deal opportunities just like how we [minorities] got bumped.” [FHWA#47]
- The non-Hispanic white male owner of an SBE-certified consulting company when asked if his firm has experienced any negative effects from DBE programs because they are not eligible said, “That’s happened to us many times because we are white males.” He said that his firm has been in talks with primes and have submitted their SBE certifications. He stated in this instance he was called back and told that his firm’s certifications [SBE] were not the certifications approved by the agency, so his firm was no longer under consideration for the work. [FHWA#44]
- The non-Hispanic white male owner of an engineering firm said he was not aware of any negative effects of program on businesses not eligible for the program but added, “I think these programs are unfair.” [FHWA#42]

The same business owner reported that he does not like when he gets inquiries for work and is asked, “Are you a woman-owned or a minority-owned business because we have to meet a quota percentage.” He added, “I don’t think that’s fair. I thought we cut those cords a long time ago.” [FHWA#42]

Some business owners did not report any adverse effects of programs on businesses not eligible for the program. [e.g., FHWA#11, FHWA#13, FHWA#14, FHWA#38, FHWA#39a, FHWA#46a, FHWA#49, FHWA#51, FHWA#52, FHWA#53, FHWA#54, FHWA#55, FHWA#59, FHWA#60]

- The Black American female owner of a DBE- and SLBE-certified construction-related business indicated that there are no negative effects of DBE programs on businesses not eligible for them saying, “Only white people have won the projects so it doesn’t matter.” [FHWA#48]

Any MBE/WBE or supplier diversity programs in the local private sector. Some business owners and representatives reported knowledge or experience with MBE/WBE or supplier diversity programs in the local private sector. [e.g., FHWA#42, FHWA#48, FHWA#52]

Most interviewees reported no knowledge or experience with local private sector MBE/WBE or supplier diversity programs. [e.g., FHWA#11, FHWA#37, FHWA#38, FHWA#43, FHWA#45a, FHWA#46a, FHWA#47, FHWA#49, FHWA#53, FHWA#54, FHWA#59, FHWA#60]

J. DBE and SB/DVBE Certification

Business owners and managers discussed the process for DBE and SB/DVBE certification and other certifications, including comments related to:

- Knowledge of certification opportunities;
- Ease or difficulty of becoming certified;
- Advantages and disadvantages of certification; and
- Experience regarding the certification process and any recommendations for improvement.

Knowledge of certification opportunities. Some interviewees discussed their level of understanding about certifications.

A few business owners reported no awareness, or limited awareness, of certification. For example, some had no knowledge, while others had questions about certification. [e.g., FTA#3, FTA#4, FHWA#42]

A number of interviewees reported awareness but had not yet certified or qualified as an MBE, WBE, or DBE. [e.g., FHWA#9, FHWA#58]

- When asked whether the company holds any SBE or DBE certification, the Black American male owner of a telecommunications firm stated, “It just seemed like a big huge waste of time anymore. So, no we are not.” [FTA#13]

- The Hispanic American male owner of a specialty construction firm said that he is familiar with the DBE program and the DBE designations. He said that if they pursue public-sector work in the future, they might consider DBE certification. He added that in order to qualify or start the DBE certification process, they would have to make changes in their firm. He added that his firm might pursue WBE certification in the future. [FHWA#4]

Some interviewees reported awareness of certification opportunities and noted that learning about certification was relatively easy. [e.g., FHWA#10, FHWA#11, FHWA#32, FHWA#46a] For example:

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm when asked if he has knowledge of any additional certification opportunities noted, “Actually the federal government has an association with the veteran’s firms.” [FHWA#45a]
- The Black American male owner of a DBE- and MBE-certified construction company reported that he is aware of certification opportunities. Most of the time it is first-hand knowledge; for other agencies with large projects, he learns of opportunities second-hand. [FHWA#60]

Ease or difficulty of becoming certified. A number of interviewees commented on how easy or difficult it was to become certified.

Many interviewees reported difficulties with the DBE or SB/DVBE certification and/or renewal process. Some interviewees indicated that the certification process was difficult, time consuming or problematic. [e.g., FHWA#16, FHWA#17, FHWA#22] For example:

- When asked what the certification process was like the non-Hispanic white male owner of an SBE-certified consulting firm stated, “I chose to become certified because I wanted every advantage I could get and when you’re starting a business, you’re often not very busy. That’s one of the areas you can use your time. It’s helpful to give you some advantage. The process of getting small business certified, all the documents they ask for made sense. But I seem to remember my initial certification taking quite a while. It was two or three months, that’s a quarter of a year and you haven’t had it and been able to use it to get work. That’s a fair amount of time when you’re starting a business. Re-certification this time was fairly minimal what I had to do. As long as I stay in business, yeah I’ll probably keep the small business [certification].” [FTA#1]
- When asked about the ease or difficulty of becoming certified, the Black American male owner of a telecommunications company said, “It was cumbersome that you have to keep doing it over and over again. If they really want to do business with you, they shouldn’t make it so difficult to do business with them.” [FTA#13]
- The non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated that the certification process should allow for certification reciprocity and should be streamlined across federal and state agencies in order to be more efficient and easier for businesses. He commented that if a rigorous certification process with a federal agency is completed, it should allow for that business to then also be certified with the State of

California without having to go through a separate but similar process for each agency that the business would like to be certified with. [FTA#15]

- When asked about his experience with the DVBE certification process, the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm said, “It was difficult. I had to do just about everything besides give them a blood sample. It is terrible. They want bank records and all that crap. Who cares? I am a DVBE. I went to war. Okay?” [FHWA#8]
- Regarding the renewal process, the same business owner stated that he felt the DVBE renewal process was unnecessary saying, “Who thinks up this stuff? You know, it’s just somebody else in some agency getting paid to justify the position by making everybody else in the whole world jump through hoops that they really shouldn’t have to and for a second time because they’ve already done it. Makes no sense.” [FHWA#8]
- The non-Hispanic white male owner of an SBE-certified consulting company stated that his experience with SBE certification “wasn’t super easy but it wasn’t terrible.” [FHWA#44]
- The female owner of a DBE-, WBE-, and SBE-certified consulting firm reported that the DBE application process is too lengthy and requires too much information. [FHWA-PF#5]

The same business owner recommended that there should be a database that all public agencies could share the certification information and prevent repetitive application processes for certification. [FHWA-PF#5]

- When asked about her experience in becoming WBE-certified and the ease or difficulty associated with the process, the non-Hispanic white female owner of a WBE-certified specialty construction firm described it as very difficult saying, “They wanted every drop of blood out of my body and my firstborn child.” [FHWA#7]
- The male representative of a non-certified small woman-owned firm reported that the firm has given up on obtaining 8 (a) certification due to the difficult, time consuming, repetitive and “error-filled” process. [FHWA-WT#13]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm reported, “I guess the easy part of it [certification process] is that they gave me a list of everything that I need to provide to them.” She said, “The complicated part of it is things that I didn’t know.” She added, “It was definitely very lengthy and very detailed and very specific, so it probably took me a few days to really get everything together. Once I had everything together and once everything was submitted, the process was pretty smooth. It was just getting everything that they needed, which I felt like I was signing my life away.” [FHWA#13]
- The female owner of a WBE-certified transportation firm reported, “It was a difficult process and it still is.” However, she reported that the last recertification was significantly better. She said, “They’ve improved their system, so it went really smooth this time. This time it was online, which was a significant improvement.” [FHWA#34]

The same business owner reported that, in the past, the public utilities certifying agency appeared overwhelmed with too many applications and too few people to process the applications. She commented that they must have increased their staff because the recertification in February 2016 was more efficient. [FHWA#34]

- She added that her firm had experienced problems with the WBE certification renewal process because the certifying agency was so slow. She said that even though she submitted her renewal application in a timely manner, her certification “expired because they were so behind and didn’t have enough people [to evaluate applications in a timely manner.] It was a nightmare and it was very nerve wracking for me. It did cost me money, you know, it was going to hurt me.” [FHWA#34]
- The non-Hispanic white female owner of a DBE-certified consulting firm when asked about her experiences becoming certified stated that it was overwhelming. She explained, “let’s begin with the massive quantity of information that has to be submitted and then should there any change like incorporating, you have to reapply from scratch. They should have a streamlined process.” [FHWA#55]

A number of interviewees reported extended time between applying for and receiving certification or discussed unsuccessful attempts to certify. [e.g., FHWA#19] For example:

- The Black American female owner of a transportation firm expressed how frustrating the certification process can be for small business owners stating, “I feel like it’s a very bureaucratic system, especially if you want to work with some of the agencies that you’re applying for Medi-Cal or any type of government subsidies. It’s just so bureaucratic, and the process times are really long, it’s really unrealistic to expect a company who’s just trying to get off the ground to wait a year-plus for certification while still trying to run a business. There’s no equilibrium there. If you don’t have support or outside investors or funding, you’re not going to survive past the first two years. It’s just too convoluted, there is a negative perception about governmental employment, that they just sit on things. Transportation as a whole, especially in my region, is just disjointed. It’s disenfranchised.” [FTA#2]
- The Hispanic American female owner of an MBE-certified specialty services firm reported that the DBE process of certification was very difficult. She said that she was denied the first time she applied for certification. She said, “I knew the reason why was due to the fact that I’m married to someone in the same industry.” She added that finally she waited a few years, applied again, and received approval. [FHWA#5]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm commented, “The experiences were very, very intense. The first time they interviewed us the vice president was here, a tall white male. They took more time listening to him than they were listening to the [minority] female owner, and they actually denied us the first time. And then I think it was six months later that they allowed us to reapply and then they gave it to us.” [FHWA#56]
- In discussing her experience with the DBE certification process, the non-Hispanic white female owner of an SBE-certified specialty contracting business reported that she spent more than 70 hours completing her DBE certification application and submitted it to Caltrans a few years ago. She said, “I was working directly with a [Caltrans] auditor and she went through all the documentation [required] and then she would request more things, which I happily gave.” She also received advice from another DBE that had gone through the process because she “had heard how difficult it was to get a DBE designation.” She

stated that she received a denial letter more than seven months later. She said, “I was devastated because it took so much time for me to put it together and I kept having these dreams of [taking] my company to the next level. Those dreams were dashed.” [FHWA#24]

The same business owner noted that when the Caltrans representative came to perform the DBE certification site visit, “I wish I would have recorded [the visit] because when he did his final report a month later or two, he totally forgot a lot of things that we talked about. And he put misleading information.” She said, “He lied about some of the things that I said and I actually had a witness with me. [I]n the denial letter, there [were] specific things [that] I didn’t say.” [FHWA#24]

- The non-Hispanic white female owner of an SBE-certified specialty consulting company reported her negative experience when her firm was DBE-decertified. She commented, “the state decertified us saying [that] because my husband worked here, I didn’t know what I was doing [even though I had] a degree and a license [in the field].” She said she had a hearing and the state “still decertified us. That was very, very frustrating. [It was] one of the worst days and moments of this company.” [FHWA#20]
- The Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm expressed frustration that she could not obtain DBE certification for the type of work they wished to perform. She said, “It was hard for me because I didn’t qualify under what I was trying to go after.... I didn’t qualify because I only had the B license, and the only thing [prime contractors] had for me was private work.” She added, “that was frustrating because I went through this whole process and then I don’t qualify.” [FHWA#13]

Some interviewees indicated that a major issue with the certification process is that it is labor intensive and time-consuming; for some, the paperwork was also a barrier. [e.g., FHWA#16, FHWA#22, FHWA#57, FHWA#61] For example:

- The non-Hispanic white male co-owner of an engineering firm discussed the difficulty of becoming certified. He said, “Unfortunately, until now, we didn’t pursue anything based on the minority- or woman-owned [certification] which is not yet [possible] for our firm because [we have not completed the certification yet]. We’ve been so busy in the last three years that we weren’t able to put together the [application] and apply for this certification. The process of organizing this firm and pursuing projects with our contacts, it took us basically the entire time we had available. [FTA#11]
- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm reported that despite being registered as a DVBE with Caltrans, his firm is required to file a separate registration with Metrolink: “I am registered with the State [of California], but when it comes to Metrolink, I have to register with them. Don’t they work for the State? Isn’t my registration good? And you know, no it’s a duplication of effort, it costs us time, it costs us money, and it does no good because we’re already registered.” [FHWA#8]
- When asked about the ease or difficulty of becoming certified, the Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm said, “It was a process.” He added, “retrospectively from being in business for six years, it’s a process because if you’re going to be a business in California and do public works projects, you

better be accustomed to do a lot of paperwork. At the time it was like, ‘Holy cow,’ this is crazy, all this information. It’s just the way it is.” [FHWA#10]

- The non-Hispanic white female owner of a DBE-certified consulting firm stated, “It was a headache, very time-consuming. I felt blinded. It was very, very frustrating.” She added, “There’s so much information, you don’t know where to begin. I went to some seminar and [thought they are going] to show me how to do this and give it to me ABCD. They tell you ‘This is what you do.’ Yeah no, it didn’t work that way.” [FHWA#39a]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported, “The annual certifications can be cumbersome. [They want to see three years of financials, but] if it’s an annual certification, it should be just the last year’s financials.” [FHWA#11]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm when asked about the ease or difficulty of becoming certified said, “There is nothing easy about any of them [the DBE certifications].” He also stated “some certifications are more difficult than others. Caltrans’ certification process is purposely over-burdensome because they are trying to weed front firms out.” [FHWA#47]

The same business owner reflected on his company’s Caltrans certification experience. He stated that when applying for DBE certification with Caltrans he collaborated with another person with a separate business: “The two businesses were joint venture partners.” He said, “the lady who reviewed the application and performed the interview was confused and out of her element about the business relationship between the two firms and denied our certification.” He added that, at every level of review, Caltrans’s staff was not able to comprehend his company’s structure. [FHWA#47]

- The Black American male owner of a DBE- and SBE-certified construction-related firm said, “It [certification process] was a great deal of paperwork, [but] I think that’s good because there is a lot of fraud out there. It probably could even be more paperwork. [I’ve seen a lot of fraud and thought that] they are not even really scrutinizing people enough.” [FHWA#19]
- The Native American male owner of a DBE-certified construction-related firm reported that when he applied for DBE certification, the certification packet he ultimately submitted was about 400 pages. He commented, “[The certifying agency] wanted to have every asset that you have.” [FHWA#49]

The same business owner reported that when he first applied for certification as a DBE the reviewer said, “Even though I’m a Native American Indian, I’m probably not viewed as a minority.” He reported that he was able to provide all the required documentation to support his nationality, and his firm ultimately became certified. [FHWA#49]

One interviewee reported a level of unfairness embedded in the certification process.

- The Black American representative of a minority trade organization suggested that woman-owned companies should not have the same certification as minority owned companies because, in his opinion, they are not as disadvantaged. He said, “I think in construction, making a woman-owned business certifiable [as a DBE], for where my people

have been, [woman-owned businesses] shouldn't have been qualified [the same as] me nor certified [the same as] me." [FHWA#52]

Some interviewees said that the DBE- or SB/DVBE-certification process was easy, reasonable, or they reported that they received assistance with the process. [e.g., FHWA#2, FHWA#14, FHWA#28, FHWA#38, FHWA#45a, FHWA#48, FHWA#50, FHWA#54, FHWA#56, FHWA#60] For example:

- The non-Hispanic white male owner of an SBE-certified specialty contracting company said that SBE certification "was very easy." and "Okay. Pretty straight forward." [FHWA#32]
- The non-Hispanic white male owner of an SBE-certified specialty contracting business reported that the SBE certification process was "fairly quick and fairly easy." [FHWA#35]
- The Black American male representative of a minority trade organization commented that "years ago [DBE-certification] was kind of difficult, but now they got people at the agency to assist and expedite certification." [FHWA#52]

A few interviewees reported that, because they had not gone through the certification process, they did not know whether certification was difficult or not.

- The non-Hispanic white male owner of a specialty construction firm stated that he is not aware of the ease or difficulty of becoming certified. [FHWA#37]

Advantages and disadvantages of certification. Interviews included broad discussion of whether and how DBE certification helped subcontractors obtain work from prime contractors.

Many of the owners and managers of DBE- and SB/DVBE-certified firms indicated that certification is advantageous. [e.g., FHWA#38, FHWA#39a, FHWA#44, FHWA#46a, FHWA#47, FHWA#51, FHWA#52, FHWA#54, FHWA#55, FHWA#57, FHWA#61] For example:

- When asked if there are benefits to being certified the non-Hispanic white female owner of DBE-certified engineering firm expressed, "I would say that DBE has tremendously helped me because a lot of jobs, especially when the economy wasn't good, were federally funded job or state funded and they required the DBE percentage. So, I think many of the firms, I would say over 50 percent of my jobs are DBE. These firms would not use me if there wasn't a DBE percentage. One thing is out of all the certifications that I've looked at getting, the DBE is the hardest to get. To me, it is the most worth it and the only one I think I use. All my work is through DBE pretty much actually I would say over 50 percent for sure, maybe even closer to 75 percent of my work I am on a project because I am DBE certified and I'm helping that team reach that percentage. So, it definitely helps me get work" [FTA#6]
- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported that DBE certification sometimes is helpful to his firm obtaining work. He stated, "A lot of times if the contractor needs to meet the DBE goals, they tend to look for companies with the DBE certification. So sometimes if your price is right you will get the work. The representative commented, "Some contractors are pretty fair. If your price is a little bit more than the lower guy, typically they'll still take you [a certified firm] as a supplier." [FHWA#11]

- The Native American male owner of a DBE-certified construction-related firm said that certification “gives the little guy an opportunity to swim with the big ones.” He added, “[Certification] gives us an opportunity to get our foot in the door.” [FHWA#49]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business stated that DBE certification is an advantage. She said, “It puts you above the rest. There is lots of competition. If you want to get the work, anything you can do to make yourself stand above the rest, that’s important.” [FHWA#24]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm reported that DVBE-certification has allowed his firm to work on projects they otherwise would not be able to work on commenting, “I do have an opportunity to work on projects that are new to our experience level.” [FHWA#45a]
- The Black American male owner of a DBE- and MBE-certified construction company stated, “The big advantages I think are the leads that you normally wouldn’t see come across your desk. In an email, opportunities are sent to you; you just wouldn’t get that without certification.” [FHWA#60]
- The non-Hispanic white female owner of a WBE-, SBE- and DBE-certified specialty consulting firm responded, “The ability to be on a list where if there is that quota then potential primes will look at that, and have an opportunity to call us...which is why we don’t really market.” [LAM#29]
- The manager of a DBE- and SBE-certified Black American woman-owned engineering and construction services firm commented, “The program is great, but not perfect.” He clarified that the company’s status as a DBE- has not necessarily opened doors, but has given the firm more opportunity. He concluded, “Make no mistake; it only gives us the opportunity to knock on the door.” [LAM#1]
- The Asian American male owner of an MBE- and SBE-certified engineering firm stated that the DBE certification program provides a competitive advantage for small firm like his to qualify for public contracts. [LAM#25]
- The non-Hispanic white male representative of a regional disadvantaged business association stated that there are no disadvantages to certification. He observed how certification is valuable and important in “opening doors” to new business. The majority of members in his association are certified DBEs and that those that are not certified are mostly new members and not aware of certification and its advantages. [LAM#41]
- The Hispanic American male owner of a demolition and trucking firm noted that he is aware of the benefits of DBE certification even though his firm is not certified. He explained that he had heard that if a firm has DBE certification, it would open doors to other government agency contract opportunities that require DBE participation. [LAM#22]
- The representative of a DBE-certified non-Hispanic white female-owned civil engineering firm responded, “There have been only advantages, no disadvantages [to our DBE status]. Between our reputation for getting the job done and the opportunities provided by the DBE program, we have established a niche for our small company.” She explained that the firm is a top performing DBE-certified firm that is in demand by the primes with whom it does business. [LAM#6]

- When asked whether the firm has benefitted from the DBE, MBE, or SBE certification, the representative of a DBE-, MBE-, and SBE-certified Hispanic male-owned construction firm responded, “Yes, significantly. Especially on projects where there is a [contract goal requirement]. When the prime is required to use a DBE or SBE, it opens the door to larger projects, like with Metro. It’s definitely helped us.” [LAM#8]
- The Senior Vice President of a DBE-certified Hispanic woman owned engineering firm stated, “The DBE program provides attraction to our firm that is often overshadowed by the larger firms. MTA has unique programs in force for diversification that others around the country are following suit. It is my hope that MTA continues to support these programs as the leader in DBE participation.” [LAM-WT#3]
- When asked to discuss any benefits associated with certification, the Asian American male owner of a DBE-, MBE-, and SBE-certified environmental engineering firm responded, “Our benefits are from our value proposition. I have shown the decision makers that I can do the job. In most cases, our participation for the prime is bigger than the [contract] goal.” [LAM#11]
- When asked to discuss any benefits of the firm’s DBE, MBE, and SBE-certification, the Black American male co-owner of a DBE-, MBE-, and SBE-certified architecture firm responded, “There are benefits whenever proposals give soliciting firms ten points extra, then it helps. When there is not any bonus, it may not help. It also helps if there is a defined geographic area, like if you’re in a certain geographic area and there are points for that.” [LAM#15]
- The Hispanic American female owner of a DBE- and MBE-certified specialty trucking and hauling firm stated that one of the advantages of being certified is the fact that prime contractors will take notice of certified firms more than non-certified firms because of public project requirements and the credits they receive. She went on to add, “It puts your name out there more.” [LAM#21]
- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm responded that the DBE certification is firm’s “bread and butter for obtaining work on Metro, SANBAG [SBCTA], and OCTA projects, because of the DBE goals.” [LAM#2]

One interviewee reported advantages specific to working with public agencies and expressed that the certification was a platform for working on public-sector jobs.

- The non-Hispanic white female representative of a general contracting company said that minorities and woman-owned businesses gravitate to public-sector work due to goals requirements. She said, “[Being minority- or woman-owned] is an advantage in the sense that you can get agency work.” [FHWA#43]

A few interviewees expressed mixed feelings, indicating that there are limited advantages, or even disadvantages, to certification. [e.g., FHWA#22] For example:

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm said that the SB/DVBE program does not help his firm get work. He explained, “What the prime contractors do, they go out to an agency that looks for DVBE and SBE contractors

and so they say, 'We're going to go out and do this job. Go find us some [sub] contractors.' If I would take and bid those jobs, okay, then I'd never hear from the prime contractors. They never call you back and if you do call them to find out [information], you get stupid voice mails." He added, "The human contact between prime contractors' agencies and the actual subcontractors is very, very minimal. That needs to be fixed." [FHWA#8]

- The Hispanic American male owner of a DBE- and MBE-certified supply firm remarked, "certification does no good at all. That's out biggest complaint." [FHWA-PF#1]
The same business owner added, "when you're looking at a green product, an environmental product we can't sell Caltrans." [FHWA-PF#1]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm reported that though there are many advantages, the lack of privacy is the only disadvantage to certification. [FHWA#47]
- When asked if there have been any advantages to his firm being certified as an SBE, the non-Hispanic white male owner of an SBE-certified specialty contracting company said, "I don't think so. The small business doesn't get much of a break, like the disabled veterans would, [or] minority-owned [businesses]. Those get a bigger break. They are more required than [SBEs]. So [the SBE certification] hasn't been any advantage to us yet." [FHWA#32]
- The executive of a DBE-, MBE-, and SBE-certified Asian American male-owned transportation and engineering consulting firm explained that the only disadvantage to DBE certification is "controlling growth." His noted that firm has to be careful to not expand beyond the DBE revenue limits. He explained that if the firm exceeded certain revenue limits, they would no longer qualify as a DBE or SBE firm, and that would possibly limit the firm's opportunities. [LAM#2]

Some businesses suggested that there is a negative stigma associated with being an MBE/WBE or DBE, minority- or woman-owned firm, or small business. For example:

- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm reported, "The bottom line is, once you fall into that DBE/MBE category I think for the general contractors, especially for the bigger primes [they have the attitude that they] have to have you because [the State is] making [them] use you guys." [FHWA#10]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that the disadvantage to certification is hearing non-certified firms complain that it is not fair that she is a woman-owned firm. She said, "Hearing some of the guys whine. 'That is not fair. Just because you're a woman.' I think that's humorous." [FHWA#55]
- The owner of a DBE- and MBE-certified specialty service firm remarked that certification has been "a block of cement around the neck" of his business. [FHWA-WT#33]
The same business owner remarked, "[Certification] represents nothing but negative reflections. I have found no matter how hard I work, no matter how qualified I am, no matter how well positioned my company is; it is all for nothing because the certification of MBE or DBE defines the day." [FHWA-WT#33]

Some businesses reported that there is no negative stigma associated with being an MBE/WBE or DBE, minority- or woman-owned firm, or small business.

- The non-Hispanic white male owner of a specialty construction firm stated that he doesn't think that minority- or woman-owned firms will have problems getting jobs "if they're driven and self-starters, they shouldn't have a challenge [except] possibly doing the jobs." He spoke about a successful minority, female colleague in the construction industry, who is "all about the work. She's had to be a woman in a man's world." He went on to say that one thing he really likes about construction is that "if you can do the work, that speaks volumes. Performance speaks volumes." [FHWA#37]

Two businesses representatives expressed that there were no benefits to being certified.

- A DBE-certified insurance agency provided feedback about the DBE certification program stating, "We have been through the process [and] never received an opportunity to bid in a period of nine years, there has never been a contract that would be the right business fit." [FTA-WT#1]
- The non-Hispanic white male owner of an SBE-certified consulting firm explained that he has been certified for ten years and continues to renew his small business certification even though he has not seen much benefits from certification. The owner stated, "Well, I tell them [prime contractors] about it [certification] but it has not helped me so far. It's done nothing for my business so far. It really did nothing for my business when I was in construction. Like I said, I think this whole small business thing is more applicable maybe in a construction field for sub-contractors and suppliers. But you never know when it's going to [be an advantage for the business]." [FTA#1]

Several interviewees had additional comments:

- When asked about the advantages of certification for his company, the Black American male owner of a telecommunications firm said that he did not consider the advantages outweighed the cost of acquiring and maintaining certification. He said, "It was hard to measure whether it was a sufficient return on investment. I didn't feel it was sufficient enough to keep going with it." [FTA#13]
- The owner of a DBE- and MBE-certified specialty service firm reported that the certification system is corrupt and only benefits a small privileged group of people. He commented that those who benefit from certification are mostly minorities and women that come from well off backgrounds. [FHWA-WT#33]

The same business owner remarked, "[The] MBE, WBE and DBE program is nothing more than welfare for wealthy minorities and women in business for themselves. We have eliminated racism in public contracting only to replace it with cronyism. Cronyism is the new form of discrimination." [FHWA-WT#33]
- The Subcontinent Asian American male owner of a DBE-certified transportation services firm reported, "Yeah, I think the [DBE certification] process should be easier. If you are a woman-owned company or you are DBE, the process should be the same. It shouldn't be any harder to get woman certified." [FHWA#54]

Experience regarding the certification process and any recommendations for improvement. Interviewees made recommendations for a number of improvements to the certification process.

Some Interviewees recommended a need for simplification of certification and recertification processes. [e.g., FHWA#39a, FHWA#46a, FHWA#47] For example:

- The non-Hispanic white male owner of a specialty construction firm recommended that Caltrans make the DBE certification process simpler. [FHWA#37]
- The non-Hispanic white male representative of an SBE-certified engineering firm said there is too much redundancy in the DBE certification process. He said, “I don’t know who writes these forms, but it’s confusing.” He suggested having a resource to assist with completing the forms for certification — possibly a website or telephone line. He said that the certifying agencies must understand the experience and burden associated with the paperwork. [FHWA#28]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm commented, “let [the time between renewals] go a little bit longer so it doesn’t have to be done so often. Once you’ve been in business and had [the certification] like me, I’ve been here [several decades], not much is going to change.” [FHWA#7]
- The non-Hispanic white female owner of an SBE-certified specialty contracting business suggested that there should be a way to “speed up the turnaround time [for DBE certification] and not require so much bureaucracy and paperwork.” [FHWA#24]
- The Native American male owner of a DBE-certified construction-related firm reported that the process was “intimidating and time consuming” and recommended simplification of the certification process. [FHWA#49]
- The Black American female owner of a construction-related business recommended that the DBE certification approval process be faster. [FHWA#2]

Some had other recommendations, such as a need for more open channels of communication and greater reciprocity among different DBE programs. For example:

- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm recommended that “there should be an opportunity [for subcontractors] to complain [to agencies] about not being treated well by their [prime] contractor.” [FHWA#45a]
- Regarding the process and any recommendations for improvement, the Black American female owner of a DBE- and SLBE-certified construction-related business indicated a need for agencies to offer certification reciprocity. She said, “I’m trying to certify with the City of Los Angeles Metro for SPE. They want me to send everything that I have had to send to [the Department of Transportation]. That is ridiculous. If I’m already certified why not just give me reciprocity and call it done.” [FHWA#48]
- The Black American male owner of a DBE- and MBE-certified construction company reported having some trouble with the certification process after he was already certified.

He said, “A year or so later, all of the sudden I wasn’t a DBE anymore. They got their paperwork screwed up and then they got it straight. A human error mistake.” [FHWA#60]

K. Any Other Insights and Recommendations Concerning Caltrans Contracting or MBE/WBE and DBE Programs

Interviewees provided other suggestions for California state agencies to improve its small business or DVBE and DBE programs, or any other insights or recommendations. Such suggestions and comments are related to:

- What Caltrans is doing well;
- Suggestions for improvement; and
- Final comments.

What Caltrans is doing well. Several interviewees spoke about areas where they feel Caltrans is doing well. For instance:

- The Subcontinent Asian American male owner of a DBE-, and MBE-certified engineering and design firm commented on Caltrans’ and other public agencies’ processes. He said, “I think they’re getting on the right track. I think increasing the minority and disadvantaged business requirements is a good component. I think having more networking events is a really good thing they’re doing. They already have the list of the small companies that are in the space, so that’s good. When they [Caltrans] do a big job, they’re going to have to give it to a large company, and so making that company held accountable to want to hire local firms I think is good. I think having Caltrans say, ‘We want to hire firms that are not international, that are Caltrans-based,’ could be a good avenue, because even though these companies, they’re local, they’re really not. They just have an office here just for the sake of being local with one person in the office, and so I think if Caltrans really wanted to have the work that’s being done here go to people who live in the Bay area, then having some sort of accountability is needed.” [FTA#8]
- The non-Hispanic white male owner of a specialty construction firm stated that he is not aware of anything Caltrans is doing well. [FHWA#37]
- The non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty-contracting firm reported, “I think they worked well in becoming more open to online submissions. They are one of the few coming into the 21st century.” [FHWA#38]
- The Native American male owner of a DVBE-certified transportation firm indicated when asked what Caltrans is doing well, “Well, there are a lot of things they’re doing well. They are getting the contracts out there even though the state of California does not have the money. They are trying to improve which is great. They’re doing a lot of things well.” [FHWA#57]
- The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm when asked what Caltrans is doing well replied, “I appreciate their online resources with telling other subcontractors or other suppliers about opportunities.

They do a really good job of keeping their website up to date when it comes to certain contracts.” [FHWA#56]

- The Subcontinent Asian American owner of a DBE-certified transportation services firm commented, “Their [DBE] program is very good. There is still an opportunity for people like us to work directly for Caltrans and come up in the business. It is good. I like it.” He stated, “I didn’t have many problems with Caltrans. Usually the problem comes when you give the jobs to some primes. That is when the problem comes in. We have problems with the primes, not with Caltrans.” [FHWA#54]
- The Black American male owner of a DBE- and SBE-certified contracting firm when asked what Caltrans is doing well replied, “Caltrans is making a small pool of rich contractors richer.” [FHWA#61]
- The non-Hispanic white male representative of a DBE-certified construction-related firm when asked what Caltrans is doing well replied, “They’re being good in spreading the wealth. They are staying up with technology. They’re more and more accepting of electronic plans as opposed to paper ones. Better but not perfect.” [FHWA#53]
- The non-Hispanic white female owner of a DBE-certified consulting firm reported that Caltrans having their contracting opportunities online is something they are doing well. [FHWA#55]
- The Black American male representative of a minority trade organization stated; “Caltrans’ online process is something they do well.” [FHWA#52]
- The Black American female owner of a construction-related business when asked what Caltrans is doing well reported “everything is very accessible with regard to bidding on projects.” [FHWA#2]
- The non-Hispanic white female owner of a DBE-certified consulting firm when asked what Caltrans is doing well replied that they have a lot of work she would like to perform. She added that Caltrans should, “Hire our firm!” [FHWA#39a]
- The Black American female owner of a DBE- and SLBE-certified construction-related business said, “The small business statewide committee and the mentor protégé program is a great thing.” [FHWA#48]
- Speaking about what works well with Caltrans’s contracting process, the Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE-certified specialty construction firm said that her firm likes having online access to payment status which is made available by Caltrans. She added that the Caltrans website is good for understanding things like the types of work required for a project or the challenges a firm might face in meeting compliance requirements. [FHWA#3]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm stated that the “overall the process does work [but] it could be a lot smoother and it could be more effective.” [FHWA#10]
- The non-Hispanic white male representative of a general contracting company stated that Caltrans is doing many things really well. He added, “Caltrans is doing a good job with its DBE program.” [FHWA#41]

- The Hispanic American male representative of a DBE- and SBE-certified specialty supply firm reported that Caltrans is doing well in “establishing [goals on] the contracts. That’s always good.” [FHWA#11]
- The non-Hispanic white male representative of a general contracting firm when asked what Caltrans is doing well reported that District 4 is “doing a much better job. I think [they are] trying to bring together DBEs and primes. They have a prime DBE kind of initiative in the Oakland office, which I think has been positive.” [FHWA#26]

The same business representative added, “I recently attended training outreach by Caltrans just trying to educate people about [Commercially Useful Function and Good Faith Efforts]. And I thought that was really well done, I think it’s kind of putting a more personal touch to the agency.” [FHWA#26]

- When asked what Caltrans does well, the non-Hispanic white male owner of an engineering firm stated that he believes Caltrans provides a stable work environment to their employees and are very competitive with businesses in the private sectors. He also said that Caltrans has “good people” working for them and are a good employer. [FHWA#42]
- The Black American male owner of a DBE- and SBE-certified construction-related firm indicated, “From what I’ve seen from my experience in dealing with [Caltrans], they’ve been very professional. They are always looking to help [small businesses] out or answer any questions you got. I have not had any issues with Caltrans at all. They are a great organization. They are good to work for.” He said, “I get a ton of information from Caltrans regarding workshops” and other assistance. [FHWA#19]
- The non-Hispanic white male owner of a specialty contracting company said, “I think [Caltrans] is keeping up on the infrastructure. I think they’re doing a good job as far as that’s going.” [FHWA#51]
- When asked if there is anything Caltrans is doing well, the Hispanic American male owner of a DBE- and MBE-certified specialty contracting company replied, “Yeah, their online publicizing of opportunities is great. It’s a savings from the subscription services that’s fantastic. You know exactly what’s going on there.” [FHWA#46a]
- When asked what Caltrans was doing well, the Black American male owner of a DBE- and MBE-certified construction company responded, “I think Caltrans is doing a good job of putting out the contracts. I think they do a good job of setting the percentages.” [FHWA#60]

Suggestions for improvement. Many respondents provided suggestions for areas Caltrans could improve upon.

A number of interviewees reported a need for transparency in the bidding processes and unified bid postings. For example:

- The Asian American female owner of a civil engineering firm indicated that she was unaware of any attempts by Caltrans or any other public agency to engage small firms through business programs. She suggested that Caltrans should advertise its small and diverse business programs more widely and directly to relevant firms via email or phone call. [FTA#14]

- The Black American male representative of a general contracting firm when asked for other suggestions regarding the Caltrans contracting process recommended that Caltrans be more transparent and consistent across regions. He said, “One region will do something, and we do it the same way in another region and you get a totally different answer.” [FHWA#26a]
 - The non-Hispanic white male owner of a specialty contracting business recommended that Caltrans “communicate and be honest. [If] I make a bid and I don’t get it, just tell me.” He said he has to hear about losing a bid from someone else before hearing it from Caltrans. [FHWA#31]
 - The Subcontinent Asian American female representative of a minority woman-owned DBE-certified supply firm suggested that that Caltrans’s contracting and DBE program continue being transparent in what their goals are and what their goals for the primes are. [FHWA#56]
 - The Native American male owner of a DVBE-certified transportation firm suggested that Caltrans develop an 8A program for DVBEs. “That would be very helpful.” [FHWA#57]
- The same business owner recommended that Caltrans provide more contracting opportunities to small engineering and architectural firms. He said, “As far as engineering and architectural-wise, [Caltrans] need[s] to get more resources out there for the people because I know of a couple of firms that are trying to get work and they can’t. As far as engineering and architecture, they [Caltrans] keep a lot of their work in house. [FHWA#57]

For some, there is a need for improved dissemination of bidding, outreach, networking, and other assistance. [e.g., FHWA#50] For example:

- When asked if the firm had any recommendations for Caltrans in regards to the contracting process the non-Hispanic white male co-owner of an engineering firm stated, “There are ways to improve [Caltrans’ contracting] process and I would start with the advertising of the projects, and [expanding] opportunities for sub-service to contractors with agencies including Caltrans.” [FTA #11]
- When asked about recommendations for improvement, the non-Hispanic white male owner of an SDVOSB-certified transportation services firm stated, “If Caltrans could continue to find way to engage small and disadvantaged businesses in different ways, and seek to increase the participation in contracts by engaging in subcontracting. I think there’s [opportunity] to continue doing a good job [on some things] and finding ways to improve [other things].” [FTA#15]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm remarked that networking events convey false promises. Small companies are informed “we have so much work for you” but are not informed about the requirements of the work. [FHWA#3]
- The non-Hispanic white male owner of an SBE-certified consulting company said, “I’d like to see Caltrans reach out a little more to small businesses.” He continued, “I don’t know what Caltrans does but there is no advantage to being a small business for Caltrans. They just reach out to the minority, women or veterans.” [FHWA#44]

- The Black American female owner of a construction-related business suggested, “Having programs that help owners who are just getting started, specifically programs directed at Caltrans contractor opportunities.” [FHWA#2]
- The Black American male representative of a minority trade organization suggested, “Just don’t restrict [small minority-owned companies]. Build enough numbers of small minority companies and put something in place to build their bottom lines.” [FHWA#52]
- The non-Hispanic white male owner of a concrete inspection agency suggested that Caltrans could make information “more accessible for all potential certifiable firms that include all groups of people, not just women and minorities. Also, information on where small firms can go to get into Caltrans or to get into some kind of public job.” [FHWA#59]

Some DBE-certified business owners had suggestions for Caltrans regarding the behavior of primes regarding their certification. For example:

- The male owner of a DBE-certified specialty service firm commented that Caltrans should, “be looking to make sure whoever’s name is on [the bid] that they [Caltrans] say they awarded the contract to, should make sure they got the contract.” [FHWA-PF#10]
The same business owner, regarding unfair bidding practices, commented, “[prime contractors] use us for the bid and when they get the bids you don’t hear from them anymore.” [FHWA-PF#10]
- The male owner of a DBE-certified specialty supply firm commented the primes use the same subcontractors repeatedly however “that same person might have bid on that project using my low bids to get the job then switching. There’s nothing that mandates [the prime] to use the original company that puts in the efforts.” [FHWA-PF#11]

Several interviewees recommended other improvements. Comments include:

- The non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm recommended that Caltrans “get rid of the Davis-Bacon. Davis-Bacon doesn’t do anything, any good to anybody except unions that are mediocre.” He asked, “What would be wrong with saying, you know, ‘We’re spending too much money with the union people’ if some guy who’s not a union guy bids at a lower price [Caltrans should say] ‘We’re Caltrans and we are stewards of the taxpayers’ dollar here in California,’ we’re going to take the lower bidder even if they’re not union.” [FHWA#8]
- The female owner of a DBE-, WBE-, and SBE-certified consulting firm suggested, “Proposal requirements are so time-consuming and costly [they should] simplify the proposal process.” [FHWA-PF#5]
- The non-Hispanic white male representative of a DBE-certified construction-related firm suggested that Caltrans “simplify and streamline quite a few things such as the permitting process; the payment process; and the checks and balances. I’m not trying to do away with them but there’s got to be a simpler way to do it.” [FHWA#53]
- The Subcontinent Asian American male owner of a DBE-certified engineering firm stated that the “State needs to be paperless.” He believes that having to submit paperwork wastes

a lot of time. He recommends having the ability to submit proposals electronically. [FHWA#12]

- The Black American male owner of a DBE- and SBE-certified contracting firm suggested that Caltrans continue the DBE program but have it monitored and enforced as designed. He added, “Just basically, have the DBE program continue, take enforcement from the example set by the federal level.” [FHWA#61]
- When asked if she had any suggestions for Caltrans, the non-Hispanic white female owner of a DBE-, SBE-, and WBE-certified specialty contracting firm responded, “once my work is completed and inspected, pay me.” She added that Caltrans should “make sure their specifications are clean.” [FHWA#38]
- The non-Hispanic white female owner of a WBE-, SBE-, and DBE-certified specialty construction firm suggested that it would be helpful if, when an agency has a problem with a prime invoice that has DBE participation, the agency would pay the DBE portion of the invoice so the prime can pay the DBE. “If there was a way [the agency] could go, ‘okay. We’re going to release this amount for them to be paid,’ so the DBEs not sitting there waiting for 90 days.” She said otherwise, “at that point we’ve lost any profit we’re going to [make] because we’re paying interest on whatever we have on material or anything that’s out there.” [FHWA#22]

The same business owner added that it would be helpful to split “structural steel away from structural concrete” because the work is different, and it would reduce the number of faxes she receives for work she does not perform. [FHWA#22]

- The non-Hispanic white male owner of an engineering firm stated it would be beneficial to small businesses if Caltrans unbundled more projects into smaller projects. He also said that Caltrans should sponsor more opportunities for small firms to engage with decision makers for projects so that Caltrans can become more familiar with businesses desiring to bid work. [FHWA#42]
- The Black American male owner of a DBE- and SBE-certified construction-related firm stated, “There has to be some way to try and spread the money out [and] not allow [primes] to just use who they have been using for the last 20 years.” [FHWA#19]
- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm stated that agencies look to Caltrans as the “mother lode” for direction on most issues; however, the agencies choose “cafeteria-style” what guidelines they want to follow for the project. She further remarked that there should be standardized instructions and compliance requirements. [FHWA#3]
- The non-Hispanic white male owner of a specialty contracting company, regarding additional measures Caltrans could take to help small businesses, said, “Caltrans could send out some letters to smaller companies on things that are coming up for bid, whether it be internet, or e-mail. More outreach and noticing of bid opportunities to small businesses.” [FHWA#51]
- The non-Hispanic white male owner of an SBE-certified specialty consulting company suggested that there be “more coordination between Caltrans and whoever else [issues certifications] because I know especially in regards to certifications, different agencies have

these different qualifications, and I think a lot of them accept the Caltrans qualification, but some of them are their own. Can't we just have one set of qualifications that everybody uses?" [FHWA#17]

- The non-Hispanic white male owner of an SBE-certified specialty consulting company suggested that Caltrans more carefully monitor subcontractors hired by primes. He said that Caltrans will often hire a large union company as the prime contractor and that the prime contractor then hires a union subcontractor, even if that subcontractor is unqualified for a particular job. He added that he blames Caltrans for this because it is their responsibility to ensure the choosing of appropriate subcontractors for a project. [FHWA#29]

- The Hispanic American female owner of a DBE-, MBE-, WBE-, and SBE- certified specialty construction firm reported that, as a second- or third-tier subcontractor, Caltrans does not know the depth of a firm's ability. She added that Caltrans relies on word of mouth to learn about the skills of firms with which they work. [FHWA#3]

The same business owner commented that L.A. Metro is willing to talk directly to lower-tiered subcontractors, and agencies like Caltrans need to take more of an interest in learning about the subcontractors. [FHWA#3]

- The non-Hispanic white male owner of an SBE-certified specialty contracting company recalled that there used to be a 5 percent bid preference for local vendors. He said, "[You] could be 5 percent higher [on your bid] and still get the job, if you were local. They don't do that anymore, [but] it was always convenient. We like that, keep the local work local." [FHWA#32]
- The Black American female owner of a DBE- and SLBE-certified construction-related business said, "[Public agencies] need to have a sensitivity training for the employees and the employees need to understand when partners come in, even if it's a small business, that they need to be more cognizant of that small business." [FHWA#48]
- When asked if he had any other suggestions for Caltrans contracting, the Black American male owner of a DBE- and MBE-certified construction company responded that he would love to see the ability to obtain a line of credit that could only be used for payroll. He said, "That would help a lot of small businesses out. They're always going to need help with the funding, just needs to be carefully monitored." [FHWA#60]

Final comments. Some provided final comments on the certification processes and race- and gender-based programs. For example:

- When asked if he had any final comments the non-Hispanic white male owner of an SBE- and DVBE-certified specialty construction firm responded, "I've been in construction for 50 years. I love California. I about fell down one time when I looked at the Caltrans budget for one year. Did you know that there was one year that they [Caltrans] increased their budget by 100 percent?" [FHWA#8]

The same business owner expressed concern that the Caltrans is not awarding projects to the best companies. He said, "You've got people out here that, that are so knowledgeable and so good at what they do, and I worked with them for years and they do things that

were just amazing and when you look at the people bidding Caltrans work, you look at people who aren't that type of contractor. But they get the work and then you've got to ask, 'Why?'" The interviewee added that Caltrans does not seem to be interested in discovering why the best contractors are not bidding or winning contracts. He said, "And if they did find out why, they probably wouldn't tell the truth. They cannot be trusted. They cannot; you cannot trust any of those [people] because a contractor with a lot of money can always go to a politician and use the politician to influence people in Caltrans. It's done all the time." [FHWA#8]

- The non-Hispanic white male owner of a specialty construction firm said, "It's just like the tax code. It just grows. They don't take away; they just add to it to the point. I just think that you just [need to] make things simple." [FHWA#18]
- Regarding Caltrans' support of small and local businesses, the Subcontinent Asian American female owner of a DBE- and LWBE-certified engineering firm stated, "They have to do better. After all, this is public money, our tax money. The majority of the people that pay taxes are middle-income people, small businesses. If they don't support these businesses, they are not supporting the source of their funding. We just want the opportunity to work. Otherwise, our talent is really wasted." [FHWA#50]
- The Black American male owner of a DBE-, MBE-, and SBE-certified specialty construction firm remarked, "I'd like to see [Caltrans] really scrutinize the whole [DBE] process more closely from a dollar standpoint. [If] there's a \$400 million project and you're working on the job and you're doing everything correctly, you have no issues, it's just wrong [and] bad business for the contractor [to stop using you] because you've gotten to your \$9,000 mark that they wrote your name down for [in order] to get rid of you and bring in their buddy." [FHWA#10]
- The non-Hispanic white male owner of an SBE-certified specialty contracting reported that Caltrans' use of the metric system makes working with Caltrans difficult. He said, "They do things in metric, but nobody else does metric. So, it's a pain. Caltrans is the only agency that does that." [FHWA#32]
- The Black American male representative of a minority trade organization recommended, "The CEO at the helm of Caltrans should stop giving all of the contracts and signing off all of the contracts for the firms where former Caltrans staffers work. That's too obvious, and they've all done it." [FHWA#52]
- The non-Hispanic white male owner of an SBE-, DVBE-, and SDVOSB-certified consulting firm suggested the state mandate that primes be subject to a three percent DVBE participation requirement. [FHWA#45a]
- When asked if he had any final comments, the non-Hispanic white male representative of a Subcontinent Asian American MBE-certified services provider stated that they would like to work with "the [Santa Clara Valley Transportation Authority and the city of San Jose] because it is a steady income." [FHWA#21]
- The Subcontinent Asian American male owner of an MBE-certified professional services firm said, "The main thing is, for [subcontractors], [agencies] need to let the prime release

the information to all the subs about potential assignment so [all of the subcontractors] have a shot at getting to do the good work.” [FHWA#14]

The same business owner suggested, “Cutting down big contracts just for small businesses to compete without the big business because I guess the playing field is not level.” [FHWA#14]

- When asked if he had final comments, the non-Hispanic white male owner of an SBE-certified specialty consulting company stated, “I don’t pursue public works projects. I don’t care anymore what public works people think.” [FHWA#29]
- The male owner of a DBE-certified specialty supplier firm faced barriers in securing work when selected by a prime to supply materials. However, Caltrans notified him that they had disqualified his firm. He expressed concerns that his firm is DBE-certified, and Caltrans should not disqualify his firm after the prime won the award. [FHWA-PF#11]
- The non-Hispanic white female owner of a WBE-certified specialty construction firm suggested that requirements to use union workers prevent her firm from working more on Caltrans projects. She said, “I would like to work on Caltrans projects, but I just was on the understanding you had to be a union, and we’re not. And so, it’s at a disadvantage for us.” [FHWA#7]

The same business owner added, “Actually, my son-in-law who used to work for me went to a company that does do Caltrans [projects], and I’m capable of doing it. I can do it, but I refuse to join a union. I don’t want to be a union and I don’t think anybody should be forced to be union just to work on a certain project.” [FHWA#7]

- The non-Hispanic white male representative of an engineering firm commented that they have had a positive experience with Caltrans when they have the opportunity to meet with regional leaders and talk about the scope of our work. He said that having a kickoff meeting improved the overall process, compared to not having a meeting. [FHWA#33]
- The Black American male owner of a DBE-, MBE-, and CUCP-certified specialty construction firm suggested that Caltrans establish specification standards that are consistent with material and supplies from the regions where the projects exist. He says changing the specification standards would ultimately provide a cost savings for Caltrans. [FHWA#47]
- When asked for final comments, the female representative of a CUCP WBE- certified specialty construction firm responded, “Well, the process that we’ve experienced with [Kern] County has been pretty smooth. [FHWA#16]
- The Hispanic American male owner of a non-certified specialty construction company said that he has never before considered getting certified but is now interested in pursuing more information about the process. [FHWA#40]
- When asked for final comments, the Hispanic American female owner of a WBE-, SBE-, and MBE-certified general contracting firm explained that her ability to take full advantage of DBE opportunities is limited because of her type of license. She said, “I think if we would have had the right one, we probably would have been more opportunities for us to really go out there and do some work.” [FHWA#13]

- When asked if he had any final comments, the Hispanic American male owner of a specialty contracting business stated, “One of the things that would be of benefit for any small business or minority business or whatever status it may be, just small business in general, [would be] if the pay process was streamlined. That would obviously be of great benefit. And [streamlining] the claims process also would be of great benefit, so that doesn’t hinder operating capital for said small businesses.” [FHWA#9]
- The non-Hispanic white male representative of a general contracting company said, “Unfortunately, [the construction industry has] recently been experiencing a brain drain.” He said that he is seeing a trend across the industry where many individuals do not want to enter construction. He added that he is seeing many foreign hires that are from all over the world, “so we are dealing with different cultural views.” He went on to say that “we are accustomed to doing things a certain way and these guys from where they come from [are different in] how they treat contractors how they treat negotiations or how they treat conflict.” He also noted, “This is Caltrans’ challenge right now, and it is not going to get any easier for our industry for the next 15 to 20 years.” [FHWA#41]
- In his final comments, the Hispanic American male owner of a DBE- and MBE-certified specialty contracting company suggested that there should be a change with the waiver of subrogation because it has a crippling effect for small businesses. [FHWA#46a]
- The Black American male owner of a DBE- and MBE-certified construction company commented that Caltrans should schedule events like forums or seminars at more opportune times to make them more accessible for small businesses that cannot attend during the day. He said, “If I have a contract, I cannot stop my work to attend a day forum or seminar.” He also suggested Caltrans should provide online viewings of meetings so that he could watch what was discussed at a later time as well as provide an email for questions. [FHWA#60]

APPENDIX E.

Availability Analysis Methodology

APPENDIX E.

Availability Analysis Methodology

The study team used a *custom census* approach to analyze the availability of minority- and woman-owned businesses for transit-related professional services and goods and services prime contracts and subcontracts that the California Department of Transportation (Caltrans) and subrecipient local agencies awarded between October 1, 2014 and September 30, 2017.

Appendix E expands on the information presented in Chapter 5 to describe the study team's:

- A. Collecting availability information;
- B. Business establishments list;
- C. Survey instrument;
- D. Survey execution; and
- E. Additional considerations.

A. Collecting Availability Information

As part of the 2016 Caltrans Federal Highway Administration Disparity Study, BBC Research & Consulting (BBC) contracted with Customer Research International (CRI) to conduct telephone surveys with thousands of business establishments in California—which BBC identified as the *relevant geographic market area* for Caltrans' transit-related contracting—that perform work in fields closely related to the types of transit-related contracts that Caltrans and subrecipient local agencies awarded during the study period. The study team began the survey process by identifying 8-digit Dun & Bradstreet (D&B) work specialization codes that best corresponded to the work involved in each relevant contract element.¹ The study team then collected information about local business establishments that D&B listed as having their primary lines of business within those work specializations.

B. Business Establishments List

The objective of BBC's availability approach was not to collect information about each and every business that is operating in the relevant geographic market area. Instead, it was to collect information from a large, unbiased subset of local businesses that appropriately represents the entire relevant business population. That approach allowed BBC to estimate the availability of minority- and woman-owned businesses in an accurate, statistically-valid manner. In addition, BBC did not design the research effort so that the study team would contact every local business possibly performing professional services and goods and services work. Instead, BBC determined the types of work that were most relevant to Caltrans' transit-related contracting by

¹ D&B has developed 8-digit industry codes that provide more precise definitions of business specializations than the 4-digit Standard Industrial Classification (SIC) codes or the North American Industry Classification System (NAICS) codes that the federal government has prepared.

assessing prime contract and subcontract dollars that went to different types of businesses during the study period.

Figure E-1 lists the 8-digit work specialization codes within professional services and goods and services that were most related to the relevant contract and procurement dollars that Caltrans and subrecipient local agencies awarded during the study period and that BBC included as part of the availability analysis. The study team grouped those specializations into distinct *subindustries*, which are presented as headings in Figure E-1.

Figure E-1.
Subindustries included in the availability analysis

Source:
BBC Research & Consulting.

Industry Code	Industry Description
Goods and Services	
Transit services	
41110101	Bus line operations
41190000	Local passenger transportation
41110000	Local and suburban transit
41190000	Local rental transportation
Communications equipment	
59990602	Communication equipment
Other goods	
34480101	Buildings, portable: prefabricated metal
Parking services	
72991105	Valet parking
Professional Services	
Engineering	
87110400	Construction and civil engineering
87110402	Civil engineering
Business services and consulting	
87420504	New business start-up consultant
Environmental services and transportation planning	
87420410	Transportation consultant
87480204	Traffic consultant

C. Survey Instrument

BBC created an availability survey instrument to collect business information from professional services and goods and services business establishments in California. As an example, the survey instrument that the study team used with professional services establishments is presented at the end of Appendix E.²

Survey structure. The availability survey included 15 sections, and CRI attempted to cover all sections with each business establishment that they successfully contacted and that was willing

² BBC also developed a fax and e-mail version of the survey instrument for business establishments that indicated a preference to complete the survey in those formats.

to complete a survey. Surveyors did not know the race/ethnicity or gender of business owners when calling business establishments.

1. Identification of purpose. The surveys began by identifying Caltrans as the survey sponsor and describing the purpose of the study (e.g., “Caltrans is developing a list of companies interested in providing services or materials to transit and transportation agencies”).

2. Verification of correct business name. The surveyor verified that he or she had reached the correct business, and if not, inquired about the correct contact information for the correct business. When the business name was not correct, surveyors asked if the respondent knew how to contact the business. CRI followed up with the desired company based on the new contact information (see areas “X” and “Y” of the availability survey at the end of Appendix E).

3. Verification of work related to relevant projects. The surveyor asked whether the organization does work or provides materials related to construction, maintenance, or design on transportation- or transit-related projects (Question A1). Surveyors only continued the survey with businesses that responded “yes” to that question.

4. Verification of for-profit business status. The surveyor asked whether the organization was a for-profit business as opposed to a government or nonprofit entity (Question A2). Surveyors only continued the survey with businesses that responded “yes” to that question.

5. Confirmation of main lines of business. Businesses confirmed their main lines of business according to D&B (Question A3a). If D&B’s work specialization codes were incorrect, businesses then described their main lines of business (Question A3b). After the survey was complete, as necessary, BBC coded new information on main lines of business into appropriate 8-digit D&B work specialization codes.

6. Sole location or multiple locations. Because the study team surveyed business establishments and not businesses or firms, the surveyor asked business owners or managers if their businesses had other locations (Question A4) and whether their establishments were affiliates or subsidiaries of other businesses (Questions A5 and A6).

7. Past bids or work with government agencies and private sector organizations. The surveyor asked about bids and work on past government and private sector contracts. CRI asked those questions in connection with both prime contracts and subcontracts (Questions B1 and B2).³

8. Qualifications and interest in future work. The surveyor asked about businesses’ qualifications and interest in future work with state or local government agencies in California. CRI asked those questions in connection with both prime contracts and subcontracts (Questions B3 through B6).⁴

³ Goods and services businesses were not asked questions about subcontract work.

⁴ Goods and services businesses were not asked questions about subcontract work.

9. Geographic areas. The surveyor asked questions about the geographic regions within California in which businesses serve customers (Questions C1 through C1j).

10. Year established. The surveyor asked businesses to identify the approximate year in which they were established (Question D1).

11. Largest contracts. The study team asked businesses to identify the value of the largest contract on which they had bid on or had been awarded during the past five years. CRI asked those questions for both prime contracts and subcontracts (Questions D2 through D4).⁵

12. Ownership. The surveyor asked whether businesses were at least 51 percent owned and controlled by women and/or minorities. If businesses indicated that they were minority-owned, they were also asked about the race/ethnicity of their business' ownership (Questions E1 through E3). The study team confirmed that information through several other data sources including:

- Caltrans' directory of certified Disadvantaged Business Enterprises (DBEs);
- Caltrans' vendor data;
- Caltrans staff review; and

Information from D&B and other sources.

When information about race/ethnicity or gender of ownership conflicted between sources, the study team reconciled that information through various means, including follow-up telephone calls with businesses.

13. Business revenue. The surveyor asked several questions about the size of businesses in terms of their revenues. For businesses with multiple locations, the Business Revenue section also asked about their revenues and number of employees across all locations (Questions F1 through F3).

14. Potential barriers in the marketplace. The surveyor asked an open-ended question concerning general insights about conditions in the local marketplace (Question G1). In addition, the survey included a question asking whether respondents would be willing to participate in a follow-up interview about conditions in the local marketplace (Question G2).

15. Contact information. The survey concluded with questions about the participant's name and position with the organization (Questions H1 and H2).

D. Survey Execution

CRI conducted all surveys in 2016 and 2019. CRI programmed the surveys; conducted them via telephone, online, or fax; and provided BBC with the data. To minimize non-response, CRI made up to five attempts during different times of the day and on different days of the week to

⁵ Goods and services businesses were not asked questions about subcontract work.

successfully reach each business establishment. CRI attempted to survey an appropriate company representative such as the owner, manager, chief financial officer, or other key official who could provide accurate and detailed responses to survey questions.

Establishments that the study team successfully contacted. Figure E-2 presents the disposition of the 2,224 business establishments that the study team attempted to contact for availability surveys and how that number resulted in the 866 establishments that the study team was able to successfully contact.

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

Source:
BBC Research & Consulting availability analysis.

	Number of Establishments
Beginning list	2,224
Less duplicate phone numbers	12
Less non-working phone numbers	409
Less wrong number/business	64
Unique business listings with working phone numbers	1,739
Less no answer	772
Less could not reach responsible staff member	70
Less language barrier	<u>31</u>
Establishments successfully contacted	866

Non-working or wrong phone numbers. Some of the business listings that the study team purchased from D&B and that CRI attempted to contact were:

- Duplicate phone numbers (12 listings);
- Non-working phone numbers (409 listings); or
- Wrong numbers for the desired businesses (64 listings).

Working phone numbers. As shown in Figure E-2, there were 1,739 business establishments with working phone numbers that CRI attempted to contact. CRI was unsuccessful in contacting many of those businesses for various reasons:

- CRI could not reach anyone after five attempts at different times of the day and on different days of the week for 772 establishments.
- CRI could not reach a responsible staff member after five attempts at different times of the day on different days of the week for 70 establishments.
- CRI could not conduct the availability survey due to language barriers for 31 establishments.

After taking those unsuccessful attempts into account, CRI was able to successfully contact 866 business establishments, or about 50 percent of establishments with valid phone listings.

Establishments included in the availability database. Figure E-3 presents the disposition of the 866 business establishments that CRI successfully contacted and how that number

resulted in the 146 businesses that the study team included in the availability database and that the study team considered potentially available for Caltrans’ transit-related work.

**Figure E-3.
Disposition of
successfully contacted
business
establishments**

Source:
BBC Research & Consulting
availability analysis.

	Number of Establishments
Establishments successfully contacted	866
Less establishments not interested in discussing availability for work	555
Less unreturned fax/email surveys	68
Establishments that completed surveys	243
Less no relevant work	58
Less not a for-profit business	9
Less line of work outside of study scope	12
Less no interest in future work	13
Less established after study period	2
Less multiple establishments	3
Establishments potentially available for entity work	146

Establishments not interested in discussing availability. Of the 866 business establishments that the study team successfully contacted, 555 establishments were not interested in discussing their availability for Caltrans work. In total, 243 (28%) successfully-contacted business establishments completed availability surveys.

Establishments available for Caltrans work. The study team only deemed a portion of the business establishments that completed availability surveys as potentially available for the prime contracts and subcontracts that Caltrans and subrecipient local agencies awarded during the study period. The study team excluded many of the business establishments that completed surveys from the availability database for various reasons:

- BBC excluded 58 establishments that indicated that their businesses were not involved in relevant contracting work.
- BBC sent hardcopy fax or e-mail availability surveys upon request but did not receive completed surveys from 68 establishments.
- Of the establishments that completed availability surveys, nine indicated that they were not a for-profit business. The survey ended when respondents reported that their establishments were not for-profit businesses.
- BBC excluded 12 establishments that indicated that their businesses were involved in professional services or goods and services work but reported that their main lines of business were outside of the study scope.
- BBC excluded 13 establishments that reported not being qualified or interested in either prime contracting or subcontracting opportunities with state or local government agencies in California.

Three establishments represented different locations of the same business. BBC combined responses from those establishments into a single data record prior to analysis.

After those exclusions, BBC compiled a database of 146 businesses that were considered potentially available for Caltrans' transit-related work.

Coding responses from multi-location businesses. Responses from different locations of the same business were combined into a single summary data record according to several rules:

- If any of the establishments reported bidding or working on a contract within a particular subindustry, the study team considered the business to have bid or worked on a contract in that subindustry.
- The study team combined the different roles of work—that is, as prime contractors or subcontractors—that establishments of the same business reported into a single response corresponding to the appropriate subindustry. For example, if one establishment reported that it works as a prime contractor and another establishment reported that it works as a subcontractor, then the study team considered the business as available for both prime contracts and subcontracts within the relevant subindustry.⁶
- BBC considered the largest contract that any establishments of the same business reported having bid or worked on as the business' relative capacity (i.e., the largest contract for which the business could be considered available).
- BBC considered the largest revenue total that any establishments of the same business reported as the business' revenue cap (to determine status as a potential DBE).
- BBC determined the number of employees for businesses by calculating the mode or the mean of responses from its establishments.
- BBC coded businesses as minority- or woman-owned if the majority of its establishments reported such status.

E. Additional Considerations

The study team made several additional considerations related to its approach to measuring availability to ensure that the study team's estimates of the availability of minority- and woman-owned businesses for Caltrans' transit-related work were as accurate as possible.

Not providing a count of all businesses available for relevant work. The purpose of the availability analysis was to provide accurate and representative estimates of the percentage of Caltrans' transit-related contracting dollars for which minority- and woman-owned businesses are available. The availability analysis did not provide a comprehensive listing of every business that could be available for such work and should not be used in that way. Federal courts have approved BBC's approach to measuring availability. In addition, federal regulations, such as the United States Department of Transportation's (USDOT's) "Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program" recommend similar approaches to

⁶ Goods and services businesses were not asked questions about subcontract work.

measuring availability for agencies implementing minority- and woman-owned owned business programs.⁷

Not basing the availability analysis on certification directories, prequalification lists, or bidders lists. Federal guidance, such as USDOT guidance for determining the availability of minority- and woman-owned businesses, recommends dividing the number of businesses in an agency's certification directory by the total number of businesses in the marketplace as reported in United States Census data. As another option, USDOT suggests using a list of prequalified businesses or a bidders list to estimate the availability of minority- or woman-owned businesses for an agency's prime contracts and subcontracts. The primary reason why the study team rejected such approaches when measuring the availability of minority- and woman-owned businesses for Caltrans' transit-related work is that dividing a simple count of certified businesses by the total number of businesses does not provide the data on business characteristics that the study team desired for the disparity study. For example, the surveys provided data on qualifications, relative capacity, and interest in relevant work for each business, which allowed the study team to take a more refined approach to measuring availability. Court cases involving implementations of minority- and woman-owned business programs have approved the use of such approaches to measuring availability.⁸

Using D&B lists as the sample frame. BBC began its custom census approach of measuring availability with D&B business lists. D&B does not require businesses to pay a fee to be included in its listings; it is completely free to listed businesses. D&B provides the most comprehensive database of business listings in the United States. Even so, the database does not include all establishments operating in California:

- There can be a lag between formation of a new business and inclusion in D&B, meaning that the newest businesses may be underrepresented in the sample frame. Based on information from BBC's survey effort, newly formed businesses are more likely to be minority- or woman-owned, suggesting that minority- and woman-owned businesses might be underrepresented in the final availability database.
- 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 woman-owned, which again suggests that minority- and woman-owned businesses might be underrepresented in the final availability database.

BBC is not able to quantify the degree to which minority- and woman-owned businesses were underrepresented in the final availability database, if at all. However, estimates presented in the

⁷ Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, <http://www.osdbu.dot.gov/dbeprogram/tips.cfm>.

⁸ Note that BBC used MBE/WBE and DBE certification directories and other sources of information to confirm information about the race/ethnicity and gender of business ownership that it obtained from availability surveys.

disparity study should be considered conservative estimates of the availability of minority- and woman-owned businesses.

Selection of specific subindustries. Defining subindustries based on specific work specialization codes (e.g., NAICS or D&B industry codes) is a standard step in analyzing businesses in an economic sector. Government and private sector economic data are typically organized according to such codes. As with any such research, there are limitations when choosing specific D&B work specialization codes to define sets of establishments to be surveyed. For example, it was not possible for BBC to include all businesses possibly doing work in relevant industries without conducting surveys with nearly every business in the relevant geographic market area.

In addition, some industry codes are imprecise and overlap with other business specialties. Some businesses span several types of work, even at the 8-digit level of specificity. That overlap can make classifying businesses into single main lines of business difficult and imprecise. When the study team asked business owners and managers to identify main lines of business, they often gave broad answers. For those and other reasons, BBC collapsed many of the work specialization codes into broader subindustries to more accurately classify businesses in the availability database.

Response reliability. Business owners and managers were asked questions that may be difficult to answer including questions about their revenues. For that reason, the study team collected corresponding D&B information for their establishments and asked respondents to confirm that information or provide more accurate estimates. Further, respondents were not typically asked to give absolute figures for difficult questions such as revenue and capacity. Rather, they were given ranges of dollar figures. BBC explored the reliability of survey responses in a number of ways. For example:

BBC reviewed data from the availability surveys in light of information from other sources such as vendor information that the study team collected from Caltrans. For example, certification databases include data on the race/ethnicity and gender of the owners of DBE-certified businesses. The study team compared survey responses concerning business ownership with that information.

- BBC examined Caltrans contract data to further explore the largest contracts and subcontracts awarded to businesses that participated in the availability surveys. BBC compared survey responses about the largest contracts that businesses won during the past five years with actual contract data.
- Caltrans reviewed vendor data that the study team collected and compiled as part of the availability analysis and provided feedback regarding its accuracy.

DRAFT Caltrans Availability Survey Instrument [Professional Services]

Hello. My name is [*interviewer name*] from Customer Research International. We are calling on behalf of the California Department of Transportation (Caltrans). This is not a sales call. Caltrans is conducting a survey to develop a list of companies interested in providing professional services to transit and transportation agencies. The survey should take between 10 and 15 minutes to complete. Who can I speak with to get the information we need from your firm?

[AFTER REACHING AN APPROPRIATE SENIOR STAFF MEMBER, THE INTERVIEWER SHOULD RE-INTRODUCE THE PURPOSE OF THE SURVEY AND BEGIN WITH QUESTIONS]

[IF ASKED, THE INFORMATION DEVELOPED IN THESE INTERVIEWS WILL ADD TO CALTRANS' EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH THE DEPARTMENT]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm that this is [*firm name*]?

- 1=RIGHT COMPANY – **SKIP TO A1**
- 2=NOT RIGHT COMPANY
- 99=REFUSE TO GIVE INFORMATION – **TERMINATE**

Y1. What is the name of this firm?

- 1=VERBATIM

Y2. Can you give me any information about [*new firm name*]?

- 1=Yes, same owner doing business under a different name – **SKIP TO Y4**
- 2=Yes, can give information about named company
- 3=Company bought/sold/changed ownership – **SKIP TO Y4**
- 98=No, does not have information – **TERMINATE**
- 99=Refused to give information – **TERMINATE**

Y3. Can you give me the complete address or city for [new firm name]?

[NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT]:

. STREET ADDRESS

. CITY

. STATE

. ZIP

1=VERBATIM

Y4. Can you give me the name of the owner or manager of [new firm name]?

[ENTER UPDATED NAME]

1=VERBATIM

Y5. Can I have a telephone number for him/her?

[ENTER UPDATED PHONE]

1=VERBATIM

Y6. Do you work for this new company?

1=YES

2=NO – **TERMINATE**

A1. First, I want to confirm that your firm does work or provides services or materials related to construction, maintenance, or design on transportation- or transit-related projects. Is this correct?

(NOTE TO INTERVIEWER – INCLUDES ANY WORK RELATED TO THE CONSTRUCTION, MAINTENANCE, OR DESIGN OF TRANSIT FACILITIES; BUILDING AND PARKING FACILITIES; PAVING AND CONCRETE; TUNNELS, BRIDGES, AND ROADS; RAIL LINES; AND OTHER TRANSPORTATION- AND TRANSIT-RELATED PROJECTS. THIS ALSO INCLUDES TRANSIT AND ENVIRONMENTAL PLANNING.)

(NOTE TO INTERVIEWER - INCLUDES HAVING DONE WORK, TRYING TO SELL THIS WORK, OR PROVIDING MATERIALS)

1=Yes

2=No - **TERMINATE**

A2. Let me confirm that [firm name/new firm name] is a for-profit business, as opposed to a non-profit organization, a foundation, or a government office. Is that correct?

1=Yes, a business

2=No, other - **TERMINATE**

A3a. Let me also confirm what kind of business this is. The information we have from Dun & Bradstreet indicates that your main line of business is [SIC Code description]. Is this correct?

[NOTE TO INTERVIEWER - IF ASKED, DUN & BRADSTREET OR D&B, IS A COMPANY THAT COMPILES INFORMATION ON BUSINESSES THROUGHOUT THE COUNTRY]

1=Yes – **SKIP TO A4**

2=No

98=(DON'T KNOW)

99=(REFUSED)

A3b. What would you say is the main line of business at [firm name/new firm name]?

[NOTE TO INTERVIEWER- IF RESPONDENT INDICATES THAT FIRM'S MAIN LINE OF BUSINESS IS "GENERAL CONSTRUCTION" OR "GENERAL CONTRACTOR," PROBE TO FIND OUT IF MAIN LINE OF BUSINESS IS CLOSER TO BUILDING CONSTRUCTION OR HIGHWAY AND ROAD CONSTRUCTION.]

1=VERBATIM

A4. Is this 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)

99=(REFUSED)

A5. 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**

99=(REFUSED) – **SKIP TO B1**

A6. What is the name of your parent company?

1=VERBATIM

98=(DON'T KNOW)

99=(REFUSED)

B1. Next, I have a few questions about your company's role in doing work or providing services or materials related to construction, maintenance, or design. During the past five years, has your company submitted a proposal or received an award for any part of a contract in California as a prime consultant or subconsultant?

[NOTE TO INTERVIEWER – THIS INCLUDES PUBLIC OR PRIVATE SECTOR WORK OR BIDS]

1=Yes

2=No – **SKIP TO B3**

98=(DON'T KNOW) – **SKIP TO B3**

99=(REFUSED) – **SKIP TO B3**

B2. Were those proposals or awards to work as a prime consultant, a subconsultant, or both?

[MULTIPUNCH]

1=Prime consultant

2=Subconsultant

98=(DON'T KNOW)

99=(REFUSED)

B3. Please think about future construction, maintenance, or design-related work as you answer the following few questions. Is your company *qualified and interested* in working with Caltrans as a prime consultant?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

B4. Is your company *qualified and interested* in working with Caltrans as a subconsultant?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

B5. Is your company *qualified and interested* in working with cities, counties, or other local transportation or transit agencies in California as a prime consultant?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

B6. Is your company *qualified and interested* in working with cities, counties, or other local transportation or transit agencies in California as a subconsultant?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

Now I want to ask you about the geographic areas your company serves within California. As you answer, think about whether your company could be involved in potential transportation or transit-related projects in that region.

C1. Is your company able to serve all regions of California or only certain regions of the state?

1=All of the state– **SKIP TO D1**

2=Only parts of the state

98=(DON'T KNOW)

99=(REFUSED)

C1a. Could your company do work in the North Coast Region, extending from Mendocino through Eureka to the Oregon border?

[NOTE TO INTERVIEWER: IF ASKED, THE NORTH COAST REGION IS CALTRANS DISTRICT 1, WHICH INCLUDES DEL NORTE, HUMBOLDT, LAKE, AND MENDOCINO COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1b. Could your company do work in the Shasta-Redding Area, extending from Red Bluff through Redding to the Oregon border?

[NOTE TO INTERVIEWER: IF ASKED, THE SHASTA-REDDING AREA IS CALTRANS DISTRICT 2, WHICH INCLUDES LASSEN, MODOC, PLUMAS, SHASTA, SISKIYOU, TEHAMA, AND TRINITY COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1c. Could your company do work in the Sacramento-Tahoe Region, extending from Sacramento Valley to Lake Tahoe and up to Chico?

[NOTE TO INTERVIEWER: IF ASKED, THE SACRAMENTO-TAHOE AREA IS CALTRANS DISTRICT 3, WHICH INCLUDES BUTTE, COLUSA, EL DORADO, GLENN, NEVADA, PLACER, SACRAMENTO, SIERRA, SUTTER, YOLO, AND YUBA COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1d. Could your company do work in the San Francisco Bay Area, extending from San Jose to Santa Rosa?

[NOTE TO INTERVIEWER: IF ASKED, THE SAN FRANCISCO BAY AREA IS CALTRANS DISTRICT 4, WHICH INCLUDES ALAMEDA, CONTRA COSTA, SONOMA, MARIN, SAN FRANCISCO, SAN MATEO, SANTA CLARA, SOLANO, AND NAPA COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1e. Could your company do work in the Central Coast Region, extending from Santa Barbara to Salinas?

[NOTE TO INTERVIEWER: IF ASKED, THE CENTRAL COAST REGION IS CALTRANS DISTRICT 5, WHICH INCLUDES MONTEREY, SAN BENITO, SAN LUIS OBISPO, SANTA BARBARA, AND SANTA CRUZ COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1f. Could your company do work in the Central Valley, extending from Bakersfield to Stockton?

[NOTE TO INTERVIEWER: IF ASKED, THE CENTRAL VALLEY IS CALTRANS DISTRICTS 6 AND 10, WHICH INCLUDE ALPINE, AMADOR, CALAVERAS, FRESNO, KERN, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS, TUOLUMNE, AND TULARE COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1g. Could your company do work in the Bishop Region, extending from Bishop to Mono Lake along the Nevada border?

[NOTE TO INTERVIEWER: IF ASKED, THE BISHOP AREA IS CALTRANS DISTRICT 9, WHICH INCLUDES INYO AND MONO COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1h. Could your company do work in the San Bernardino-Riverside Region, including San Bernardino and Riverside and extending east to Arizona?

[NOTE TO INTERVIEWER: IF ASKED, THE SAN BERNARDINO-RIVERSIDE AREA IS CALTRANS DISTRICT 8, WHICH INCLUDES RIVERSIDE AND SAN BERNARDINO COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1i. Could your company do work in the Los Angeles Basin, extending from San Clemente to Ventura and east to Pomona?

[NOTE TO INTERVIEWER: IF ASKED, THE LOS ANGELES BASIN IS CALTRANS DISTRICTS 7 AND 12, WHICH INCLUDE LOS ANGELES, VENTURA, AND ORANGE COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

C1j. Could your company do work in the San Diego Region, extending from San Diego and Oceanside east to the Arizona border?

[NOTE TO INTERVIEWER: IF ASKED, THE SAN DIEGO AREA IS CALTRANS DISTRICT 11, WHICH INCLUDES SAN DIEGO AND IMPERIAL COUNTIES.]

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

D1. About what year was your firm established?

1=NUMERIC (1600-2019)

9998 = (DON'T KNOW)

9999 = (REFUSED)

D2. What was the largest prime contract that your company bid on or was awarded in California during the past five years in either the public sector or private sector? This includes contracts not yet complete.

(NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY)

1=\$100,000 or less

9=More than \$20 million to \$50 million

2=More than \$100,000 to \$250,000

10=More than \$50 million to \$100 million

3=More than \$250,000 to \$500,000

11= More than \$100 million to \$200 million

4=More than \$500,000 to \$1 million

12=\$200 million or greater

5=More than \$1 million to \$2 million

97=(NONE)

6=More than \$2 million to \$5 million

98=(DON'T KNOW)

7=More than \$5 million to \$10 million

99=(REFUSED) /(NO PRIME BIDS)

8=More than \$10 million to \$20 million

D3. What was the largest subcontract or supply contract that your company bid on or was awarded in California during the past five years in either the public sector or private sector? This includes contracts not yet complete.

[NOTE TO INTERVIEWER – READ CATEGORIES IF NECESSARY]

1=\$100,000 or less

9=More than \$20 million to \$50 million

2=More than \$100,000 to \$250,000

10=More than \$50 million to \$100 million

3=More than \$250,000 to \$500,000

11= More than \$100 million to \$200 million

4=More than \$500,000 to \$1 million

12=\$200 million or greater

5=More than \$1 million to \$2 million

97=(NONE)

6=More than \$2 million to \$5 million

98=(DON'T KNOW)

7=More than \$5 million to \$10 million

99=(REFUSED) /(NO SUB BIDS)

8=More than \$10 million to \$20 million

E1. My next questions are about the ownership of the business. 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 [*firm name / new firm name*] a woman-owned business?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

E2. A business is defined as minority-owned if more than half — that is, 51 percent or more — of the ownership and control is Black American, Asian American, Hispanic American, Native American, or another minority group. By this definition, is [*firm name/new firm name*] a minority-owned business?

1=Yes

2=No – **SKIP TO F1**

98=(DON'T KNOW) – **SKIP TO F1**

99=(REFUSED) – **SKIP TO F1**

E3. Would you say that the minority group ownership of your company is mostly Black American, Asian-Pacific American, Subcontinent Asian American, Hispanic American, or Native American?

1=Black-American

2=Asian Pacific American (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), the Commonwealth of the Northern Mariana Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic American (persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race)

4=Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)

5=Subcontinent Asian American (persons whose Origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka)

6=(OTHER - SPECIFY) _____

98=(DON'T KNOW)

99=(REFUSED)

F1. Just considering your location, Dun & Bradstreet lists the average annual gross revenue of your company to be [dollar amount]. Is that an accurate estimate for your company's average annual gross revenue over the last three years?

1=Yes – **SKIP TO F3**

2=No

98=(DON'T KNOW) – **SKIP TO F3**

99=(REFUSED) – **SKIP TO F3**

F2. Just considering your location, roughly, what was the average annual gross revenue of your company, over the last three years? Would you say . . .

[READ LIST]

1=Less than \$750,000

6=\$15.1 Million - \$18 Million

2=\$750,000 - \$5.5 Million

7=\$18.1 Million - \$20.5 Million

3=\$5.6 Million - \$7.4 Million

8=\$20.6 Million - \$24 Million

4=\$7.5 Million - \$11 Million

9=\$24.1 Million or more

5=\$11.1 Million - \$15 Million

98= (DON'T KNOW)

99= (REFUSED)

F3. [ONLY IF A4 = 2] Roughly, what was the average annual gross revenue of your company, for all of your locations over the last three years? Would you say . . .

[READ LIST]

1=Less than \$750,000

7=\$18.1 Million - \$20.5 Million

2=\$750,000 - \$5.5 Million

8=\$20.6 Million - \$24 Million

3=\$5.6 Million - \$7.4 Million

9=\$24.1 Million or more

4=\$7.5 Million - \$11 Million

98= (DON'T KNOW)

5=\$11.1 Million - \$15 Million

99= (REFUSED)

6=\$15.1 Million - \$18 Million

G1. We're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences in California within the past five years. Do you have any thoughts to share on these topics?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

97=(NOTHING/NONE/NO COMMENTS)

98=(DON'T KNOW)

99=(REFUSED)

G2. Would you be willing to participate in a follow-up interview about any of these issues?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

H1. Just a few last questions. What is your name?

1=VERBATIM (FULL NAME)

H2. What is your position at [*firm name/new firm name*]?

1=Receptionist

2=Owner

3=Manager

4=CFO

5=CEO

6=Assistant to Owner/CEO

7=Sales manager

8=Office manager

9=President

9=(OTHER - SPECIFY) _____

99=(REFUSED)

Thank you very much for your participation. If you have any questions or concerns, please contact Sharon Beasley at Caltrans. Ms. Beasley's phone number is (916) 657-5206. Ms. Beasley's email address is Sharon.beasley@dot.ca.gov.

APPENDIX F.

Disparity Tables

Figure F-1.
Appendix F legend

Table	Time period	Contract area	Contract role	Size	Characteristics				
					Division	Funding	Goals	Potential DBE	Agencies
F-2	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-3	10/1/14-2/29/16	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-4	3/1/16-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-5	10/1/14-9/30/17	Professional services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-6	10/1/14-9/30/17	Goods and services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-7	10/1/14-9/30/17	All industries	Prime contracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-8	10/1/14-9/30/17	All industries	Subcontracts	N/A	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-9	10/1/14-9/30/17	All industries	Prime contracts	Large	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-10	10/1/14-9/30/17	All industries	Prime contracts	Small	DRMT and DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-11	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT	Federal and non-federal	Goals and no goals	N/A	All agencies
F-12	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DOTP	Federal and non-federal	Goals and no goals	N/A	All agencies
F-13	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	N/A	All agencies
F-14	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Non-federal	Goals and no goals	N/A	All agencies
F-15	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals	N/A	All agencies
F-16	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal and non-federal	No goals	N/A	All agencies
F-17	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	All agencies
F-18	10/1/14-9/30/17	Professional services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	All agencies
F-19	10/1/14-9/30/17	Goods and services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	All agencies
F-20	10/1/14-9/30/17	All industries	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	Caltrans and Non-MOU agencies
F-21	10/1/14-9/30/17	Professional services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	Caltrans and Non-MOU agencies
F-22	10/1/14-9/30/17	Goods and services	Prime contracts and subcontracts	N/A	DRMT and DOTP	Federal	Goals and no goals	Potential DBE	Caltrans and Non-MOU agencies

Figure F-2.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	354	\$1,123,944	\$1,123,944				
(2) Minority and woman-owned businesses	86	\$53,528	\$53,528	4.8	1.8	3.0	200+
(3) Non-Hispanic white woman-owned	46	\$2,014	\$2,014	0.2	1.3	-1.1	14.2
(4) Minority-owned	40	\$51,513	\$51,513	4.6	0.5	4.1	200+
(5) Asian Pacific American-owned	16	\$595	\$595	0.1	0.1	-0.1	41.9
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.0
(7) Hispanic American-owned	18	\$50,268	\$50,268	4.5	0.2	4.3	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	5	\$650	\$650	0.1	0.0	0.0	165.9
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	53	\$4,780	\$4,780	0.4			
(12) Non-Hispanic white woman-owned DBE	35	\$1,838	\$1,838	0.2			
(13) Minority-owned DBE	18	\$2,941	\$2,941	0.3			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	9	\$2,648	\$2,648	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-3.

Time period: 10/01/2014 - 02/29/2016

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	134	\$529,087	\$529,087				
(2) Minority and woman-owned businesses	35	\$1,632	\$1,632	0.3	1.4	-1.1	21.6
(3) Non-Hispanic white woman-owned	21	\$524	\$524	0.1	1.0	-0.9	9.9
(4) Minority-owned	14	\$1,107	\$1,107	0.2	0.4	-0.2	48.4
(5) Asian Pacific American-owned	6	\$470	\$470	0.1	0.0	0.1	200+
(6) Black American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(7) Hispanic American-owned	8	\$637	\$637	0.1	0.2	-0.1	53.1
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	23	\$583	\$583	0.1			
(12) Non-Hispanic white woman-owned DBE	16	\$496	\$496	0.1			
(13) Minority-owned DBE	7	\$87	\$87	0.0			
(14) Asian Pacific American-owned DBE	3	\$46	\$46	0.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	4	\$41	\$41	0.0			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-4.

Time period: 03/01/2016 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	220	\$594,857	\$594,857				
(2) Minority and woman-owned businesses	51	\$51,896	\$51,896	8.7	2.1	6.6	200+
(3) Non-Hispanic white woman-owned	25	\$1,490	\$1,490	0.3	1.5	-1.2	16.8
(4) Minority-owned	26	\$50,406	\$50,406	8.5	0.6	7.9	200+
(5) Asian Pacific American-owned	10	\$124	\$124	0.0	0.2	-0.2	10.2
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.1
(7) Hispanic American-owned	10	\$49,631	\$49,631	8.3	0.2	8.1	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	5	\$650	\$650	0.1	0.0	0.1	200+
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	30	\$4,197	\$4,197	0.7			
(12) Non-Hispanic white woman-owned DBE	19	\$1,342	\$1,342	0.2			
(13) Minority-owned DBE	11	\$2,854	\$2,854	0.5			
(14) Asian Pacific American-owned DBE	2	\$30	\$30	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	5	\$2,607	\$2,607	0.4			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-5.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	253	\$29,383	\$29,383				
(2) Minority and woman-owned businesses	69	\$6,568	\$6,568	22.4	21.8	0.5	102.4
(3) Non-Hispanic white woman-owned	41	\$1,991	\$1,991	6.8	10.2	-3.5	66.2
(4) Minority-owned	28	\$4,577	\$4,577	15.6	11.6	4.0	134.4
(5) Asian Pacific American-owned	10	\$556	\$556	1.9	4.8	-2.9	39.3
(6) Black American-owned	0	\$0	\$0	0.0	2.4	-2.4	0.0
(7) Hispanic American-owned	14	\$3,418	\$3,418	11.6	3.2	8.4	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	4	\$603	\$603	2.1	1.2	0.9	174.3
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	50	\$4,779	\$4,779	16.3			
(12) Non-Hispanic white woman-owned DBE	35	\$1,838	\$1,838	6.3			
(13) Minority-owned DBE	15	\$2,940	\$2,940	10.0			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	0.3			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	7	\$2,647	\$2,647	9.0			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.7			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-6.

Time period: 10/01/2014 - 09/30/2017

Contract area: Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	101	\$1,094,560	\$1,094,560				
(2) Minority and woman-owned businesses	17	\$46,960	\$46,960	4.3	1.2	3.1	200+
(3) Non-Hispanic white woman-owned	5	\$24	\$24	0.0	1.0	-1.0	0.2
(4) Minority-owned	12	\$46,937	\$46,937	4.3	0.2	4.1	200+
(5) Asian Pacific American-owned	6	\$39	\$39	0.0	0.0	0.0	200+
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.1
(7) Hispanic American-owned	4	\$46,850	\$46,850	4.3	0.1	4.1	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	1	\$47	\$47	0.0	0.0	0.0	102.5
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	3	\$1	\$1	0.0			
(12) Non-Hispanic white woman-owned DBE	0	\$0	\$0	0.0			
(13) Minority-owned DBE	3	\$1	\$1	0.0			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	2	\$1	\$1	0.0			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-7.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	231	\$1,121,557	\$1,121,557				
(2) Minority and woman-owned businesses	41	\$52,728	\$52,728	4.7	1.7	3.0	200+
(3) Non-Hispanic white woman-owned	22	\$1,553	\$1,553	0.1	1.2	-1.1	11.2
(4) Minority-owned	19	\$51,175	\$51,175	4.6	0.5	4.1	200+
(5) Asian Pacific American-owned	6	\$506	\$506	0.0	0.1	-0.1	36.6
(6) Black American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(7) Hispanic American-owned	9	\$50,066	\$50,066	4.5	0.2	4.2	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	4	\$603	\$603	0.1	0.0	0.0	165.3
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	22	\$4,261	\$4,261	0.4			
(12) Non-Hispanic white woman-owned DBE	15	\$1,434	\$1,434	0.1			
(13) Minority-owned DBE	7	\$2,827	\$2,827	0.3			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	4	\$2,610	\$2,610	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-8.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	123	\$2,387	\$2,387				
(2) Minority and woman-owned businesses	45	\$800	\$800	33.5	28.7	4.8	116.5
(3) Non-Hispanic white woman-owned	24	\$461	\$461	19.3	12.6	6.7	152.7
(4) Minority-owned	21	\$339	\$339	14.2	16.1	-1.9	88.1
(5) Asian Pacific American-owned	10	\$88	\$88	3.7	1.4	2.3	200+
(6) Black American-owned	1	\$1	\$1	0.0	9.7	-9.7	0.3
(7) Hispanic American-owned	9	\$202	\$202	8.5	3.8	4.7	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	1	\$47	\$47	2.0	1.1	0.8	172.7
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	31	\$518	\$518	21.7			
(12) Non-Hispanic white woman-owned DBE	20	\$404	\$404	16.9			
(13) Minority-owned DBE	11	\$114	\$114	4.8			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	3.2			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	5	\$37	\$37	1.6			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-9.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Large prime contracts

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	56	\$1,111,399	\$1,111,399				
(2) Minority and woman-owned businesses	6	\$51,041	\$51,041	4.6	1.5	3.1	200+
(3) Non-Hispanic white woman-owned	2	\$715	\$715	0.1	1.1	-1.0	5.9
(4) Minority-owned	4	\$50,326	\$50,326	4.5	0.4	4.2	200+
(5) Asian Pacific American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(6) Black American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(7) Hispanic American-owned	3	\$49,940	\$49,940	4.5	0.2	4.3	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	1	\$386	\$386	0.0	0.0	0.0	158.6
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	3	\$3,308	\$3,308	0.3			
(12) Non-Hispanic white woman-owned DBE	2	\$715	\$715	0.1			
(13) Minority-owned DBE	1	\$2,593	\$2,593	0.2			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	1	\$2,593	\$2,593	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-10.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

Small prime contracts

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	175	\$10,158	\$10,158				
(2) Minority and woman-owned businesses	35	\$1,687	\$1,687	16.6	29.4	-12.8	56.5
(3) Non-Hispanic white woman-owned	20	\$838	\$838	8.3	16.3	-8.0	50.6
(4) Minority-owned	15	\$849	\$849	8.4	13.1	-4.8	63.7
(5) Asian Pacific American-owned	6	\$506	\$506	5.0	1.6	3.4	200+
(6) Black American-owned	0	\$0	\$0	0.0	5.3	-5.3	0.0
(7) Hispanic American-owned	6	\$126	\$126	1.2	5.1	-3.8	24.4
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	3	\$217	\$217	2.1	1.2	0.9	179.0
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	19	\$953	\$953	9.4			
(12) Non-Hispanic white woman-owned DBE	13	\$719	\$719	7.1			
(13) Minority-owned DBE	6	\$234	\$234	2.3			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	3	\$17	\$17	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	2.1			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-11.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	102	\$1,094,896	\$1,094,896				
(2) Minority and woman-owned businesses	15	\$47,003	\$47,003	4.3	1.2	3.0	200+
(3) Non-Hispanic white woman-owned	6	\$55	\$55	0.0	1.0	-1.0	0.5
(4) Minority-owned	9	\$46,948	\$46,948	4.3	0.2	4.1	200+
(5) Asian Pacific American-owned	3	\$1	\$1	0.0	0.0	0.0	13.8
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.1
(7) Hispanic American-owned	4	\$46,900	\$46,900	4.3	0.1	4.1	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	1	\$47	\$47	0.0	0.0	0.0	111.3
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	4	\$32	\$32	0.0			
(12) Non-Hispanic white woman-owned DBE	1	\$31	\$31	0.0			
(13) Minority-owned DBE	3	\$1	\$1	0.0			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	2	\$1	\$1	0.0			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-12.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	252	\$29,048	\$29,048				
(2) Minority and woman-owned businesses	71	\$6,525	\$6,525	22.5	21.9	0.6	102.7
(3) Non-Hispanic white woman-owned	40	\$1,960	\$1,960	6.7	9.7	-3.0	69.2
(4) Minority-owned	31	\$4,565	\$4,565	15.7	12.1	3.6	129.6
(5) Asian Pacific American-owned	13	\$594	\$594	2.0	4.9	-2.8	42.0
(6) Black American-owned	0	\$0	\$0	0.0	2.5	-2.5	0.0
(7) Hispanic American-owned	14	\$3,368	\$3,368	11.6	3.6	8.0	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	4	\$603	\$603	2.1	1.2	0.9	172.4
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	49	\$4,748	\$4,748	16.3			
(12) Non-Hispanic white woman-owned DBE	34	\$1,807	\$1,807	6.2			
(13) Minority-owned DBE	15	\$2,940	\$2,940	10.1			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	0.3			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	7	\$2,647	\$2,647	9.1			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.7			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-13.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	296	\$1,119,313	\$1,119,313				
(2) Minority and woman-owned businesses	68	\$52,696	\$52,696	4.7	1.7	3.0	200+
(3) Non-Hispanic white woman-owned	40	\$1,768	\$1,768	0.2	1.2	-1.1	12.9
(4) Minority-owned	28	\$50,928	\$50,928	4.5	0.5	4.1	200+
(5) Asian Pacific American-owned	10	\$124	\$124	0.0	0.1	-0.1	9.4
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.1
(7) Hispanic American-owned	13	\$50,215	\$50,215	4.5	0.2	4.3	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	4	\$588	\$588	0.1	0.0	0.0	200+
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	40	\$4,411	\$4,411	0.4			
(12) Non-Hispanic white woman-owned DBE	30	\$1,592	\$1,592	0.1			
(13) Minority-owned DBE	10	\$2,819	\$2,819	0.3			
(14) Asian Pacific American-owned DBE	2	\$30	\$30	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	5	\$2,634	\$2,634	0.2			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	2	\$154	\$154	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-14.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Non-federal

Contract division: DRMT and DOTP

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	58	\$4,631	\$4,631				
(2) Minority and woman-owned businesses	18	\$832	\$832	18.0	19.3	-1.3	93.2
(3) Non-Hispanic white woman-owned	6	\$247	\$247	5.3	8.5	-3.2	62.4
(4) Minority-owned	12	\$586	\$586	12.6	10.7	1.9	117.7
(5) Asian Pacific American-owned	6	\$470	\$470	10.2	2.0	8.2	200+
(6) Black American-owned	0	\$0	\$0	0.0	2.5	-2.5	0.0
(7) Hispanic American-owned	5	\$53	\$53	1.1	4.1	-2.9	28.1
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	1	\$63	\$63	1.4	2.2	-0.9	61.1
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	13	\$369	\$369	8.0			
(12) Non-Hispanic white woman-owned DBE	5	\$246	\$246	5.3			
(13) Minority-owned DBE	8	\$123	\$123	2.6			
(14) Asian Pacific American-owned DBE	3	\$46	\$46	1.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	4	\$14	\$14	0.3			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	1	\$63	\$63	1.4			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-15.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Goals

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	13	\$4,461	\$4,461				
(2) Minority and woman-owned businesses	8	\$2,660	\$2,660	59.6	31.8	27.8	187.3
(3) Non-Hispanic white woman-owned	7	\$66	\$66	1.5	16.4	-15.0	9.0
(4) Minority-owned	1	\$2,593	\$2,593	58.1	15.4	42.7	200+
(5) Asian Pacific American-owned	0	\$0	\$0	0.0	5.4	-5.4	0.0
(6) Black American-owned	0	\$0	\$0	0.0	3.4	-3.4	0.0
(7) Hispanic American-owned	1	\$2,593	\$2,593	58.1	6.0	52.1	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	0	\$0	\$0	0.0	0.6	-0.6	0.0
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	7	\$2,652	\$2,652	59.4			
(12) Non-Hispanic white woman-owned DBE	6	\$58	\$58	1.3			
(13) Minority-owned DBE	1	\$2,593	\$2,593	58.1			
(14) Asian Pacific American-owned DBE	0	\$0	\$0	0.0			
(15) Black American-owned DBE	0	\$0	\$0	0.0			
(16) Hispanic American-owned DBE	1	\$2,593	\$2,593	58.1			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-16.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal and non-federal

Contract division: DRMT and DOTP

No goals

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	341	\$1,119,482	\$1,119,482				
(2) Minority and woman-owned businesses	78	\$50,868	\$50,868	4.5	1.7	2.9	200+
(3) Non-Hispanic white woman-owned	39	\$1,948	\$1,948	0.2	1.2	-1.0	14.5
(4) Minority-owned	39	\$48,920	\$48,920	4.4	0.5	3.9	200+
(5) Asian Pacific American-owned	16	\$595	\$595	0.1	0.1	-0.1	50.5
(6) Black American-owned	1	\$1	\$1	0.0	0.1	-0.1	0.1
(7) Hispanic American-owned	17	\$47,674	\$47,674	4.3	0.2	4.1	200+
(8) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(9) Subcontinent Asian American-owned	5	\$650	\$650	0.1	0.0	0.0	178.2
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	46	\$2,128	\$2,128	0.2			
(12) Non-Hispanic white woman-owned DBE	29	\$1,780	\$1,780	0.2			
(13) Minority-owned DBE	17	\$348	\$348	0.0			
(14) Asian Pacific American-owned DBE	5	\$76	\$76	0.0			
(15) Black American-owned DBE	1	\$1	\$1	0.0			
(16) Hispanic American-owned DBE	8	\$54	\$54	0.0			
(17) Native American-owned DBE	0	\$0	\$0	0.0			
(18) Subcontinent Asian American-owned DBE	3	\$217	\$217	0.0			
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-17.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	296	\$1,119,313	\$1,119,313				
(2) Minority and woman-owned businesses	68	\$52,696	\$52,696		1.7		
(3) Non-Hispanic white woman-owned	40	\$1,768	\$1,768		1.2		
(4) Minority-owned	28	\$50,928	\$50,928		0.5		
(5) Asian Pacific American-owned	10	\$124	\$124		0.1		
(6) Black American-owned	1	\$1	\$1		0.1		
(7) Hispanic American-owned	13	\$50,215	\$50,215		0.2		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	4	\$588	\$588		0.0		
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	40	\$4,411	\$4,411				
(12) Non-Hispanic white woman-owned DBE	30	\$1,592	\$1,592				
(13) Minority-owned DBE	10	\$2,819	\$2,819				
(14) Asian Pacific American-owned DBE	2	\$30	\$30				
(15) Black American-owned DBE	1	\$1	\$1				
(16) Hispanic American-owned DBE	5	\$2,634	\$2,634				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	2	\$154	\$154				
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 4, then 25 percent of column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-18.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	195	\$24,752	\$24,752				
(2) Minority and woman-owned businesses	51	\$5,735	\$5,735		22.3		
(3) Non-Hispanic white woman-owned	35	\$1,744	\$1,744		10.5		
(4) Minority-owned	16	\$3,991	\$3,991		11.7		
(5) Asian Pacific American-owned	4	\$85	\$85		5.3		
(6) Black American-owned	0	\$0	\$0		2.4		
(7) Hispanic American-owned	9	\$3,365	\$3,365		3.0		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	3	\$541	\$541		1.0		
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	37	\$4,410	\$4,410				
(12) Non-Hispanic white woman-owned DBE	30	\$1,592	\$1,592				
(13) Minority-owned DBE	7	\$2,817	\$2,817				
(14) Asian Pacific American-owned DBE	2	\$30	\$30				
(15) Black American-owned DBE	0	\$0	\$0				
(16) Hispanic American-owned DBE	3	\$2,633	\$2,633				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	2	\$154	\$154				
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-19.

Time period: 10/01/2014 - 09/30/2017

Contract area: Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	101	\$1,094,560	\$1,094,560				
(2) Minority and woman-owned businesses	17	\$46,960	\$46,960		1.2		
(3) Non-Hispanic white woman-owned	5	\$24	\$24		1.0		
(4) Minority-owned	12	\$46,937	\$46,937		0.2		
(5) Asian Pacific American-owned	6	\$39	\$39		0.0		
(6) Black American-owned	1	\$1	\$1		0.1		
(7) Hispanic American-owned	4	\$46,850	\$46,850		0.1		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	1	\$47	\$47		0.0		
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	3	\$1	\$1				
(12) Non-Hispanic white woman-owned DBE	0	\$0	\$0				
(13) Minority-owned DBE	3	\$1	\$1				
(14) Asian Pacific American-owned DBE	0	\$0	\$0				
(15) Black American-owned DBE	1	\$1	\$1				
(16) Hispanic American-owned DBE	2	\$1	\$1				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0				
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 4, then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-20.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services and Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs (Caltrans and agencies without their own DBE program)

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	143	\$53,844	\$53,844				
(2) Minority and woman-owned businesses	30	\$828	\$828		20.4		
(3) Non-Hispanic white woman-owned	24	\$704	\$704		16.6		
(4) Minority-owned	6	\$124	\$124		3.9		
(5) Asian Pacific American-owned	1	\$0	\$0		0.2		
(6) Black American-owned	0	\$0	\$0		1.1		
(7) Hispanic American-owned	4	\$74	\$74		2.2		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	1	\$50	\$50		0.3		
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	20	\$663	\$663				
(12) Non-Hispanic white woman-owned DBE	17	\$597	\$597				
(13) Minority-owned DBE	3	\$65	\$65				
(14) Asian Pacific American-owned DBE	1	\$0	\$0				
(15) Black American-owned DBE	0	\$0	\$0				
(16) Hispanic American-owned DBE	1	\$16	\$16				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	1	\$50	\$50				
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-21.

Time period: 10/01/2014 - 09/30/2017

Contract area: Professional services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs (Caltrans and agencies without their own DBE program)

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	100	\$5,585	\$5,585				
(2) Minority and woman-owned businesses	25	\$806	\$806		27.3		
(3) Non-Hispanic white woman-owned	20	\$682	\$682		17.5		
(4) Minority-owned	5	\$124	\$124		9.8		
(5) Asian Pacific American-owned	1	\$0	\$0		1.9		
(6) Black American-owned	0	\$0	\$0		0.9		
(7) Hispanic American-owned	3	\$74	\$74		4.7		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	1	\$50	\$50		2.1		
(10) Unknown minority-owned	0	\$0					
(11) DBE-certified	20	\$663	\$663				
(12) Non-Hispanic white woman-owned DBE	17	\$597	\$597				
(13) Minority-owned DBE	3	\$65	\$65				
(14) Asian Pacific American-owned DBE	1	\$0	\$0				
(15) Black American-owned DBE	0	\$0	\$0				
(16) Hispanic American-owned DBE	1	\$16	\$16				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	1	\$50	\$50				
(19) Unknown minority-owned DBE	0	\$0					

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.

Figure F-22.

Time period: 10/01/2014 - 09/30/2017

Contract area: Goods and services

Contract role: Prime contracts and subcontracts

Funding source: Federal

Contract division: DRMT and DOTP

Analysis of potential DBEs (Caltrans and agencies without their own DBE program)

Business Group	(a) Number of contract elements	(b) Total dollars (thousands)	(c) Estimated total dollars (thousands)*	(d) Utilization percentage	(e) Availability percentage	(f) Utilization - Availability	(g) Disparity index
(1) All businesses	43	\$48,259	\$48,259				
(2) Minority and woman-owned businesses	5	\$22	\$22		19.7		
(3) Non-Hispanic white woman-owned	4	\$21	\$21		16.5		
(4) Minority-owned	1	\$0	\$0		3.2		
(5) Asian Pacific American-owned	0	\$0	\$0		0.0		
(6) Black American-owned	0	\$0	\$0		1.1		
(7) Hispanic American-owned	1	\$0	\$0		2.0		
(8) Native American-owned	0	\$0	\$0		0.0		
(9) Subcontinent Asian American-owned	0	\$0	\$0		0.1		
(10) Unknown minority-owned	0	\$0	\$0				
(11) DBE-certified	0	\$0	\$0				
(12) Non-Hispanic white woman-owned DBE	0	\$0	\$0				
(13) Minority-owned DBE	0	\$0	\$0				
(14) Asian Pacific American-owned DBE	0	\$0	\$0				
(15) Black American-owned DBE	0	\$0	\$0				
(16) Hispanic American-owned DBE	0	\$0	\$0				
(17) Native American-owned DBE	0	\$0	\$0				
(18) Subcontinent Asian American-owned DBE	0	\$0	\$0				
(19) Unknown minority-owned DBE	0	\$0	\$0				

Note: Numbers are rounded to the nearest thousand dollars or tenth of 1 percent. "Woman-owned" refers to non-Hispanic white woman-owned businesses.

*Unknown minority-owned businesses and unknown minority-owned DBEs were allocated to minority and DBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned businesses (column b, row 6) accounted for 25 percent of total minority-owned business dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 6 and the sum would be shown in column c, row 6. In addition, column c was adjusted for the sampling weights for the contract elements that local agencies awarded.

Source: BBC Research & Consulting Disparity Analysis.