



2024 Disparity Study

California Department of Transportation

Final Report

December 2024

2024 California Department of Transportation Disparity Study

Prepared for

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CHAPTER ES.

Executive Summary

BBC Research & Consulting (BBC) conducted a *disparity study* to evaluate whether person of color (POC)- and woman-owned businesses face any disparities in performing work on California Department of Transportation (Caltrans) contracts and procurements, specifically on transportation-related construction and professional services work the agency awards. As part of the study, we examined whether there are any *disparities*, or differences, between:

- The percentage of relevant contract and procurement dollars Caltrans awarded to POC- and woman-owned businesses during the *study period*, which was January 1, 2020 through December 31, 2023 (i.e., *utilization*, or *participation*); and
- The percentage of those dollars one might expect Caltrans to award to POC- and woman-owned businesses based on the degree to which they are *ready, willing, and able* to perform that work (i.e., *availability*).

Caltrans could use information from the disparity study to help refine its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program, including setting an overall goal for the participation of DBEs in its Federal Highway Administration (FHWA)-funded projects and determining which program measures to use to encourage the participation of POC- and woman-owned businesses in that work.

A. Disparity Study Results

BBC analyzed \$19.5 billion of worth of relevant contracts and procurements Caltrans awarded during the study period to measure the participation and availability of POC- and woman-owned businesses for that work and assess whether any disparities exist between those measures. We summarize key results from those analyses below and identify sections of the report that provide more detail about our methodology and study results.

1. Availability analysis (Chapter 6 and Appendix C of the report). BBC conducted a *custom census availability analysis* to estimate the availability of POC- and woman-owned businesses for Caltrans work while accounting for the specific characteristics of relevant businesses that exist in the California marketplace and the degree to which those characteristics match the specific characteristics of the relevant prime contracts and subcontracts Caltrans awards. Figure ES-1 presents the availability of POC- and woman-owned businesses for all relevant Caltrans contracts and procurements considered together. The availability of POC- and woman-owned businesses for that work is 32.8 percent. The business groups that exhibit the greatest availability are Hispanic American-owned businesses (13.9%), White woman-owned businesses (7.6%), and Asian Pacific American-owned businesses (5.7%).

Figure ES-1.
Availability estimates for Caltrans work

Notes:

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 E-1 in Appendix E.

Source:

BBC availability analysis.

Business group	Availability
White woman-owned	7.6 %
Asian Pacific American-owned	5.7 %
Black American-owned	2.5 %
Hispanic American-owned	13.9 %
Native American-owned	0.7 %
<u>Subcontinent Asian American-owned</u>	<u>2.4 %</u>
Total POC-owned	25.2 %
Total POC- and woman-owned	32.8 %

2. Utilization analysis (Chapter 7 of the report). BBC also calculated the participation of POC- and woman-owned businesses in relevant contracts and procurements Caltrans awarded during the study period. As shown in Figure ES-2, during the study period, Caltrans awarded 24.7 percent of its relevant contract and procurement dollars to POC- and woman-owned businesses. The groups that exhibited the greatest levels of participation in that work corresponded with the groups that exhibit the greatest levels of availability for it: Hispanic American-owned businesses (8.9%), White woman-owned businesses (8.6%), and Asian American-owned businesses (4.1%).

Figure ES-2.
Utilization analysis
results for Caltrans work

Notes:

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

For more detail, see Figure E-1 in Appendix E.

Source:

BBC utilization analysis.

Business group	Utilization
White woman-owned	8.6 %
Asian Pacific American-owned	4.1 %
Black American-owned	0.7 %
Hispanic American-owned	8.9 %
Native American-owned	1.6 %
<u>Subcontinent Asian American-owned</u>	<u>0.7 %</u>
Total POC-owned	16.0 %
Total POC- and woman-owned	24.7 %

3. Disparity analysis (Chapter 8 and Appendix E of the report). The crux of the disparity study was to assess whether any disparities, or differences, exist between the participation and availability of POC- and woman-owned businesses for Caltrans work. BBC used the following formula to calculate a *disparity index* to help compare participation to availability:

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

A disparity index of 100 indicates *parity* between actual participation and availability. That is, the participation of a particular business group is in line with its availability. A disparity index of less than 100 indicates a *disparity* between participation and availability. That is, the group is considered to have been *underutilized* relative to its availability. Finally, a disparity index of less than 80 indicates a *substantial disparity* between participation and availability. A *substantial disparity* for a particular group of POC- or woman-owned businesses is interpreted by courts as an *inference of discrimination* against that group and often serves as evidence that the organization of interest could consider using race- or

gender-based measures to address barriers for that group in its contracting and procurement (for details, see Chapter 2).

a. Overall. Figure ES-3 presents disparity indices for POC- and woman-owned businesses for all relevant prime contracts and subcontracts Caltrans awarded during the study period considered together. As shown in Figure ES-3, POC- and woman-owned businesses exhibited a disparity index of 75 for all relevant contracts and procurements Caltrans awarded during the study period, indicating a substantial disparity where Caltrans awarded POC- and woman-owned businesses \$0.75 for every dollar one might expect the agency to award to those businesses based on their availability for that work. Asian Pacific American- (disparity index of 71), Black American- (disparity index of 29), Hispanic American- (disparity index of 64), and Subcontinent Asian American-owned businesses (disparity index of 29) all exhibited substantial disparities for Caltrans work. However, Native American-owned businesses did not exhibit a disparity (disparity index of 200+).

Figure ES-3.
Overall disparity analysis
results for Caltrans work

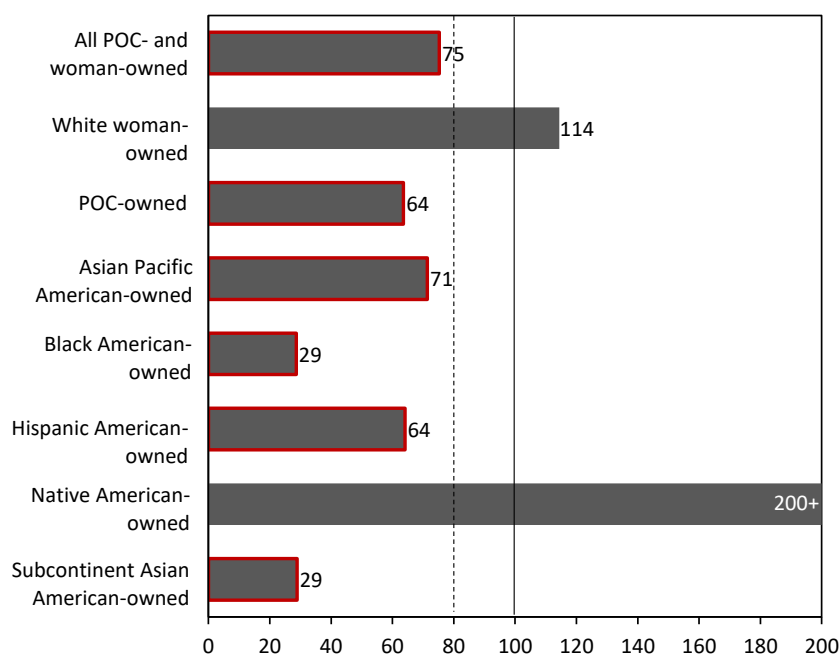
Notes:

For more detail, see Figure E-1 in Appendix E.

Substantial disparities highlighted with red borders.

Source:

BBC disparity analysis.



b. Funding source. The Federal DBE Program applies specifically to Caltrans's United States Department of Transportation (USDOT)-funded projects.¹ As part of the program, the agency uses various race- and gender-neutral measures as well as race- and gender-based DBE contract goals to encourage the participation of POC- and woman-owned businesses in the USDOT-funded projects it awards. However, Caltrans is prohibited from using race- or gender-based measures to award non USDOT-funded projects due to Proposition 209. Disparity indices on projects an agency awards without the use of race- or gender-based measures is the best indication of any barriers POC- and woman-owned businesses face as part of the agency's contracting and procurement, because the participation of POC- and woman-owned businesses on such projects is not potentially inflated as a result of program measures designed specifically to increase their participation.

As shown in Figure ES-4, POC- and woman-owned businesses did not exhibit a substantial disparity for the USDOT-funded projects Caltrans awarded during the study period, many of which the agency

¹ BBC considered a project to be USDOT-funded if it included at least one dollar of USDOT funding.

awarded using race- and gender-based DBE contract goals (disparity index of 87). In contrast, POC- and woman-owned businesses exhibited a substantial disparity for non USDOT-funded work, which Caltrans awarded without the use of any race- or gender-based measures (disparity index of 48). Disparity analysis results differed by business group and funding source:

- Asian Pacific American- (disparity index of 79), Black American- (disparity index of 26), Hispanic American- (disparity index of 77) and Subcontinent Asian American-owned businesses (disparity index of 35) all exhibited substantial disparities for USDOT-funded projects. Neither White woman- (disparity index of 130) nor Native American-owned businesses (disparity index of 200+) exhibited disparities for that work.
- All groups of POC- and woman-owned businesses exhibited substantial disparities for the non USDOT-funded projects Caltrans awarded during the study period with the exception of Native American-owned businesses (disparity index of 141).

Figure ES-4.
Disparity analysis results for
Caltrans work by funding source

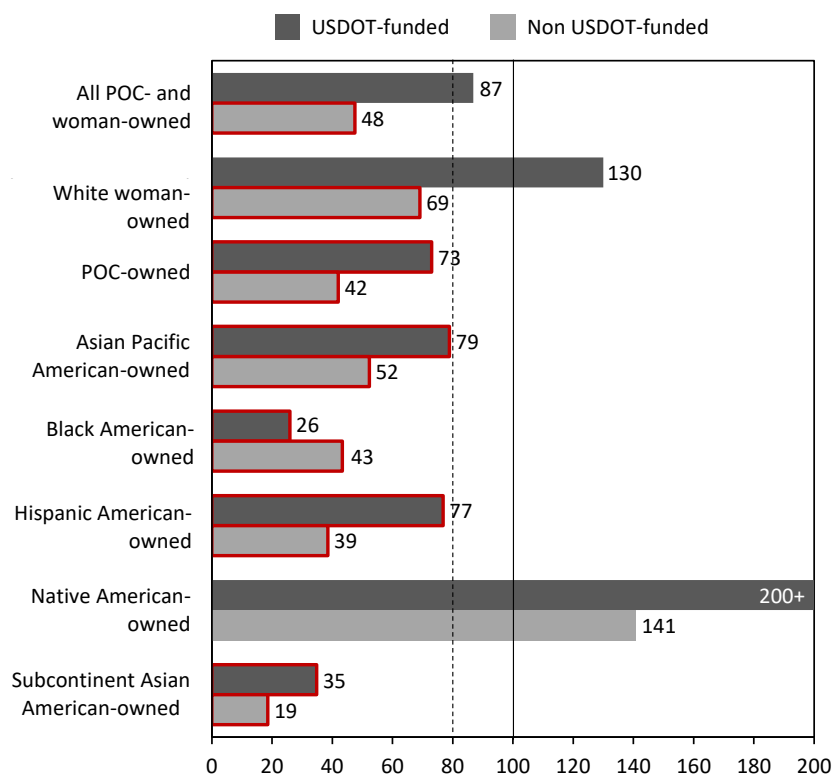
Notes:

For more detail, see Figures E-14 and E-15 in Appendix E.

Substantial disparities highlighted with red borders.

Source:

BBC disparity analysis.



c. Summary. Figure ES-5 presents a visualization of the various sets of Caltrans contracts and procurements for which relevant POC- and woman-owned business groups exhibited substantial disparities, as indicated by black circles. As shown in Figure ES-5, most POC- and woman-owned business groups exhibited substantial disparities for the different contract and procurement sets BBC analyzed as part of the disparity study. However, Native American-owned businesses exhibited a substantial disparity only for professional services projects.

Figure ES-5.
Substantial disparities observed for Caltrans work

Contract set	Business group							
	All POC and white woman	White woman	All POC	Asian Pacific American	Black American	Hispanic American	Native American	Subcontinent Asian
All work	●		●	●	●	●		●
Construction	●		●	●	●	●		●
Professional services	●	●			●		●	●
Prime contracts	●	●	●	●	●	●		●
Subcontracts			●	●		●		●
USDOT			●	●	●	●		●
Non-USDOT	●	●	●	●	●	●		●

Notes: ● indicates substantial disparity (i.e., disparity index of 80 or less)

“All POC and white women” and “All POC” aggregate results for relevant POC- and woman-owned business groups to assess whether those groups in aggregate exhibit substantial disparities.

Source: BBC disparity analysis.

B. Marketplace Conditions (Chapters 3 and 4 and Appendix D of the report)

BBC conducted extensive quantitative analyses to assess whether POCs, women, and POC- and woman-owned businesses face any barriers in the construction and professional services industries in California. The study team also examined the potential effects any of those barriers have on the formation and success of businesses as well as their participation in, and availability for, contracts and procurements Caltrans awards. Our analyses of marketplace conditions in California indicated that POCs and women face various barriers in industries relevant to Caltrans’ transportation-related contracting and procurement. Existing and primary research we conducted indicate that disparities exist in 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 personal and business factors. There is also evidence that many disparities are due—at least, in part—to race- or gender-based discrimination. Barriers in the marketplace likely have important effects on the ability of POCs and women to start businesses in relevant industries—construction and professional services—and to operate those businesses successfully. Any difficulties those individuals face in starting and operating businesses may reduce their availability for Caltrans projects and the degree to which they are able to successfully compete for and perform that work.

C. Overall DBE Goal (Chapter 10 of the report)

In accordance with 49 Code of Federal Regulations (CFR) Part 26 and USDOT requirements, every three years, Caltrans must establish an overall goal for the participation of DBEs in the FHWA-funded projects it awards. USDOT requires agencies to set their overall DBE goals using a two-step process: establishing a *base figure* based on the current availability of DBEs for the USDOT-funded projects an agency awards; and considering whether an *adjustment* to the base figure is warranted to account for various factors potentially related to DBE participation in agency work.

1. Base figure. To help Caltrans establish a base figure for its next overall DBE goal, BBC assessed the availability of potential DBEs—that is, POC- and woman-owned businesses currently DBE-certified or appear they could be DBE-certified according to size limits specified in the Federal DBE Program—for the USDOT-funded projects Caltrans awarded during the study period. That analysis indicated that the

availability of potential DBEs for Caltrans' USDOT-funded work is 27.7 percent, which the agency could consider as the base figure for its next overall DBE goal.

2. Adjustment. After establishing a base figure, Caltrans must consider additional information to determine whether any adjustment to the base figure is warranted to ensure the agency's new overall DBE goal reflects current conditions in the local marketplace for POCs, women, and POC- and woman-owned businesses. USDOT suggests agencies consider the following factors in assessing whether to make adjustments to their base figures:

- Recent participation of DBEs to perform agency work;
- Information related to employment, self-employment, education, training, and unions;
- Disparities in the ability of DBEs to access financing, bonding, or insurance; and
- Other relevant factors.²

BBC assessed information related to each of the above factors, which we summarize below:

- **Recent participation of DBEs to perform agency work.** USDOT's "Tips for Goal-Setting" suggests that agencies should examine data on past DBE participation in their USDOT-funded projects in recent years as part of deciding whether to adjust their base figures. Results from the utilization analysis indicate that Caltrans awarded 15.0 percent of its USDOT-funded project dollars to certified DBEs during the study period, which supports a downward adjustment to the base figure.
- **Information related to employment, self-employment, education, training, and unions.** BBC's analyses of the California marketplace indicate that certain POC groups and women face barriers related to employment, education, training, and business ownership. For example, BBC observed that workers of color and women workers are less likely than White Americans and men, respectively, to own businesses in relevant California industries while statistically controlling for various other personal characteristics, including familial status, education, and age. Such barriers may decrease the availability of POC- and woman-owned businesses for the USDOT-funded projects Caltrans awards, which supports an upward adjustment to the base figure.
- **Any disparities in the ability of DBEs to get financing, bonding, or insurance.** BBC's analyses of access to financing, bonding, and insurance also revealed evidence that POCs, women, and POC- and woman-owned businesses in the region do not have the same access to those business inputs as White men and businesses owned by White men. Any barriers to obtaining financing, bonding, or insurance might limit opportunities for POCs and women to successfully form and operate businesses in the California marketplace and would also place those businesses at a disadvantage in competing for Caltrans' USDOT-funded projects. Thus, those results also support an upward adjustment to the base figure.
- **Other relevant data.** Marketplace analyses also indicate that POC- and woman-owned businesses are less successful than other businesses in the local marketplace in terms of business closures, business receipts, business owner earnings, and other metrics. Barriers in business success among POC- and woman-owned businesses can limit their growth, which may depress their availability for

² 49 CFR Section 26.45.

Caltrans' USDOT-funded work. Thus, those results also support an upward adjustment to the agency's base figure.

Caltrans should consider the above information carefully as part of setting its next overall DBE goal for the FHWA-funded projects it awards. The agency is not required to make an adjustment to its base figure, but it must explain its decision in the goal documentation it submits to FHWA.

D. Guidance (Chapter 11 of the report)

BBC observed substantial disparities between the participation and availability of POC- and woman-owned businesses for the contracts and procurements Caltrans awarded during the study period. We present guidance on how Caltrans can use that information and other information from the disparity study to further encourage the participation of those businesses in its work and address the disparities we observed. In considering the guidance we provide, Caltrans should be mindful of the legal requirements surrounding any new policies or programs it decides to implement, including state and federal regulations as well as relevant case law. In particular, the agency should consult closely with the State of California Department of Justice in developing or using any race- or gender-based program measures to ensure that they are consistent with the requirements of the *strict scrutiny* and *intermediate scrutiny* standards of constitutional review, respectively.

1. DBE contract goals. As part of its implementation of the Federal DBE Program, Caltrans uses race- and gender-based DBE contract goals to encourage the participation of certified DBEs in some, but not all, of its USDOT-funded projects. Because of the substantial disparities that exist between the participation and availability of POC- and woman-owned businesses for Caltrans projects—particularly on projects the agency awarded without the use of race- or gender-based measures—Caltrans should consider continuing to use DBE contract goals to award certain USDOT-funded contracts and procurements. To do so, Caltrans would continue to set percentage goals for the participation of certified DBEs in individual USDOT-funded projects it awards. It would base those goals on the availability of POC- and woman-owned businesses for the types of work involved in each project, and, as a condition of award, bidders would have to make *good faith efforts (GFEs)* to meet those goals in one of three ways: 1) being certified DBEs themselves and counting their own participation toward meeting the goal; 2) making subcontracting commitments to certified DBEs; or 3) demonstrating that they took necessary and reasonable steps to meet the goal, even if they were not fully successful in doing so.

2. Small business set asides. Disparity analysis results indicated substantial disparities for POC- and woman-owned businesses for the prime contracts Caltrans awarded during the study period. The agency could consider implementing a small business set aside program where it would limit competition for certain, small projects exclusively to certified small businesses. Caltrans awards many projects each year through its Minor B Program, which are projects worth less than \$333,333. The agency could consider setting aside some of those projects exclusively for small businesses. Using small business set asides to include different types of contracts and procurements, USDOT-funded projects, and projects the agency awards through formal bid processes could help a greater number of small businesses work directly with Caltrans and build their technical skills and capacities to perform work as prime contractors on larger projects over time.

3. Microbusiness program. United States Small Business Administration (SBA) size thresholds for small business certification allow gross receipts of up to \$47 million for certain industries, which results

in businesses of a wide range of sizes being considered “small.” The State of California Department of General Services (DGS) has a microbusiness program for businesses with gross annual receipts of \$5 million or less. In addition, the San Francisco Bay Area Rapid Transit District (BART) has a Micro Small Business Entity certification for businesses whose average gross receipts over the past three years do not exceed between \$6 million and \$10 million, depending on industry. Caltrans should consider recognizing businesses certified as microbusinesses by DGS, BART, or other California organizations and develop program measures specific to them, potentially including additional evaluation points as part of proposal processes, bid reductions as part of construction projects, and microbusiness set asides.

4. Vendor selection. Results from the utilization analysis indicated that a large percentage of relevant contract and procurement dollars Caltrans awarded during the study period went to a relatively small number of businesses. To expand the number of small businesses—including many POC- and woman-owned businesses—that participate in Caltrans work, the agency could consider using evaluation preferences or benefits to encourage businesses that have never worked with the agency in the past to compete for its contract or procurement opportunities. For example, as part of the bid process, the state could ask prime contractors to submit information about the efforts they made to identify and team with businesses that have never performed work on Caltrans projects in the past. The agency could then award evaluation points or bid reductions based on the degree to which prime contractors partner or attempt to partner with small businesses new to Caltrans work. Caltrans could also consider setting aside certain small projects for exclusive competition among small businesses that have never worked with the agency before. Finally, Caltrans could consider efforts to expand its base of small businesses and POC- and woman-owned businesses through additional outreach, including by using vendor information BBC collected and compiled as part of the disparity study.

5. Access to capital. In general, small businesses—including many POC- and woman-owned businesses—struggle with obtaining loans and other sources of capital, which can make it more difficult for them to perform work on government projects. Caltrans could consider providing guarantees for small business loans, working with lenders to facilitate contract-backed loans for small businesses, and hosting lender fairs so businesses can build relationships with banks that serve California businesses. For example, the City of Los Angeles, the SBA, and the Maryland Department of Transportation (DOT) have programs in place to provide loan guarantees. In addition, the Mississippi Development Authority, the Arkansas Economic Development Commission, and the City of Philadelphia implement contract-backed loan programs. The Maryland DOT also provides term loans, lines of credit, and equity investments itself, which could serve as a model for Caltrans’ consideration. In addition, the agency could explore the feasibility of developing a program to provide mobilization funds to small businesses beginning work on its projects so that doing so does not create undue financial burdens for them or hinder their ability to begin work on other projects.

CHAPTER 1.

Introduction

The California Department of Transportation (Caltrans) is responsible for managing more than 50,000 miles of California's federal and state highways. As a United States Department of Transportation (USDOT) fund recipient, 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. Caltrans retained BBC Research & Consulting (BBC) to conduct a *disparity study* to evaluate the effectiveness of its implementation of the Federal DBE Program in encouraging the participation of person of color (POC)- and woman-owned businesses in its Federal Highway Administration (FHWA)-funded contracts. As part of the disparity study, we examined whether there are any *disparities*, or differences, between:

- The percentage of prime contract and subcontract dollars Caltrans and subrecipient local agencies awarded to POC- and woman-owned businesses during the *study period*, which was January 1, 2020 through December 31, 2023 (i.e., *utilization*); and
- The percentage of prime contract and subcontract dollars POC- and woman-owned businesses might be expected to receive based on their availability to perform specific types and sizes of contracts and procurements Caltrans awards (i.e., *availability*).

The disparity study also examined other quantitative and qualitative information related to:

- The legal framework surrounding Caltrans' contracting and procurement practices, policies, and statutes as well as its implementation of the Federal DBE Program;
- Conditions in the marketplace for POCs, women, and POC- and woman-owned businesses; and
- Contracting practices Caltrans has in place or could consider implementing in the future and its implementation of the Federal DBE Program.

There are several ways in which information from the disparity study can be useful to Caltrans as it refines its implementation of the Federal DBE Program:

- The study identifies barriers POCs, women, and POC- and woman-owned businesses face in the marketplace that might affect their ability to compete for or obtain Caltrans work, which provides information regarding whether a *compelling governmental interest* exists for Caltrans' use of *race-conscious* measures.
- The study provides an evaluation of the effectiveness of Caltrans' implementation of the Federal DBE Program in encouraging POC- and woman-owned business participation in Caltrans contracts and procurements.
- The study provides insights into how Caltrans could refine its contracting processes and its implementation of the Federal DBE Program to better encourage the participation of POC- and woman-owned businesses in its work and help address any barriers.

BBC introduces the 2024 Caltrans Disparity Study in three parts:

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

A. Background

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

1. DBE certification. To fully participate in all the measures Caltrans uses as part of its implementation of the Federal DBE Program, businesses must be certified as DBEs by the California Unified Certification Program (CUCP), which is responsible for certifying DBEs for all USDOT fund recipients in California. CUCP's certifying agencies are Caltrans, the Los Angeles County Metropolitan Transportation Authority, the San Diego County Regional Airport Authority, the San Francisco Bay Area Rapid Transit District, San Francisco International Airport, the San Francisco Municipal Transportation Agency, San Mateo County Transit District, Santa Clara Valley Transportation Authority, the City of Los Angeles, and the City of Fresno. To be eligible for DBE certification, business owners must prove they are part of a "socially and economically disadvantaged" group as defined by 49 Code of Federal Regulations (CFR) Part 26. The groups USDOT presumes to be disadvantaged as part of the Federal DBE Program include Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, Subcontinent Asian Americans, and women of any race. Business owners who identify as members of these groups must establish 51 percent "real and substantial ownership" in their businesses and must possess the power and expertise to control the daily operations and management of their businesses.

2. Overall DBE goal. Every three years, Caltrans is required to set an overall aspirational DBE goal for the participation of DBEs in its USDOT-funded work. If DBE participation is less than its overall DBE goal for a particular funding type in a particular 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. The Federal DBE Program specifies the steps Caltrans must follow to establish its overall DBE goal. To begin the goal-setting process, the agency must develop a base figure for its goal based on demonstrable evidence of the availability of potential DBEs to participate in its USDOT-funded projects. Then, the agency must consider conditions in its *relevant geographic market area (RGMA)* and other factors to determine whether an adjustment to its base figure is necessary to ensure its overall DBE goal accurately reflects current contracting conditions for POC- and woman-owned businesses (referred to as a *step-2 adjustment*). Caltrans is not required to make a step-2 adjustment to its base figure, but it is required to consider relevant factors and explain its decision to USDOT.

3. Program measures. The Federal DBE Program also requires Caltrans to project the portion of its overall DBE goal it will meet through the use of *race- and gender-neutral* measures and the portion it will meet through the use of any *race- and gender-conscious* measures. Race- and gender-neutral measures are designed to encourage the participation of all businesses—or all small businesses—in an agency's work, regardless of the race or gender of business owners. If an agency cannot meet its overall DBE goal solely through the use of race- and gender-neutral measures, then it must consider also using

race- and gender-conscious measures to meet the goal. Race- and gender-conscious measures are designed to encourage the participation of POC- and woman-owned businesses, specifically, in an agency's work (e.g., using condition-of-award DBE goals to award individual contracts or procurements).

If an agency determines that the use of race- and gender-conscious measures—such as DBE contract goals—is appropriate for its implementation of the Federal DBE Program, then it must also determine which business groups are eligible for participation in those measures. Eligibility for such measures is limited to only those race 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 race or gender groups in the race- or gender-conscious measures it uses.

The only race- and gender-conscious measure Caltrans uses is applying DBE contract goals in awarding many of its FHWA-funded contracts. Prime contractors bidding on those contracts must meet the goals by: 1) being DBEs themselves; 2) making subcontracting commitments to certified DBEs; or 3) submitting *good faith efforts* (GFE) documentation demonstrating they made efforts to meet the contract goal but failed to do so. Caltrans reviews GFE documentation and approves it if prime contractors demonstrate genuine efforts towards compliance with DBE goals, even if they were unsuccessful in partnering with DBE subcontractors. If prime contractors do not meet the goals through subcontracting commitments with DBEs or through approved GFEs, then Caltrans rejects prime contractors' bids.

Caltrans does not use any race- or gender-conscious measures when awarding state-funded contracts because of Proposition 209. Proposition 209, which California voters passed in 1996, amended the California constitution to prohibit discrimination and 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 measures if an agency is required to take them “to establish or maintain eligibility for any federal program,” which is why Caltrans continues to use race- and gender-conscious measures in awarding FHWA-funded contracts.

B. Study Scope

BBC conducted the disparity study based on the construction and professional services contracts and procurements Caltrans awarded between January 1, 2020 and December 31, 2023.

1. Definitions of POC- and woman-owned businesses. To interpret the core analyses presented in the disparity study, it is useful to understand how BBC defined POC- and woman-owned businesses, certified DBEs, and potential DBEs in its analyses.

a. POC-owned businesses. BBC defined a POC-owned business as a business with at least 51 percent ownership and control by individuals who identified with one of the following racial/ethnic groups presumed to be disadvantaged as part of the Federal DBE Program in 49 CFR Part 26: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, or Subcontinent Asian Americans. We considered businesses to be POC-owned based on the races of their business owners, regardless of whether they were DBE-certified or held any other types of certification. Our definition of POC-owned

businesses included businesses owned by men of color and women of color. For example, we grouped results for businesses owned by Black American men with results for businesses owned by Black American women to assess outcomes for Black American-owned businesses in general.

b. Woman-owned businesses. Because BBC classified businesses owned by women of color according to their corresponding race groups, analyses and results pertaining to woman-owned businesses pertain specifically to *White woman-owned businesses*. We considered businesses to be woman-owned if they were 51 percent owned and controlled by individuals who identify as women, regardless of whether they were DBE-certified or held any other types of certification.

c. DBEs. BBC defined DBEs as POC- and woman-owned businesses that were specifically certified as such at the time of the study by the CUCP's certifying partners.

d. Potential DBEs. BBC considered businesses to be potential DBEs if they were POC- or woman-owned businesses that were DBE-certified at the time of the study or appeared they could be DBE-certified based on revenue requirements specified in 49 CFR Part 26, regardless of whether they were actually certified. We examined the availability of potential DBEs to help Caltrans calculate the base figure for its next overall DBE goal.

2. Analyses in the disparity study. The crux of the disparity study was to assess whether any disparities exist between the participation and availability of POC- and woman-owned businesses for the contracts and procurements Caltrans awards. Those analyses focused on construction and professional services contracts and subcontracts the agency awarded between January 1, 2020 and December 31, 2023. The study also includes various analyses related to outcomes for POCs, women, and POC- and woman-owned businesses throughout the marketplace. Disparity study analyses are presented in the report as follows:

a. Legal framework and analysis. The study team conducted a detailed analysis of relevant laws, legal decisions, and other information to guide the methodology for the study and inform our recommendations. BBC presents the legal framework and analysis for the study in **Chapter 2** and **Appendix B**.

b. Methodology and data collection. BBC examined contract, procurement, and vendor data from multiple sources to complete the utilization and availability analyses. We present the study team's contract, procurement, and vendor data collection in **Chapter 3**.

c. Marketplace conditions. The study team conducted extensive quantitative analyses of conditions and potential barriers in the marketplace for POCs, women, and POC- and woman-owned businesses. In addition, we collected qualitative evidence about potential barriers POC- and woman-owned businesses face in the marketplace through in-depth interviews, focus groups, engagement sessions, and organizational meetings. BBC presents quantitative information about marketplace conditions in **Chapter 4** and **Appendix D** and qualitative evidence in **Chapter 5**.

d. Availability analysis. BBC analyzed the percentage of contract and procurement dollars one might expect Caltrans to award to POC- and woman-owned businesses based on their availability to perform specific types and sizes of agency work. That analysis was based on agency data and surveys we conducted with more than 1,300 businesses in California that work in industries related to the types of

contracts and procurements Caltrans awards. We present results from the availability analysis in **Chapter 6** and **Appendix C**.

e. Utilization analysis. BBC analyzed contract and procurement dollars the agency awarded to POC- and woman-owned businesses during the study period, including information about associated subcontracts. We present results from the utilization analysis in **Chapter 7**.

f. Disparity analysis. The study team examined whether there were any disparities between the participation and availability of POC- and woman-owned businesses on contracts and procurements Caltrans awarded during the study period. We also assessed whether any observed disparities were statistically significant and explored potential explanations for those disparities. BBC presents results from the disparity analysis in **Chapter 8** and **Appendix E**.

g. Program measures. BBC reviewed measures Caltrans uses to encourage the participation of POC- and woman-owned businesses as well as its implementations of the Federal DBE Program. We present that information in **Chapter 9**.

h. Overall DBE goal. Based on the availability analysis and other research, BBC provided Caltrans with information to help set its next overall DBE goal for its FHWA-funded projects, including establishing a base figure and considering a step-2 adjustment. BBC presents guidance around Caltrans' overall DBE goal in **Chapter 10**.

i. Program considerations. The study team provided guidance related to additional program options and changes to current contracting practices the agency could consider. We present our recommendations in **Chapter 11**.

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.

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

2. GCAP Services (GCAP). GCAP is a small business enterprise (SBE)- and DBE-certified Hispanic American-owned supportive services firm based in Costa Mesa and Sacramento, California. The firm helped review Caltrans' policies and programs to identify any policies that might make it more difficult for small businesses or POC- and woman-owned businesses to compete for and perform agency work. In addition, GCAP conducted in-depth interviews with business owners in the marketplace to collect anecdotal evidence about barriers that potentially exist in the region. The firm also helped BBC develop recommendations related to Caltrans policies and programs.

3. Rosales Law Partners (RLP). RLP is a local business enterprise (LBE)- and DBE-certified Hispanic American woman-owned law firm based in San Francisco, California. RLP reviewed federal and state regulations and case law relevant to Caltrans' implementation of the Federal DBE Program as well as disparity studies. RLP also helped BBC develop recommendations related to programs and policies and ensure our methodology is consistent with all relevant federal and state regulations and case law.

4. Opportunity Management Group (OMG). OMG is an SBE- and DBE-certified Black American woman-owned diversity program compliance firm based in Culver City, California. The firm conducted in-depth interviews with business owners in the marketplace to collect anecdotal evidence about potential barriers in the region. The firm also helped facilitate various community engagement efforts to help ensure external stakeholders were engaged with the disparity study throughout the entire process.

5. Davis Research. Davis Research is a survey fieldwork firm based in Calabasas, California. The firm conducted telephone and online surveys with thousands of California businesses in connection with the availability and utilization analyses.

CHAPTER 2.

Legal Framework

As a recipient of United States Department of Transportation (USDOT) funds, the California Department of Transportation (Caltrans) implements the Federal Disadvantaged Business Enterprise (DBE) Program, which is designed to encourage the participation of person of color (POC)- and woman-owned businesses in an agency's USDOT-funded contracting.¹ Caltrans uses a combination of *race- and gender-neutral* and *race- and gender-conscious* measures as part of its implementation of the program. Race- and gender-neutral measures are designed to encourage the participation of all businesses in an agency's contracting, regardless of the race/ethnicity or gender of business owners. Examples of such measures include networking and outreach efforts, technical assistance programs, and mentor-protégé programs that are not limited to POC- and woman-owned businesses. In contrast, race- and gender-conscious measures are specifically designed to encourage the participation of POC- and woman-owned businesses in an agency's contracting.

The only race- and gender-conscious measure Caltrans uses as part of the Federal DBE Program is using percentage goals for the participation of DBEs in awarding individual USDOT-funded projects (i.e., *DBE contract goals*). In order to be considered responsive to contracting requirements on such projects, a bidder must make *good faith efforts* (*GFEs*) to meet the goal in one of three ways:

- 1.) The bidder can be DBEs themselves and count their own participation toward meeting the goal, assuming it is equal to or exceeds the goal;
- 2.) The bidder can make subcontracting commitments to DBEs that, in aggregate, are equal to or exceed the goal; or
- 3.) The bidder can demonstrate that it took all necessary and reasonable steps to meet or exceed the goal, even if they were not fully successful in doing so.

Because Caltrans uses both race- and gender-neutral and race- and gender-conscious measures as part of its implementation of the Federal DBE Program, it is instructive to review information related to the legal standards governing their use. BBC Research & Consulting (BBC) summarizes legal information in four parts:

- A. Legal standards for different types of measures;
- B. Seminal court decisions;
- C. Relevant state law and regulations; and
- D. Addressing requirements.

Appendix B presents additional details about the above topics.

¹ POC- and woman-owned businesses are businesses owned by individuals that identify with one of the following race or gender groups: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, Subcontinent Asian Americans, or women of any race.

A. Legal Standards for Different Types of Measures

There are different legal standards for determining the constitutionality of POC- and woman-owned business programs, depending on whether they rely only on race- and gender-neutral measures or if they also include race- and gender-conscious measures.

1. Programs that rely only on race- and gender-neutral measures. Government agencies that implement POC- and woman-owned business programs that rely only on race- and gender-neutral measures must show a *rational basis* for their programs. Showing a rational basis requires agencies to demonstrate their contracting programs are rationally related to legitimate government interests (e.g., increasing the participation of local small businesses in their work). It is the least rigorous standard for evaluating the constitutionality of business programs.

2. Programs that include race- and gender-conscious measures. Contracting programs that include race- and gender-conscious measures must meet the *strict scrutiny* and *intermediate scrutiny* standards of constitutional review, respectively.

a. Strict scrutiny. The strict scrutiny standard represents the highest threshold for evaluating the legality of race-conscious contracting programs, short of prohibiting them altogether. Under the strict scrutiny standard, government organizations must show a compelling governmental interest in using race-conscious measures and ensure that their use is *narrowly tailored*. (In June 2023, the United States Supreme Court in *Students for Fair Admissions, Inc. v. President and Fellows of Harvard College* reaffirmed the strict scrutiny test for race-based classifications.²)

i. Compelling governmental interest. Government organizations using race-conscious measures have the initial burden of showing evidence of discrimination within their own *relevant geographic market areas* (RGMA)—including statistical and anecdotal evidence—that supports the use of such measures.³ Although organizations can draw on national statistics relevant to marketplace conditions within their own regions, they cannot rely solely on such information to demonstrate a compelling governmental interest for their programs. They must also present evidence tailored specifically to the marketplaces in which they operate.

It is not necessary for organizations themselves to have discriminated against POC-owned businesses for them to demonstrate a compelling governmental interest and take remedial action. They could act if evidence indicates they are *passive participants* in race-based discrimination that exists in their RGMA.⁴ Passive participation in discrimination refers to government organizations perpetuating discrimination in their contract and procurement processes indirectly (e.g., by requiring stringent insurance requirements in a marketplace where disparate outcomes exist for POC- and woman-owned businesses). One of the primary objectives of the disparity study is to determine if there is evidence of race-based discrimination in the California marketplace—that is, Caltrans' RGMA—that would

² *Students for Fair Admissions v. Harvard*, 600 U.S. 181 (2023).

³ See e.g., *Concrete Works, Inc. v. City and County of Denver* ("Concrete Works I"), 36 F.3d 1513, 1520 (10th Cir. 1994).

⁴ See e.g., *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 492 (1989); *Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1048 (Federal Cir. 2008).

potentially indicate Caltrans' passive participation in that discrimination and help establish a compelling governmental interest for it to use race-conscious measures as part of its contracting and procurement.

ii. Narrow tailoring. In addition to demonstrating a compelling governmental interest, government organizations must demonstrate that their use of race-conscious measures is narrowly tailored to meet program objectives. There are a number of factors courts consider when determining whether the use of race-conscious measures is narrowly tailored:

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

b. Intermediate scrutiny. In 1976, the United States Supreme Court ruled that gender-conscious programs must adhere to the requirements of the intermediate scrutiny standard, which is less rigorous than the strict scrutiny standard but more rigorous than the rational basis standard.⁵

In order for a gender-conscious program to meet intermediate scrutiny, it must:

- Serve an important government objective, and
- Be substantially related to achieving the objective.

B. Seminal Court Decisions

Two Supreme Court cases established the strict scrutiny standard as the appropriate standard for evaluating the constitutionality of contracting and procurement programs that use race-conscious measures:

- *City of Richmond v. J.A. Croson Company (Croson)*;⁶ and
- *Adarand Constructors, Inc. v. Peña (Adarand)*.⁷

Many subsequent decisions in federal courts have refined the requirements for the use of race- and gender-conscious measures as part of disadvantaged business programs, including several cases in the Ninth Circuit, the jurisdiction in which Caltrans operates. BBC briefly summarizes the United States Supreme Court's decisions in *Croson* and *Adarand* as well as the Ninth Circuit Court of Appeals' decisions in three other cases related to POC- and woman-owned business programs:

- *Western States Paving Co. v. Washington State Department of Transportation (Western States)*;⁸ and

⁵ *Craig v. Boren*, 429 U.S. 190 (1976).

⁶ *City of Richmond v. J.A. Croson Company*, 488 U.S. 469 (1989).

⁷ *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995).

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

- *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al. (AGC, San Diego).*⁹

1. Croson and Adarand. The United States Supreme Court's landmark decisions in *Croson* and *Adarand* are the most important court decisions to date in connection with the use of race-conscious measures in government contracting and procurement and disparity study methodology. In *Croson*, the Supreme Court struck down the City of Richmond's race-based subcontracting program as unconstitutional and, in doing so, established various requirements government organizations must meet when considering the use of such measures as part of their contracting and procurement:

- Organizations' use of race-conscious measures must meet the strict scrutiny standard of constitutional review—that is, in remedying any race-based discrimination, they must establish a compelling governmental interest to do so and must ensure the use of such measures is narrowly tailored.
- In assessing availability, organizations must account for various characteristics of the prime contracts and subcontracts they award and the degree to which local businesses are *ready, willing, and able* to perform that work.
- If organizations show statistical disparities between the percentage of dollars they awarded to POC-owned businesses and the percentage of dollars those businesses might be available to perform, then *inferences of discrimination* could exist, justifying the use of narrowly tailored, race-conscious measures.

The Supreme Court's decision in *Adarand* expanded its decision in *Croson* to include federal government programs that potentially include race-conscious measures, requiring that those programs must also adhere to the requirements of strict scrutiny (e.g., the Federal DBE Program).

2. Western States. *Western States* represented the first time the Ninth Circuit Court of Appeals considered the constitutionality of a state department of transportation's implementation of the Federal DBE Program. In *Western States*, the Court struck down the Washington State Department of Transportation's (WSDOT's) implementation of the Federal DBE Program, because it did not satisfy the narrow tailoring requirement of the strict scrutiny standard. Specifically, the Court held that:

- WSDOT did not present compelling evidence of race- or gender-based discrimination in the Washington transportation contracting industry, and agencies must have evidence of such discrimination for their use of race- and gender-conscious measures to be considered narrowly tailored and serving a remedial purpose.
- Even when evidence of discrimination exists within agencies' RGMAs, the use of race- and gender-conscious measures is narrowly tailored only when it is limited to those business groups that have been shown to actually suffer from discrimination in their marketplaces.
- Agencies can rely on statistical disparities between the participation and availability of POC- and woman-owned businesses on contracts they awarded to show discrimination against particular

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

business groups in the marketplace, particularly if that work was awarded using only race- and gender-neutral measures.

- In assessing availability, agencies must account for various characteristics—such as capacity, firm size, and contract size—of projects they award as well as of the businesses located in their RGMAs.
- Sufficient amounts of both statistical and qualitative evidence are necessary to demonstrate the need for race- and gender-conscious measures.

3. AGC, San Diego. *AGC, San Diego* represents the only other time the Ninth Circuit Court of Appeals considered the constitutionality of a state department of transportation’s implementation of the Federal DBE Program after *Western States*. In contrast to its decision in *Western States*, the court upheld Caltrans’ implementation of the Federal DBE Program as constitutional, ruling that it met both the compelling governmental interest and narrow tailoring requirements of the strict scrutiny standard. Caltrans’ implementation of the Federal DBE Program and its defense of its program was based in large part on a 2007 disparity study BBC conducted.

C. Relevant State Law and Regulations

California voters passed Proposition 209 in 1996, which became effective in 1997. Proposition 209 amended Section 31, Article 1 of the California Constitution to prohibit discrimination and the use of race- and gender-based preferences in public contracting, public employment, and public education. Proposition 209 does not prohibit the use of race- or gender-conscious measures if an agency is required to implement them “to establish or maintain eligibility for any federal program, if ineligibility would result in a loss of federal funds to the state.” This clause in Proposition 209 in conjunction with USDOT’s requirement that agencies implement the Federal DBE Program is why Caltrans can legally use race- and gender-conscious measures on federally funded contracts, assuming that Caltrans’ program complies with the strict scrutiny standard.

D. Addressing Requirements

Many government organizations have used information from disparity studies to:

- Determine whether their contract and procurement practices are affected by race-based or gender-based discrimination;
- Design efforts to encourage the participation of POC- and woman-owned businesses in their work; and
- Ensure their use of any race- or gender-conscious measures meets the strict scrutiny and intermediate scrutiny standards, respectively.

Various aspects of the 2024 Caltrans Disparity Study specifically address requirements the United States Supreme Court and other courts have established around POC- and woman-owned business programs and race- and gender-conscious measures:

- The disparity study includes extensive econometric analyses and analyses of anecdotal evidence to assess whether any barriers or discrimination exists for POCs, women, and POC- and woman-owned businesses in the RGMA and whether Caltrans is actively or passively participating in those barriers or that discrimination.

- The study accounts for various characteristics of the prime contracts and subcontracts Caltrans awards, such as work type, role, size, and location—as well as the specific characteristics of businesses working in the RGMA—such as primary lines of work, roles, bid capacities, and interest in government work—resulting in precise estimates of the degree to which POC- and woman-owned businesses are *ready, willing, and able* to perform that work.
- The study includes assessments of whether POC- and woman-owned businesses exhibit substantial statistical disparities between their participation in and availability for Caltrans' projects, indicating whether any inferences of discrimination exist for individual race or gender groups.
- The study includes specific recommendations to help ensure that Caltrans' potential use of any race- or gender-conscious measures as part of the agency's implementation of the Federal DBE Program is narrowly tailored, including recommendations related to:
 - Identifying which race or gender groups exhibit substantial barriers;
 - Maximizing the use of race- and gender-neutral measures to address any barriers;
 - Implementing race- and gender-conscious measures that are flexible, rationally related to marketplace conditions, and not overly burdensome on third parties; and
 - Setting an overall goal for the participation of DBEs in Caltrans work that comply with federal regulations and case law.

CHAPTER 3.

Methodology and Data Collection

Chapter 3 provides an overview of the contracts and procurements BBC Research & Consulting (BBC) analyzed as part of the 2024 California Department of Transportation (Caltrans) Disparity Study and the process we used to collect relevant prime contract, subcontract, and vendor data. Chapter 3 is organized in five parts:

- A. Collection and analysis of contract and procurement data;
- B. Collection of vendor data;
- C. Relevant geographic market area (RGMA);
- D. Subindustry classifications; and
- E. Review process.

A. Collection and Analysis of Contract and Procurement Data

BBC collected data related to the contracts and procurements Caltrans and subrecipient local agencies awarded between January 1, 2020 and December 31, 2023 (the *study period*). The study team worked closely with Caltrans to collect the most comprehensive data available on its Federal Highway Administration (FHWA)- and state-funded transportation-related construction and professional services prime contracts and subcontracts.¹ The study team also worked with local agency staff to collect data on subcontracts subrecipient local agencies awarded using FHWA funds from Caltrans. We sought data on prime contracts and subcontracts regardless of the race/ethnicity and gender of the owners of the businesses that performed the work or their statuses as disadvantaged business enterprises (DBEs). Those data served as the basis for key disparity study analyses, including the utilization, availability, and disparity analyses.

1. Office Engineer (OE) contracts. BBC met with OE to determine what types of data were available about contracts and procurements the office awarded during the study period. OE provided BBC with a list of prime contracts the office awarded during the study period, but OE does not maintain information on associated subcontracts. To collect comprehensive data on OE subcontracts, BBC relied on hard copies of the following forms and documents the Caltrans Office of Civil Rights (OCR) maintains:

- Bid packets from the lowest bidder for awarded contracts;
- CEM-1201, Subcontracting Request;
- CEM-2402, Final Report—Utilization of Disadvantaged Business Enterprises First-tier Subcontractors; and
- CEM-2404, Monthly Disadvantaged Business Enterprises and Underutilized Disadvantaged Business Enterprises Trucking Verification.

¹ BBC considered a contract or procurement to be FHWA-funded if it included at least \$1 of FHWA funding.

OCR and OE advised BBC on how to interpret the forms and associated data. For each contract, BBC included all subcontractor data from CEM-1201 forms, which contain information about subcontractors at the time of award, and augmented them with additional data from CEM-2402 and CEM-2404 forms, which include information about subcontractors at the close of projects.

2. Division of Procurement and Contracting (DPAC) contracts. BBC also met with DPAC to discuss available data on architecture and engineering (A&E) contracts the division awarded during the study period. DPAC provided information on all prime contracts and subcontracts at the time of award from its Contract Administrative Tracking System (CATS). OCR and DPAC reviewed a sample of prime contract and subcontract data the study team compiled to verify its completeness. BBC incorporated Caltrans' feedback into the final contract tables. BBC also collected data on both prime contracts and subcontracts on relevant non-A&E contracts (including minor B construction contracts) from CATS.

3. Alternative delivery method projects. BBC also collected contract data for 39 projects Caltrans awarded using alternative contract delivery methods (e.g., design-build contracts and construction manager/general manager contracts) from the Office of Alternative Delivery. The data included extensive information about associated prime contractors, project descriptions, award dates, and contract award amounts. In some cases, those data overlapped with information OE and DPAC provided, in which case BBC worked with those offices to remove duplicate contracts and consolidate data from all sources. To collect data on subcontracts, the study team relied on hard copies of the following forms OCR and local district offices maintain:

- CEM-1201, Subcontracting Request; and
- CEM-2402, Final Report—Utilization of Disadvantaged Business Enterprises First-tier Subcontractors.

4. Division of Local Assistance (DLA) contracts. BBC met with DLA to discuss the types of data available for the contracts and procurements subrecipient local agencies awarded during the study period. The study team collected data on that work from various sources.

a. State-funded DLA contracts. DLA provided BBC with a list of all state-funded contracts and procurements subrecipient local agencies awarded during the study period. Caltrans district offices maintain subcontract information on those contracts, but DLA headquarters does not collect that information from the districts. BBC requested subcontract information, both at the time of award and at project close, on these projects from Caltrans district offices. BBC's outreach included 327 state-funded contracts and procurements for which BBC attempted to collect subcontract data. BBC worked with OCR to obtain contact information for all Caltrans district offices. The study team then e-mailed data request forms to each district office and sent follow-up requests to nonresponsive offices. The study team worked with Caltrans to send a third data request to nonresponsive district offices representing the largest share of state-funded contract and procurement dollars.

b. FHWA-funded DLA contracts. DLA provided BBC with a list of all FHWA-funded DLA contracts and procurements subrecipient local agencies awarded during the study period. DLA maintains hard copy 17-F Final Report—Utilization of Disadvantaged Business Enterprises and First-tier Subcontractors forms that contain information on the subcontracts at project close associated with many of those contracts and procurements, but those data were either incomplete or missing for some relevant

contracts or procurements.² For agencies with 35 or fewer relevant projects (FHWA-funded and state-funded combined) for which there was missing information, BBC and Caltrans requested subcontract information, both at the time of award and at project close, for all of those projects. For agencies with more than 35 relevant projects for which there was missing information, BBC requested information on all projects worth \$1 million or more and a random sample of relevant projects worth less than \$1 million.

The resulting sample included 1,038 FHWA-funded subrecipient local agency contracts and procurements. BBC worked with Caltrans to obtain contact information for all subrecipient local agencies. The study team then e-mailed forms to each agency requesting subcontract data on relevant contracts and sent follow-up requests to nonresponsive agencies. BBC worked with Caltrans to send a third data request to nonresponsive agencies representing the largest share of FHWA-funded contract and procurement dollars.

5. Division of Transportation Planning (DOTP). DOTP manages the delivery of funds to subrecipient local agencies for various FHWA and Federal Transit Authority (FTA) grant programs. Through these grant programs, DOTP oversees funding to more than 189 subrecipient local agencies—including cities, counties, and regional agencies—for the purpose of improving mass transportation infrastructure and providing transportation services. DOTP previously reported its DBE spend to FTA, however, in 2020, it began reporting its DBE spend to FHWA. DOTP provided BBC with a list of grants awarded to subrecipient local agencies used to award contracts. Each local agency maintains contract and subcontract information on contracts awarded using these grant funds, but DOTP does not collect that information from the subrecipient local agencies. BBC contacted each subrecipient local agency to gather information, both at the time of award and at project close, on the contracts and subcontracts awarded using those grant funds.

The resulting sample included 301 DOTP-funded contracts and procurements for which BBC attempted to collect subcontract data. BBC worked with DOTP to obtain contact information for all subrecipient local agencies. The study team then e-mailed data request forms to each agency and sent follow-up requests to nonresponsive offices. The study team worked with Caltrans to send a third data request to nonresponsive local agencies representing the largest share of DOTP-funded contract and procurement dollars.

6. Contracts included in study analyses. BBC collected information on 2,064 USDOT-funded prime contracts and 28,424 associated subcontracts Caltrans and subrecipient local agencies awarded during the study period, accounting for approximately \$15.3 billion of Caltrans spend. BBC also collected information on 2,099 state-funded prime contracts and 15,423 associated subcontracts Caltrans and subrecipient local agencies awarded during the study period, accounting for approximately \$4.5 billion. Figure 3-1 presents the number of contract elements by relevant contracting area for the prime contracts and subcontracts that the study team included in its analyses.

² Contracts and procurements that required additional information were those that did not have associated 17-F forms or had incomplete 17-F forms, including those that only included information on DBE subcontractors.

Figure 3-1.
Caltrans contracts and procurements
included in the disparity study

Note:

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

Source:

BBC from Caltrans data.

Contract type	Number	Dollars (in thousands)
Construction	42,309	\$16,437,523
Professional services	5,701	\$3,365,917
Total	48,010	\$19,803,440

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

Even after multiple attempts to collect subcontract data from DLA and DOTP, there were a number of contracts for which there were likely associated subcontracts but for which we did not receive subcontract data. To accurately estimate dollars that went to prime contracts and subcontracts, BBC applied weights to the contract elements based on the proportion of dollars that went to prime contracts and subcontracts on similar contracts awarded by those divisions.

B. Collection of Vendor Data

BBC also compiled information on the businesses that participated in relevant prime contracts and subcontracts during the study period, including:

- Business name;
- Physical addresses and phone numbers;
- Ownership status [i.e., whether each business was person of color (POC)- or woman-owned];
- Ethnicity of ownership (if POC-owned);
- DBE certification status;
- Primary lines of work; and
- Business size.

We relied on a variety of sources for that information, including:

- Caltrans contract and vendor data;
- California Department of General Services Directory of Certified Businesses directory;
- California Unified Certification Program database
- California Public Utilities Certification Program database;
- Supplier Clearinghouse lists;

- Small Business Administration certification and ownership lists, including 8(a), HUBZone, and self-certification lists;
- Dun & Bradstreet (D&B) business listings and other business information sources;
- Surveys the study team conducted with business owners and managers; and
- Business websites and other secondary research.

C. Relevant Geographic Market Area (RGMA)

BBC used Caltrans data to help determine the RGMA—the geographical area in which agencies spend the substantial majority of their contract and procurement dollars—for the disparity study. Caltrans awarded approximately 98.0 percent of relevant contract and procurement dollars to businesses located in California. That result indicated that the RGMA for the study should comprise California. Our analyses—including the availability analysis and quantitative analyses of marketplace conditions—focused on the entire state.

D. Subindustry Classifications

For each prime contract and subcontract included in our analyses, BBC determined the *subindustry* that best characterized the vendor’s primary line of work (e.g., building construction). We determined subindustries based on Caltrans contract and vendor data; surveys the study team conducted with prime contractors and subcontractors; business certification lists; D&B business listings; and other sources. Figure 3-2 presents subindustry classifications for the construction and professional services contracts and procurements BBC included in our analyses as well as the dollars Caltrans awarded related to each subindustry during the study period.

BBC combined related subindustries that accounted for relatively small percentages of total contract and procurement dollars into five “other” subindustries: “other construction services,” “other construction materials,” and “other professional services.” For example, the dollars that district agencies awarded to contractors for “welding repair” represented less than 1 percent of the total dollars we examined as part of the study. So, we combined “welding repair” with construction services that also accounted for relatively small percentages of total dollars into the “other construction services” subindustry.

There were also various contracts and procurements we classified into subindustries that we did not include in our analyses:

- Purchases and grants Caltrans made with or awarded to government agencies, utility providers, hospitals, or nonprofit organizations (\$29.9 million);
- Contracts and procurements that reflected “national markets”—that is, subindustries dominated by large national or international businesses—or subindustries where Caltrans awarded most of the dollars to businesses located outside the RGMA (\$2.3 million);³

³ Examples of such work include computer manufacturing and proprietary software.

- Purchases that often include property purchases, leases, or other pass-through dollars (\$4.9 million);⁴ or
- Types of work not typically included in disparity studies and that account for relatively small percentages of Caltrans' contract and procurement dollars (\$105.7 million).⁵

E. Review Process

Caltrans reviewed contract and vendor data throughout the study process. BBC consulted with Caltrans to discuss the data collection process, review information the study team gathered, and present summary results. We incorporated feedback from Caltrans in the final contract and vendor data used for our analyses.

Figure 3-2.
Caltrans contract and procurement dollars by subindustry

Note:

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

Source:

BBC from Caltrans data.

Subindustry	Dollars
Construction	
Highway, street, and bridge construction	\$9,913,117
Excavation, drilling, wrecking, and demolition	\$1,263,374
Electrical work	\$1,056,418
Concrete work	\$999,095
Fencing, guardrails, barriers, and signs	\$666,990
Painting, striping, and marking	\$477,699
Water, sewer, and utility lines	\$372,044
Traffic control and safety	\$325,990
Landscaping services	\$318,491
Concrete, asphalt, sand, and gravel products	\$308,730
Building construction	\$238,965
Rebar and reinforcing steel	\$173,327
Other construction services	\$155,668
Other construction materials	\$86,937
Trucking, hauling, and storage	\$80,679
Total construction	\$16,437,523
Professional Services	
Engineering	\$2,113,346
Construction management	\$485,041
Environmental services	\$356,050
Transportation planning services	\$157,869
Testing and inspection	\$85,986
Architectural and design services	\$76,225
Surveying and mapmaking	\$71,812
Other professional services	\$19,588
Total professional services	\$3,365,917
GRAND TOTAL	\$19,803,440

⁴ An example of such work is real estate consulting.

⁵ Examples of industries not typically included in disparity studies include educational services.

CHAPTER 4.

Econometric Analysis of Marketplace Conditions

Historically, there have been myriad legal, economic, and social obstacles that have impeded people of color (POCs) 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 POCs and women, the effects of which are still apparent today. Those barriers limited opportunities for POCs 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

POCs and women in California have faced barriers similar to the ones nationwide. Black Americans were forced to live in racially segregated neighborhoods, send their children to segregated schools, and use separate facilities at area restaurants and cultural institutions.^{6, 7, 8} In addition, racially motivated violence and displacement were common features of Native American life in the state.⁹ Disparate treatment also extended into the labor market. Black Americans and Hispanic Americans were concentrated in low-wage work with few opportunities for advancement and were commonly subjected to discriminatory treatment on the job.^{10, 11}

In the middle of the 20th century, many reforms opened up new opportunities for POCs and women nationwide. For example, *Brown v. Board of Education*, *The Equal Pay Act*, *The Civil Rights Act*, and *The Women's Educational Equity Act* outlawed many forms of discrimination. Workplaces adopted personnel policies and implemented programs to diversify their staffs.¹² Those reforms increased diversity in workplaces and reduced educational and employment disparities for POCs and women.^{13, 14, 15, 16} However, despite those improvements, POCs and women continue to face barriers—such as incarceration, residential segregation, and family responsibilities—that have made it more difficult to acquire the human and financial capital necessary to start and operate businesses successfully.^{17, 18, 19, 20}

Federal Courts have considered barriers POCs, women, and POC- and woman-owned businesses face in a local marketplace as evidence for the existence of race- and gender-based discrimination in that marketplace.^{21, 22, 23} The United States Supreme Court and other federal courts have held that analyses of conditions in a local marketplace for POCs, women, and POC- and woman-owned businesses are instructive in determining whether agencies' implementations of POC- 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 POC- and woman-owned businesses to successfully compete for government contracts. Passive participation in discrimination means 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.^{24, 25, 26}

BBC Research & Consulting (BBC) conducted quantitative and qualitative analyses to assess whether POCs, women, and POC- and woman-owned businesses face any barriers in the California transportation-related construction and professional services industries. We also examined the

potential effects any such barriers have on the formation and success of businesses as well as their participation in and availability for contracts and procurements the California Department of Transportation (Caltrans) and subrecipient agencies award. We examined local marketplace conditions in four primary areas:

- **Human capital**, to assess whether POCs and women face barriers related to education, employment, and gaining experience;
- **Financial capital**, to assess whether POCs and women face barriers related to wages, homeownership, personal wealth, and financing;
- **Business ownership**, to assess whether POCs and women own businesses at rates comparable to that of White men; and
- **Business success**, to assess whether POC- and woman-owned businesses have outcomes similar to those of businesses owned by White men.

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. Factors such as education, business experience, and managerial experience have been shown to be related to business success.^{27, 28, 29, 30} Any barriers in those areas may make it more difficult for POCs and women to work in relevant industries and prevent some of them from starting and operating businesses successfully.

1. 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 in professional services—require at least a four-year college degree. In addition, education is a strong predictor of both income and personal wealth, which are both shown to be related to business formation and success.^{31, 32, 33} Nationally, POCs lag behind White Americans in terms of both educational attainment and the quality of education they receive.^{34, 35, 36} POCs are more likely than White Americans to attend schools that do not provide access to core classes in science and math.³⁷ In addition, Black American students are more likely than White Americans to be expelled or suspended from high school.³⁸ For those and other reasons, POCs are far less likely than White Americans to attend college, enroll at moderately or highly selective four-year college institutions, and earn college degrees.³⁹

Educational outcomes for POCs in California are similar to those for POCs nationwide. BBC's analyses of the California labor force indicate that people who identify with certain POC groups are less likely than White Americans to earn college degrees. Figure 4-1 presents the percentage of workers in California who have earned four-year college degrees. As shown in Figure 4-1, Black American (37%), Hispanic American (18%), and Native American (35%) workers are less likely than White American workers (53%) to have four-year college degrees. We also conducted regression analyses to assess whether race- or gender-related barriers in obtaining college degrees exist even after accounting for various personal factors, such as age and family status. Those analyses indicated that, even after accounting for such factors, Black Americans, Hispanic Americans, and Native Americans are less likely to obtain college degrees compared to White Americans (see Appendix D, Figure D-2 for more details).

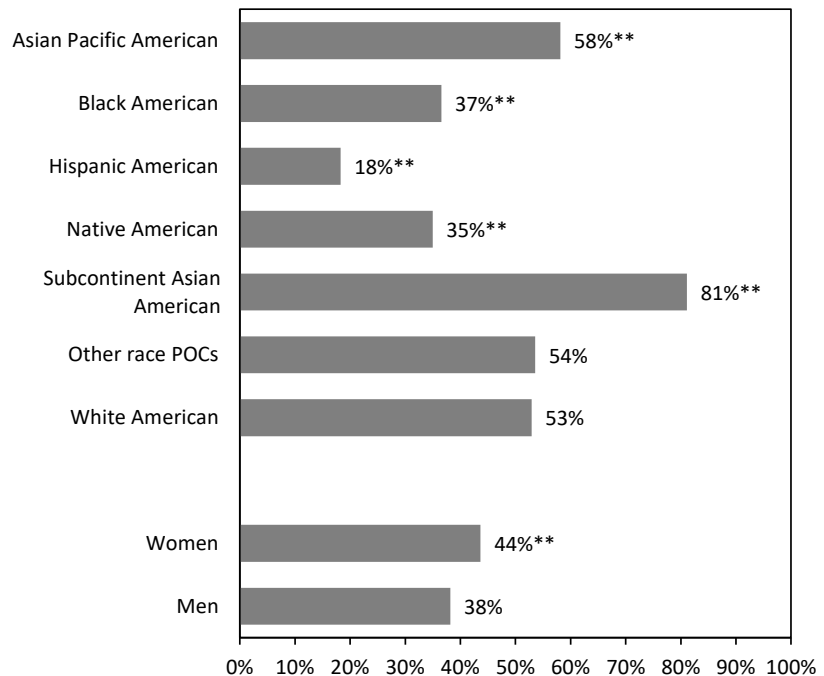
Figure 4-1.
Percentage of all workers aged
25 and older with at least a four-
year degree, California, 2018-
2022

Note:

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.



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

a. Employment. On a national level, prior industry experience has been shown to be an important indicator for business ownership and success. However, POCs and women are often unable to acquire that experience. They are sometimes discriminated against in hiring decisions, which impedes their entry into the labor market.^{40, 41, 42} When employed, they are often relegated to peripheral positions in the labor market and to industries that already exhibit high concentrations of POCs and women.^{43, 44, 45, 46, 47, 48} In addition, Black Americans, Hispanic Americans, and Native Americans are incarcerated at greater rates than White Americans in California and nationwide, which contributes to many labor difficulties, including difficulties finding jobs and slow wage growth.^{49, 50, 51, 52, 53, 54, 55} BBC assessed the representation of POC and woman workers in the California construction and professional services industries compared to their representation in all California industries considered together. We present the results of that analysis in Figure 4-2. Compared to their representation in all industries considered together:

- Smaller percentages of Asian Pacific Americans (5.2%), Black Americans (2.6%), Subcontinent Asian Americans (0.4%), and other race POCs (0.7%) work in the construction industry. A smaller percentage of women (9.7%) also work in the construction industry.
- Smaller percentages of Black Americans (3.0%) and Hispanic Americans (18.7%) work in the professional services industry. In addition, a smaller percentage of women (29.1%) work in the professional services industry.

Figure 4-2.
Demographic characteristics of workers in study-related industries and
all industries, California, 2018-2022

Group	All Industries (n=916,686)	Construction (n=54,188)	Professional Services (n=10,416)
Race/ethnicity			
Asian Pacific American	14.8 %	5.2 % **	19.5 % **
Black American	6.2 %	2.6 % **	3.0 % **
Hispanic American	38.6 %	55.9 % **	18.7 % **
Native American	0.9 %	0.9 %	0.9 %
Subcontinent Asian American	2.7 %	0.4 % **	3.9 % **
Other race POCs	0.8 %	0.7 % **	0.8 %
Total POC	63.9 %	65.8 %	46.9 %
White American	36.1 %	34.2 % **	53.1 % **
Total	100.0 %	100.0 %	100.0 %
Gender			
Women	45.5 %	9.7 % **	29.1 % **
Men	54.5 %	90.3 % **	70.9 % **
Total	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 from 2018-2022 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/>.

BBC also examined the relationships between race and gender and unemployment. Figure 4-3 presents unemployment rates among POCs and women compared to those of White Americans and men, respectively. Compared to White American workers (6%), Black American (10%), Hispanic American (7%), Native American (8%), and other race POC (7%) workers are more likely to be unemployed in California. In addition, women are more likely to be unemployed (7%) compared to men (6%). We also conducted regression analyses to assess whether there are relationships between race and gender and unemployment even after accounting for various personal factors such as age, education, and family status. Those analyses indicated that, even after accounting for such factors, Black Americans, Native Americans, and other race POCs are more likely to be unemployed compared to White Americans. In addition, women are more likely to be unemployed compared to men (see Appendix D, Figure D-5 for more details).

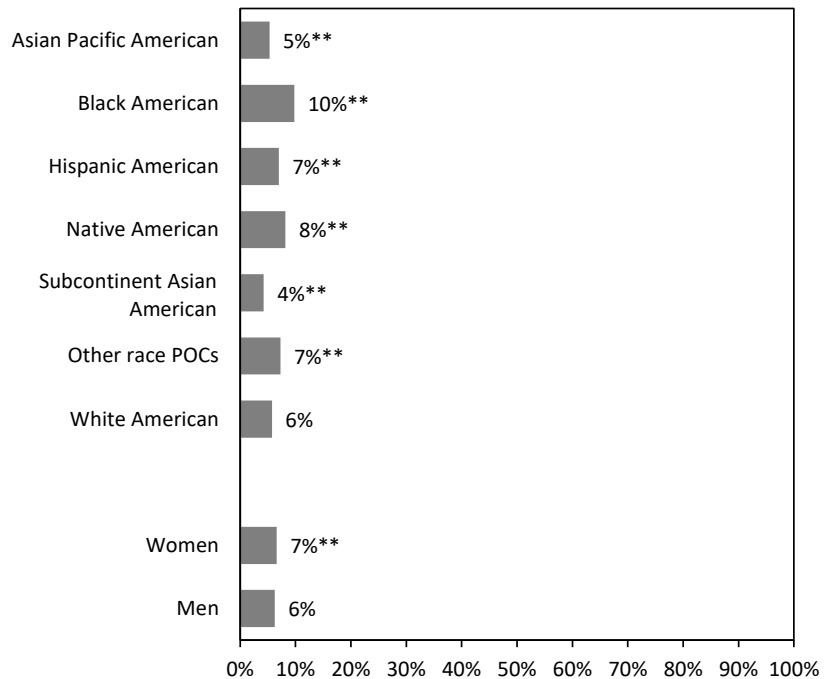
Figure 4-3.
Unemployment rates,
California, 2018-2022

Note:

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.



b. Management experience. Managerial experience is an important predictor of business ownership and success, but discrimination remains an obstacle to greater diversity in management positions.^{56, 57, 58, 59} Nationally, POCs and women are far less likely than White men to work in management positions.^{60, 61, 62} Similar outcomes exist for POCs and women in California. BBC examined the representation of POCs and women in management positions in the California construction and professional services industries. As shown in Figure 4-4:

- Smaller percentages of Asian Pacific Americans (12.3%), Black Americans (7.2%), Hispanic Americans (3.6%), and other race POCs (11.2%) than White Americans (15.8%) work as managers or supervisors in the California construction industry.
- Smaller percentages of Asian Pacific Americans (2.1%), Black Americans (2.0%), and Hispanic Americans (1.4%) than White Americans (4.1%) work as managers or supervisors in the California professional services industry. A smaller percentage of women (1.9%) than men (3.7%) work as managers or supervisors in the California professional services industry.

B. Financial Capital

In addition to human capital, financial capital has been shown to be an important indicator of business formation and success.^{63, 64, 65} Individuals can acquire capital through many sources, including wages, personal wealth, homeownership, and loans. If barriers exist in financial markets, POCs and women may have difficulty acquiring the capital necessary to start, operate, or expand businesses.

Figure 4-4.
Percentage of non-owner
workers who worked as a
manager or supervisor in each
study-related industry,
California, 2018-2022

Note:

*, ** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 90% and 95% confidence levels, respectively.

Source:

BBC from 2018-2022 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/>.

Group	Construction	Professional Services
Race/ethnicity		
Asian Pacific American	12.3 % **	2.1 % **
Black American	7.2 % **	2.0 % *
Hispanic American	3.6 % **	1.4 % **
Native American	14.6 %	5.6 %
Subcontinent Asian American	20.4 %	4.7 %
Other race POCs	11.2 % *	2.7 %
White American	15.8 %	4.1 %
Gender		
Women	9.7 % **	1.9 % **
Men	8.0 %	3.7 %
All individuals	8.2 %	3.1 %

1. Wages and income. Wage and income gaps between POCs and White Americans and between women and men exist nationwide, even when researchers have accounted for various other factors.^{66, 67, 68, 69} For example, nationally, on average, Black Americans and Hispanic Americans have household incomes less than two-thirds and three-fourths, respectively, than those of White Americans.⁷⁰ Women have also faced wage and income gaps relative to men. Nationally, the median hourly wage of women is only 84 percent that of men, even after accounting for various personal factors.⁷¹ Such disparities make it difficult for POCs and women to use wages as a source of business capital.

BBC observed wage disparities in California consistent with those observed nationally. Figure 4-5 presents mean annual wages for California workers by race and gender. Asian Pacific American (\$93,135), Black American (\$70,806), Hispanic American (\$53,728), Native American (\$75,984), and other race POC workers (\$97,361) earn less than White American workers (\$105,826). In addition, women (\$69,919) earn less than men (\$93,675). We also conducted regression analyses to assess whether wage gaps for POCs and women exist even after accounting for various personal factors such as age and family status. Those analyses indicated that, even after accounting for such factors, Asian Pacific Americans Black American, Hispanic American, Native American, and other race POC workers earn less than White American workers, and women workers earn less than workers who are men (see Appendix D, Figure D-10 for more details).

2. Personal wealth. Another source of business capital is personal wealth, and there are substantial disparities between POCs and White Americans and between women and men in personal wealth, even after accounting for various other factors.^{72, 73, 74, 75} For example, in 2019, Black Americans and Hispanic Americans nationwide exhibited average household net worth that was 14 percent and 17 percent, respectively, that of White Americans.⁷⁶ In addition, approximately 22 percent of Black Americans and 18 percent of Hispanic Americans in the United States are living in poverty compared to less than 10 percent of White Americans. In California, 18.7 percent of Black Americans and 14.8 percent of Hispanic Americans are living in poverty compared to 9.1 percent of White Americans.⁷⁷ In addition, the median wealth of non-married women nationally is approximately one-third that of non-married men.⁷⁸

Figure 4-5.
Mean annual wages,
California, 2018-2022

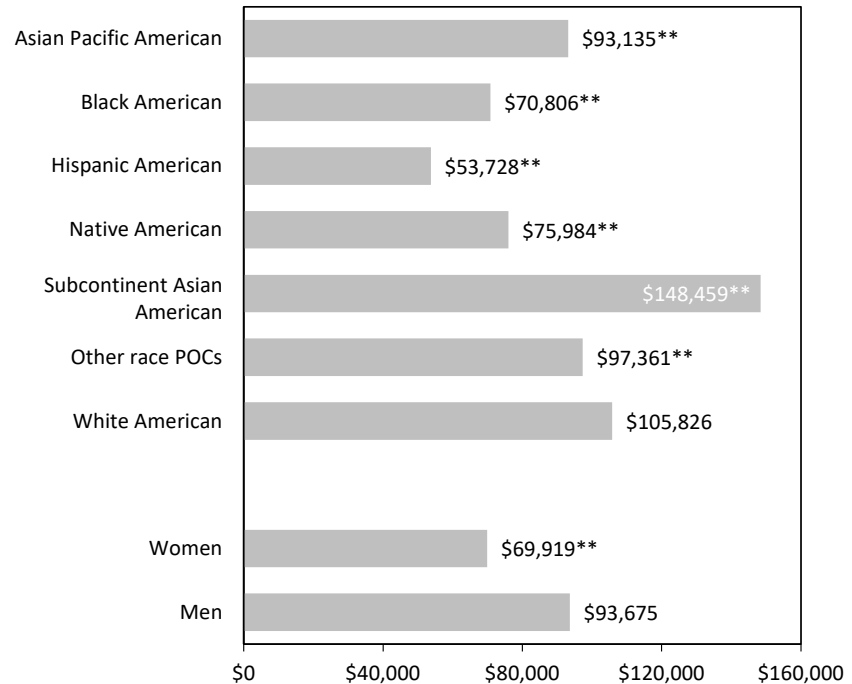
Notes:

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

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.



3. Homeownership. Home equity has also been shown to be a key source of business capital, but POCs appear to face substantial barriers nationwide in owning homes, and those disparities appear to be at least partly due to discrimination.^{79, 80, 81} Research indicates that POCs continue to be given less information on prospective homes and have their purchase offers rejected because of their races.^{82, 83} In addition, POC homeowners tend to own homes worth less than those of White Americans and tend to accrue less equity.^{84, 85, 86} Differences in home values and equity can be attributed—at least, in part—to the depressed property values that tend to exist in racially segregated neighborhoods.^{87, 88, 89} POCs appear to face homeownership barriers in California similar to those observed nationally. As shown in Figure 4-6, Asian Pacific Americans (60%), Black Americans (36%), Hispanic Americans (45%), Native Americans (55%), Subcontinent Asian Americans (58%), and other race POCs (56%) own homes at rates that are less than that of White Americans (64%).

Figure 4-6.
Homeownership rates,
California, 2018-2022

Notes:

The sample universe is all households.

** Denotes that the difference in proportions between the POC group and White Americans is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

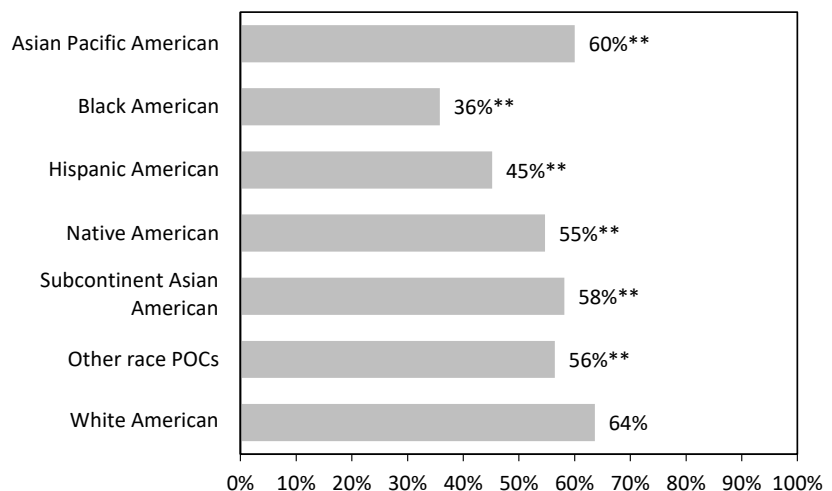


Figure 4-7 presents median home values among POC homeowners in California. Those data indicate that Black American (\$500,000), Hispanic American (\$450,000), and Native American (\$500,000) own homes that, on average, are worth less than those of White Americans (\$635,000).

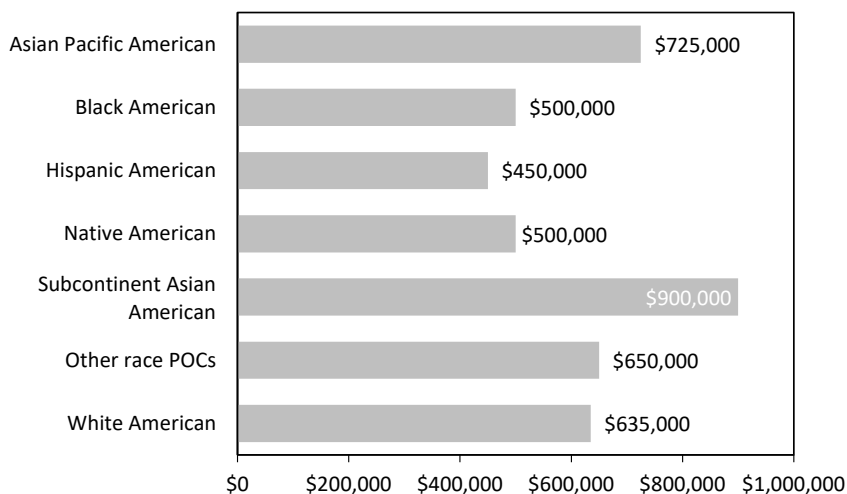
Figure 4-7.
Median home values,
California, 2018-2022

Note:

The sample universe is all owner-occupied housing units.

Source:

BBC from 2018-2022 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/>.



4. Access to financing. POCs and women face many barriers in trying to access credit and financing, both for home and business capital. Researchers have often attributed those barriers to various forms of race- and gender-based discrimination that exist in credit markets.^{90, 91, 92, 93, 94, 95} BBC assessed difficulties POCs and women face in home and business credit markets.

a. Home credit. POCs and women continue to face barriers when trying to access credit to purchase homes. Examples of such barriers include discriminatory treatment of POCs and women during pre-application processes and less favorable loan terms when POC and woman borrowers are approved for home loans.^{96, 97} Disparities in home loan denial rates and in mortgage costs may prevent POCs and women from accessing the wealth-building potential of homeownership.^{98, 99, 100, 101, 102} To examine how POCs fare in the home credit market relative to White Americans in California, we analyzed home loan denial rates for high-income households by race. As shown in Figure 4-8, Asian Americans, Black Americans, Hispanic Americans, Native Americans, and Native Hawaiian or Pacific Islander Americans in California are denied home loans at greater rates than White Americans (6%).

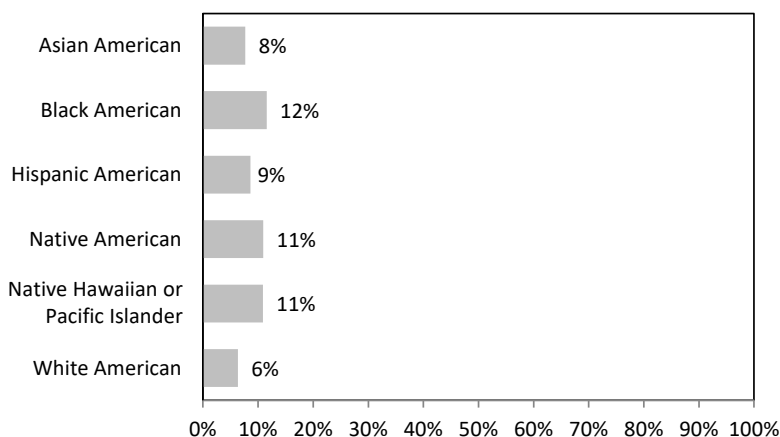
Figure 4-8.
Denial rates of conventional
purchase loans for high-income
households, California, 2022

Note:

High-income borrowers are those households with 120% or more of the HUD/FFIEC area median family income (MFI). The MFI data are calculated by the FFIEC.

Source:

FFIEC HMDA data 2022. The raw data extract was obtained from the Federal Financial Institutions Examination Council's HMDA data tool: <https://ffiec.cfbp.gov/data-browser/>.

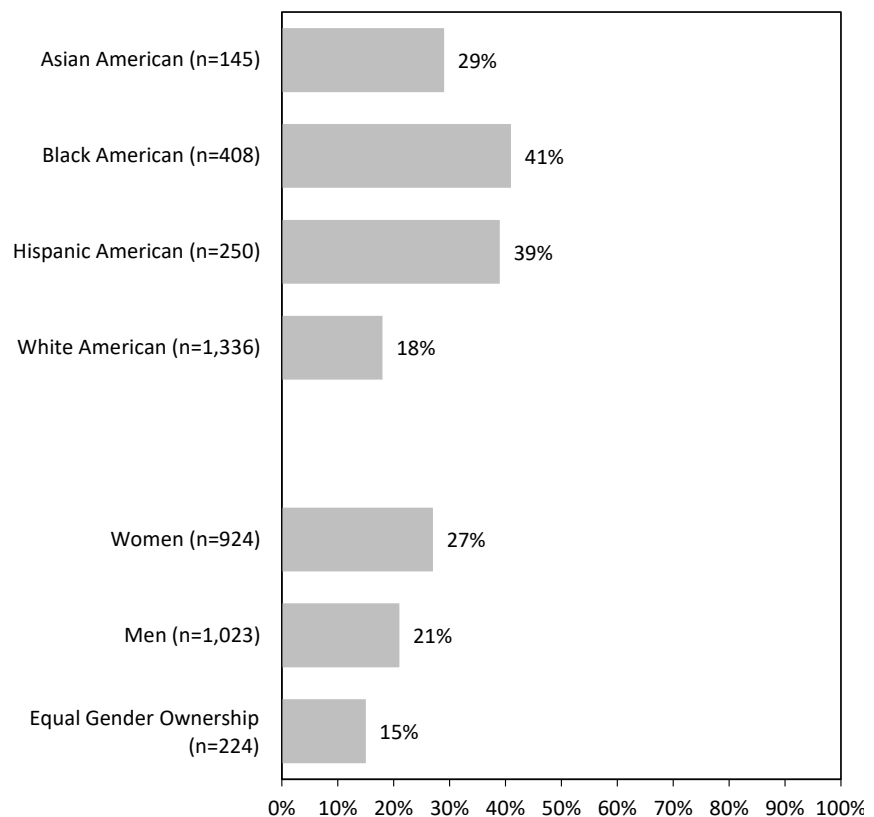


b. Business credit. POC- and woman-owned businesses also face difficulties accessing business credit. For example, during pre-application meetings, POC-owned businesses are given less information about loans, are subjected to more information requests, and are offered less support than businesses owned by White Americans.¹⁰³ In addition, POC- and woman-owned businesses are more likely to forego submitting business loan applications because of fears of denial.^{104, 105, 106} They are also more likely to be denied business credit when they do seek loans and are less likely to receive all the financing they sought if their loans are approved.^{107, 108, 109, 110, 111, 112} Finally, POC and woman business owners face worse loan outcomes even after accounting for creditworthiness.^{113, 114, 115} Without equal access to capital, POC- and woman-owned businesses must operate with less capital than businesses owned by White Americans and men, respectively, and must rely more on personal finances.^{116, 117, 118, 119}

BBC analyzed denial rates for loans, lines of credit, and cash advances for POCs and women relative to White Americans and men, respectively, at a national level. As shown in Figure 4-9, Asian American-, Black American-, and Hispanic American-owned businesses are denied loans at greater rates than businesses owned by White Americans. In addition, woman-owned businesses are denied loans at greater rates than businesses owned by men.

Figure 4-9.
Loan, line of credit, and cash
advance denial rates, United
States, 2023

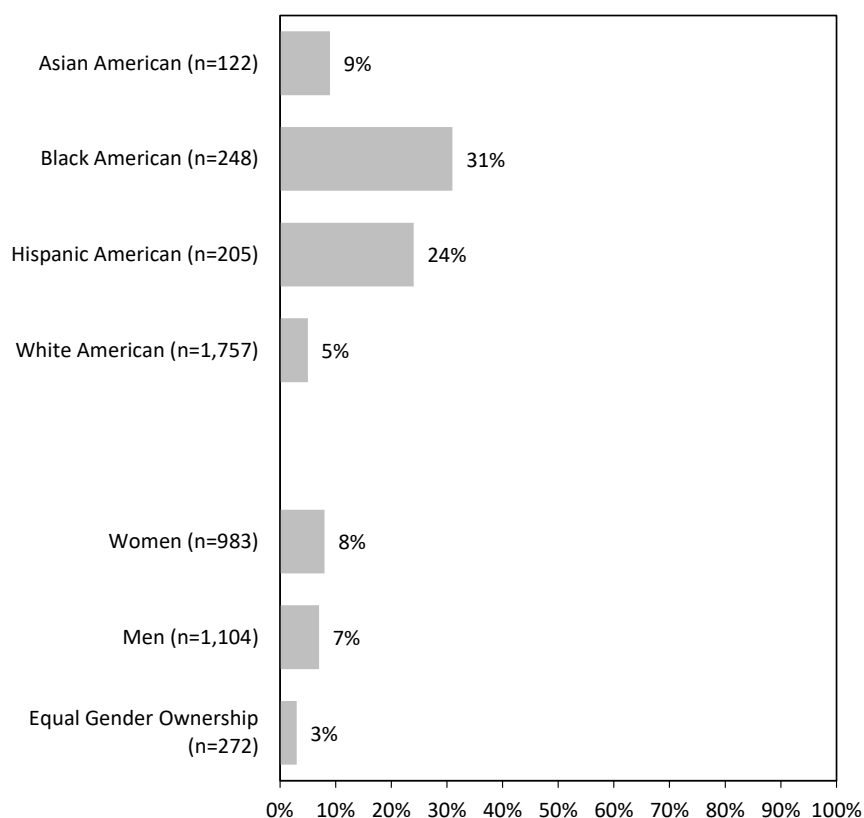
Source:
BBC from 2023 Small Business Credit Survey.



We also analyzed the degree to which POC- and woman-owned businesses do not apply for loans due to a fear of denial. Figure 4-10 presents the rates at which those businesses forego loan applications due to fears of denial relative to businesses owned by White Americans and men. Nationally, POC-owned businesses are more likely than businesses owned by White Americans and woman-owned businesses are more likely than businesses owned by men to not apply for loans due to a fear of denial.

Figure 4-10.
Businesses that did not apply
for loans due to fear of denial,
United States, 2023

Source:
 BBC from 2023 Small Business Credit Survey.



C. Business Ownership

Nationally, there has been substantial growth in the number of POC- and woman-owned businesses recently. For example, from 2017 to 2020, the number of woman-owned businesses with employees increased by 9 percent, Black American-owned businesses increased by 14 percent, and Hispanic American-owned businesses increased by 17 percent.^{120, 121} However, important barriers in starting and operating businesses remain. Black Americans, Hispanic Americans, and women are still less likely to start businesses than White American men.^{122, 123, 124, 125, 126} In addition, POCs and women have not been able to penetrate all industries equally. They disproportionately own businesses in industries that require less human and financial capital to be successful and that already include large concentrations of POCs and women.^{127, 128, 129} BBC examined rates of self-employment (i.e., business ownership) in California for each relevant industry by race and gender. As shown in Figure 4-11:

- Black Americans (16.8%), Hispanic Americans (17.7%), Native Americans (23.4%), and Subcontinent Asian Americans (18.7%) own construction businesses at rates less than that of White Americans (27.6%), and women (14.7%) own construction businesses at a rate less than that of men (22.4%).
- Asian Pacific Americans (9.6%), Black Americans (5.0%), Hispanic Americans (10.5%), Native Americans (10.8%), and Subcontinent Asian Americans (6.6%) own professional services businesses at rates less than that of White Americans (18.3%), and women (12.0%) own such businesses at a rate less than that of men (15.1%). BBC also conducted regression analyses to determine whether differences in business ownership rates in California exist based on race and

gender even after statistically controlling for various personal factors such as income, education, and familial status. Even after accounting for various personal factors:

- Black Americans and Hispanic Americans are less likely to own construction businesses relative to White Americans. Women are less likely to own construction businesses than men.
- Asian Pacific Americans, Black Americans, and Subcontinent Asian Americans are less likely to own professional services businesses relative to White Americans.

Figure 4-11.
Self-employment rates in study-
related industries, California,
2018-2022

Note:

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2023 Small Business Credit Survey.

Group	Construction	Professional Services
Race/ethnicity		
Asian Pacific American	26.7 %	9.6 % **
Black American	16.8 % **	5.0 % **
Hispanic American	17.7 % **	10.5 % **
Native American	23.4 % **	10.8 % **
Subcontinent Asian American	18.7 % **	6.6 % **
Other race POC	25.4 %	18.5 %
White American	27.6 %	18.3 %
Gender		
Women	14.7 % **	12.0 % **
Men	22.4 %	15.1 %
All individuals	21.7 %	14.2 %

D. Business Success

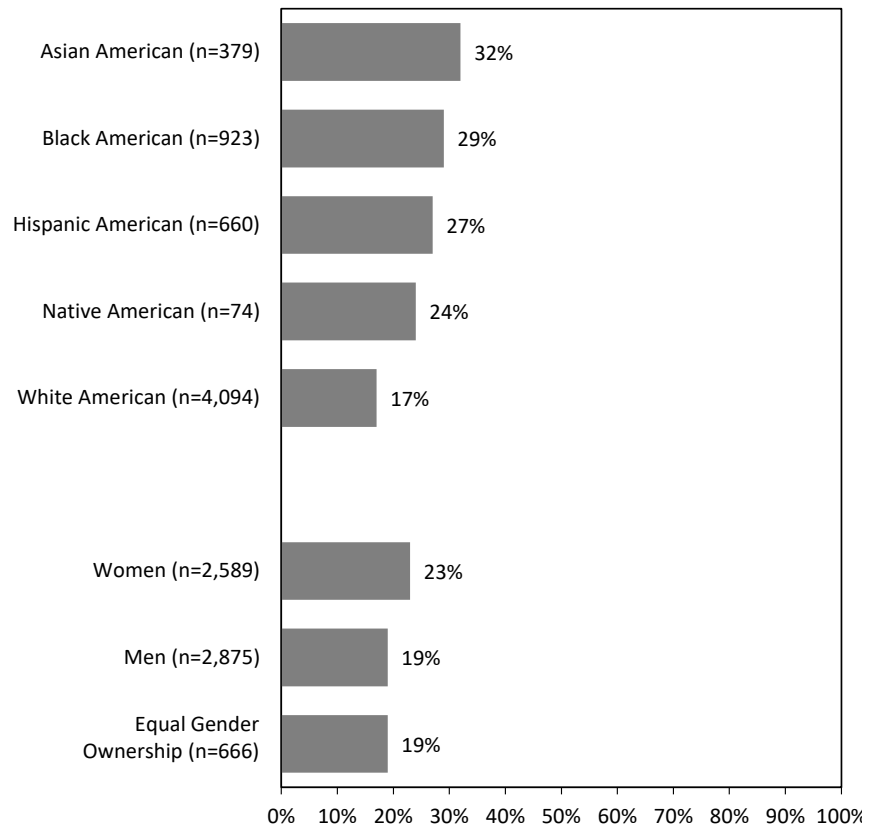
Research indicates that, nationally, POC- and woman-owned businesses fare worse than businesses owned by White American men. For example, POC- and woman-owned businesses are more likely to experience financial challenges relative to those owned by White Americans and men, respectively.¹³⁰

¹³¹ In addition, POC- and woman-owned businesses have been shown to be less successful than those owned by White Americans and men, respectively, based on a number of different indicators such as profits and business size.^{132, 133, 134, 135} BBC examined data on business financial conditions, business receipts, and business owner earnings to further explore business success.

1. Financial condition. BBC examined the reported *financial condition* of businesses in the United States by the race and gender of their owners. Financial condition refers to a business' increase or decrease in revenue and number of employees in the past 12 months as well as anticipated increase in revenue and number of employees over the next 12 months, as reported in the Small Business Credit Survey. Financial condition also assesses financial challenges a business may have experienced in the past 12 months including weak sales, difficulty paying expenses, uneven cash flow, and credit availability. As shown in Figure 4-12, Asian American- (32%), Black American- (29%), Hispanic American- (27%), and Native American-owned businesses (24%) are more likely than White American-owned businesses (17%) to report being in poor financial condition. In addition, women-owned businesses (23%) are more likely to report being in poor financial condition than businesses owned by men (19%).

Figure 4-12.
Businesses in poor financial
condition in the United States,
2023

Source:
 BBC from 2023 Small Business Credit Survey.



2. Business receipts. BBC also examined data on business receipts to assess whether POC- and woman-owned businesses in California earn as much as those owned by White Americans and men, respectively. Figure 4-13 indicates that Asian American-, Black American-, Hispanic American-, American Indian and Alaska Native, and Native Hawaiian and other Pacific Islander-owned businesses have annual business receipts less than those of businesses owned by White Americans (\$2.85 million). In addition, woman-owned businesses (\$1.45 million) have annual business receipts less than those of businesses owned by men (\$2.98 million).

3. Business owner earnings. BBC also analyzed the earnings of business owners to assess whether owners who are POCs and women in California earn as much as business owners who are White Americans and men, respectively. As shown in Figure 4-14, Asian Pacific American (\$52,673), Black American (\$44,978), Hispanic American (\$38,330), Native American (\$43,952), and other race POC (\$53,342) business owners earned less on average than White American business owners (\$67,164), and woman business owners (\$41,674) earned less on average than male business owners (\$63,368).

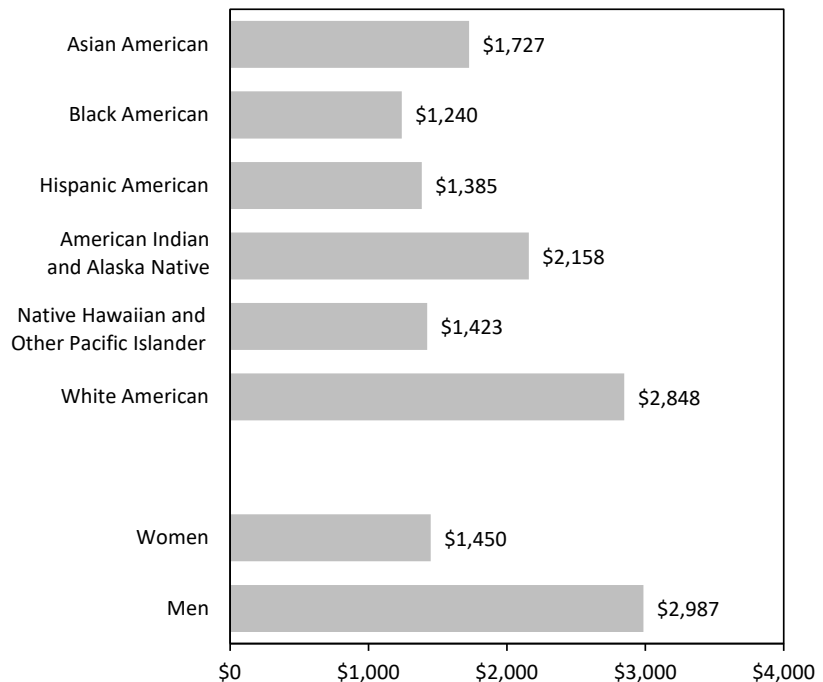
Figure 4-13.
Mean annual business receipts
(in thousands), California

Note:

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

Source:

BBC from 2017 Annual Business Survey.



BBC also conducted regression analyses to determine whether race- and gender-based differences in business owner earnings in California exist even after statistically controlling for various personal factors such as age, education, and family status. The results of those analyses indicated that Asian Pacific American, Black American, and Native American business owners earned less on average than White American business owners, and woman business owners earned less than male business owners.

Figure 4-14.
Mean annual business owner
earnings, California, 2018-2022

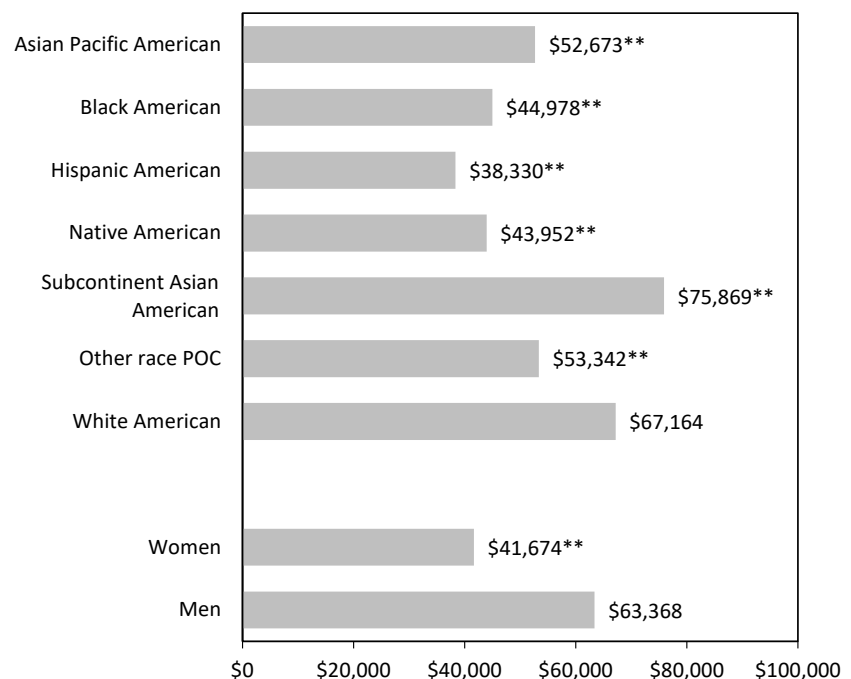
Notes:

The sample universe is business owners aged 16 and older who reported positive earnings. All amounts in 2021 dollars.

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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

BBC's analyses of marketplace conditions indicate that POCs and women face barriers in industries relevant to Caltrans' contracting and procurement. Both existing and primary research we conducted indicate that disparities exist in acquiring human capital, accruing financial capital, owning businesses, and operating successful businesses. In many cases, there is evidence those disparities exist even after accounting for various personal factors. There is also evidence 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 POCs and women to start businesses in relevant industries—construction and professional services—and to operate those businesses successfully. Any difficulties those individuals face in starting or operating businesses may reduce their availability for government work and the degree to which they are able to successfully perform such work.

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¹³³ Coleman, Susan and Alicia Robb. "A Comparison of New Firm Financing by Gender: Evidence from the Kauffman Firm Survey Data." *Small Business Economics* 33, no. 4 (2009): 397–411.

¹³⁴ Robb, Alicia M. and John Watson. "Gender Differences in Firm Performance: Evidence from New Ventures in the United States." *Journal of Business Venturing* 27, no. 5 (2012): 544–558.

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CHAPTER 5.

Qualitative Data Collection

As part of the disparity study, business owners, trade association representatives, and other stakeholders had the opportunity to share personal insights about their experiences working in California as well as with the California Department of Transportation (Caltrans). BBC Research & Consulting (BBC) documented those insights and identified key themes about conditions in California for person of color (POC)- and woman-owned businesses as well as other businesses. The study team used that information to augment many of the quantitative analyses we conducted as part of the disparity study to provide context for study results and provide explanations for various barriers POC- and woman-owned businesses potentially face as part of Caltrans' contracting and procurement. Chapter 5 describes the process we used to collect personal insights and key themes BBC identified from that information.

A. Data Collection

The study team collected personal insights about marketplace conditions, experiences working with Caltrans, and recommendations for program implementation. We made various efforts between January and November 2024 to collect that information:

- **Public forums:** The study team solicited stakeholders for written and verbal insights at 25 public forums BBC facilitated both virtually and in person on March 6, 15, and 19; April 15 and 17; May 1 and 2; July 19; September 10, 17, and 20; October 1; and November 7, 12, 15, and 19, 2024.
- **In-depth interviews:** The study team conducted 65 in-depth interviews with owners and other representatives of local construction and professional services businesses. The interviews included discussions about interviewees' perceptions of, and experiences with, the local contracting industry, working or attempting to work with government organizations in California, Caltrans' implementation of its business assistance programs, and other relevant topics. BBC identified interview participants primarily from a random sample of businesses the study team contacted during the availability survey process, stratified by business type, location, and the race/ethnicity and gender of business owners. The study team conducted most of the interviews with the owner or another high-level representative of each business.
- **Availability surveys:** As part of the availability analysis, BBC conducted surveys with 1,305 businesses operating in the California marketplace. The survey included an opportunity for participants to share qualitative insights about whether their companies have experienced barriers starting or expanding businesses in their industries, obtaining work in California, or working with government organizations in the state. A total of 948 survey participants shared such information.
- **Focus groups:** BBC conducted four focus groups with representatives of business organizations, such as chambers of commerce, business assistance organizations, and other business groups. We conducted the groups on June 24 and 25 and August 19 and 20, 2024. During each focus group, participants engaged in discussions and shared insights about working in California with public and private sector organizations.

- **Written comments:** Throughout the study, stakeholders and community members had the opportunity to submit written comments directly to BBC regarding their experiences working in California. A total of 22 stakeholders and community members shared such comments.

B. Key Themes

Various themes emerged from the personal insights BBC collected as part of the disparity study. We summarize those themes by relevant topic area and present illustrative quotations for each one:

1. Human capital (beginning on page 2);
2. Workforce and personnel (beginning on page 7);
3. Financial capital (beginning on page 9);
4. Obtaining and performing work (beginning on page 16);
5. Remedial programs (beginning on page 22); and
6. Discrimination (beginning on page 30).

In an effort to protect the anonymity of individuals and businesses, we coded the source of each quotation with a random number and prefix that represents the individual who submitted the comment and the data collection method:

- “AV” indicates availability survey comments;
- “FG” indicates focus group comments;
- “PT” indicates public forum comments;
- “WT” indicates written comments; and
- In-depth interview comments do not have a prefix.

We also preface each quotation with a brief description of the race and gender of the business owner and the business’ line of work. In addition, we indicate whether each participant represents a certified disadvantaged business enterprise (DBE), a certified minority-owned business enterprise (MBE), a certified woman-owned business enterprise (WBE), a certified small business enterprise (SBE or SB), a certified emerging small business (ESB), a certified service-disabled veteran-owned business (SDV or DVBE), a certified small woman-owned business enterprise (WOSB), a certified local business enterprise (LBE), a certified small and local business enterprise (LSBE or SLBE), a micro business enterprise (Micro SB or Micro SBE), an 8(a)certified business, a certified airport concessionaires disadvantaged business enterprise (ACDBE), a certified small business enterprise for the purposes of public works (SB-PW), or other relevant certification.

1. Human capital. Human capital refers to the collection of personal knowledge, behavior, experience, and characteristics that make up an individual’s ability to perform and succeed in particular labor markets. Factors such as a business owner’s education, business experience, and managerial experience have been shown to be related to the success of their businesses. Business owners and representatives interviewed for the disparity study discussed the challenges their businesses face in the California

contracting marketplace associated with human capital, such as barriers related to obtaining necessary education and licensure, as well as gaining labor and managerial experience in the industry.

a. Licensure. Caltrans requires individuals it works with to obtain certain licenses; however, the licensure requirements differ by industry (e.g., construction versus professional services). Some types of licenses require a supervisor to sign off on an employee's quality of work or to be hired by a company as an apprentice to gain the experience necessary to be eligible to take the test for licensure.

A woman representative of a DBE-certified professional services company stated, "With a survey license, for example, you have to have experience, and you have to have other professional surveyors sign off on your work. I don't know if the academic path at that particular school is enough, but it certainly would help." [#7]

The Asian American owner of an MBE-certified professional services company stated, "When you have a certain number of years of experience, then three supervisors independently write a letter about your expertise and also recommending that yes, you can take the test. It's not that you got the license, you are just allowed to take the test." [#29]

The non-Hispanic White owner of a DVBE-certified construction company stated, "It requires a contractor's license and in order to legally get a contractor's license, you have to have 8,000 hours of experience and you should be a journey-level carpenter before you head out on your own." [#32]

A representative of a majority-owned, DVBE- and SLBE-certified professional services company stated, "Once you become a land surveyor in training, I think you need to build a portfolio under a licensed land surveyor. So, I think we have four California-licensed land surveyors on staff. So those guys will assist the people who are in training with putting together their portfolio and making sure they do the right kind of work to build up [experience]." [#38]

The cost of education to obtain the necessary licenses is often quite high and poses a barrier to small businesses that would benefit from offering additional training to its employees.

The Black American owner of an SB- and Micro SB-certified professional services company stated, "It does cost a little bit of money to get the license, not a whole lot, but to take the exam and to study. So, I have people that work for me in my company that are engineers with a bachelor's, master's, PhDs even that have a hard time getting that PE [professional engineer license] ... and they're people of color too. And they have an issue in terms of costs and training because it does cost a little bit of money to get that training." [#24]

The non-Hispanic White owner of a Micro SBE-certified professional services company stated, "There are training programs available even in certain field geology outside of school, there are classes that are offered by certain companies, but you have to pay for them." [#42]

The non-Hispanic White owner of an SBE-certified professional services company stated, "Probably financial barriers because everything we do, you have to pay money to go to a class for. And so, until you have a good standing and have a list of clientele where you have

money coming in, it's virtually impossible to go get training that's either free or inexpensive." [#48]

Certain licenses require different insurances or bonding to obtain and can be invalidated if there is a lapse in coverage.

The Hispanic American owner of an MBE-, DBE-, SBE-, and LSBE-certified construction company stated, "I got a specialty [license], which is the grading and excavating portion of it. And then once you start trying to get into more contracts, talking with other folks, you realize that just a specialty grading one doesn't work that well because you're limited. You can't be a prime, you can't be a prime or anything. And most jobs require more than one thing. So, then I had to go back and get ... my general engineering license so that I could take on the whole project. ... Then I realized that if you move a tree or take down a tree or chip a tree, then you got to have a tree license. So, I had to go back and get my tree license. And then when you go back and get your tree license, that requires a different type of insurance. So that hurt me. That hurt me quite a bit." [#49]

A representative of a majority-owned construction company stated, "The trick is when you get your license, that your insurance turns on right then and there. But it's kind of hard to arrange. Sometimes in order to issue you the license, you have to prove you have the insurance. And so, as you may have passed your tests, you still have to pay for insurance without actually any way of earning a living until they give you the license, which can take a couple months." [#62]

b. On-the-job training. Most opportunities to obtain formal on-the-job training are through professional associations or membership in a union. Many unions require its members to train apprentices for future work.

The Hispanic American owner of a DBE-certified construction company stated, "I train them on the field, and we also send them to different training programs, like the AGC [Associated General Contractors] has good training programs." [#12]

A representative of a majority-owned construction business stated, "We're a union company and in all of the unions that we're signatory to, operators, carpenters, laborers, teamsters, masons, they do all have apprenticeship programs." [#14]

A representative of a majority-owned construction company stated, "If you have less money as an individual, whether or not you have a business, but you work for a small business and you want to upskill yourself or you're thinking of starting a business or you have a business and your financial limitations, it may prohibit you from embarking on further training. For example ... you might want to learn more of the equipment operation for civil works. And at least in the state of California, a lot of it's kept in unions. ... There's an operation in Sacramento ... and that one you don't unionize, but that's at least double the price. And so, it makes it very cost-prohibitive for small businesses." [#62]

Interviewees pointed out there are gaps in training for certain trades, particularly for environmental consultants.

A representative of majority-owned professional services company stated, "That's one of the things I wish the industry could get together and do a better job on. We actually pay into a training program, but there's nothing that's been established for construction inspectors. It's not like the other trades where you can be an apprentice or a journeyman in carpentry or masonry. That's a hole in the industry." [#3]

The non-Hispanic White woman co-owner of a WBE- and Micro SBE-certified professional services company stated, "A great portion of what we do is regulatory compliance. So, regulations for stream alteration agreements or regulations associated with the Army Corps of Engineers or regulations associated with the water board and storm water. No one teaches any of that in school. They teach the general courses of geology, biology and engineering, environmental science. So, for me, a kid comes out of school, there's a huge training curve." [#50]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "I think the market is exceedingly deficient. The UC [University of California] system has tried through their extension programs to provide courses in the California Environmental Quality Act and complying ... teaching professionals how to perform these environmental assessments. Having taken these courses, I find them to be very deficient." [#58]

c. Experience and expertise. Most business owners who worked as managers or other high-level staff before starting their own business discussed how their past experience offered a crash course in their industries and in business ownership, setting them up for success when starting their own company. Others noted that acting as a manager or high-level staff inspired them to start their own business.

The Hispanic American owner of a DBE-certified construction company stated, "I've only worked lead man, foreman, and worked my way up to superintendent. ... It gave me a baseline for, first of all, how to run work, what's required to get the job done, and then learning business experience as I go." [#12]

The Black American owner of a DBE-, MBE-, and SBE-certified professional services company stated, "I held a key position in the family company, so I learned all aspects of how to run the operations side." [#28]

The Hispanic American owner of a construction company stated, "You hear the story all the time. I was a superintendent at that time, and if there was a break, a mainline break or a tree went down or whatever, I would be getting the calls at midnight, 2:00 in the morning, whatever you want to call it, just dinnertime or whatever. ... And one day I walked in and I saw all this paperwork in front of me and I just thought, you know what? The light bulb went off. Got my contractor's license. I was telling you that I was doing close to half a million dollars in billing a month, so if I'm going to be answering, going out at 2:00, 3:00 in the morning or holidays or whatever, you know what? It's best that I do it for myself because then I know it's for myself, it's not for a company that's making money on top of me. So that was it. That's how I started." [#41]

The Hispanic American owner of a construction company stated, "I'd have to give a lot of credit to my previous employer because it was like a testing ground for me. I had full reign of running his whole business. He was usually gone, absent from the business for three to four months out of the year of vacationing, and so I was calling all the shots. I was making all the critical decisions and running the whole business. Plus, I was probably bringing in

about 60% of the trade in sales. So, it was a real learning experience, because then by the time I came here to help and to start my own business, well, I had contacts, I had a lot of associations that I'd made." [#56]

d. Mentorship. Having close mentors, especially those who own their own business, provided many business owners with the guidance and sometimes financial support to launch their businesses. Additionally, these mentors introduced the business owners to their networks, helping them develop relationships important to business development.

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "[My mentor was helpful in] very practical ways. One, [they] understood licensing and applying and had a good idea of what licenses I should get and why I should get it. And then the second thing was he provided financial help to start it. ... And then, he also gave us the introduction to his bank, his bonding company, and his insurance company." [#2]

The Hispanic American owner of a DBE-certified construction company stated, "My friend taught me what jobs to look for, how to bid, where to look, the paperwork that needs to be filled out, just the basics of contracting with Caltrans." [#12]

The co-owner of an Asian Pacific American-owned, DBE-, MBE-, and 8(a)-certified construction company stated, "We had some good mentors, just friends in the industry who we could look at and that's how we identified the federal government or some of our other clients, was seeing what people who were more mature were doing, but not so far in front of us that we couldn't connect the dots." [#35]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "When I started my business in 1990, the guy who I used to work for ... was my area manager. ... [He] started his own distributorship and called me one day and said, 'Look, I got this location out here in the valley. I got trucks, I got oil and storage. You want to come out here and run your business out of here?' What he did for me would've taken a half million dollars to do in cash. So, what he did for me, you can't put a dollar figure on it. But if I did, it had to be at least a half million dollars to get my business started. That's inventory-wise, there's administration, there's buying the product, getting the vehicle to haul the products. Yeah, he invested about a half million dollars in me to do that." [#64]

However, business owners said mentorship that is not tailored by industry or by life stage of a business is unhelpful and can be a waste of time.

A representative of a DBE-, WBE-, SBE-, Micro SBE-, and SB-PW-certified construction company stated, "[I participated in] an 18-month program and I stuck it out the entire term, which is the only reason I graduated. But they did absolutely nothing for me in any way, shape or form. They'd reach out to me once a month or something like that, say, 'How you doing? Have you thought of converting over to inspections as of yet? Look at these projects you could possibly bid on.' Of course, I'd be bidding against them. So, it was just beyond stupid." [#13]

The non-Hispanic White woman owner of a WBE-, SBE-, and DBE-certified professional services company stated, "They [Service Corps of Retired Executives, or SCORE] talked

about some of the nuts and bolts of, you know starting a company. ... Some of those kinds of things were a little bit helpful, but ... it seemed like they were much more tailored to different types of businesses than ours." [#44]

Businesses that had experience with Caltrans' Calmentor Program spoke positively of the program.

A representative of majority-owned professional services company stated, "And truthfully, that's not just DBEs, that's kind of any small business. They're trying to learn the ropes. Right? I do know that we participate in the Calmentor Program. We're a big believer in that." [#3]

The Hispanic American owner of a WBE-, DBE-, Micro SB-, SDB-, and WOSB-certified professional services company stated, "Caltrans has a Calmentor Program as well, which is fantastic." [#6]

A participant in a focus group stated, "I'm sure you guys have talked about the mentor-protégé [program], that's a great program and a lot of what we're trying to do in that program is help educate those DBEs so that they get further along the ready." [#FG2]

2. Workforce and personnel. Many business owners reported having difficulty finding sufficiently skilled staff, particularly if the business does not have the capacity to train individuals in-house.

The owner of a majority-owned construction company stated, "We don't really provide any training per se. We're looking for someone who already has the experience or knowledge to run the tractor properly." [#15]

The Black American owner of an SB- and Micro SB-certified professional services company stated, "Everybody I hire, especially their licensed engineers, you expect them to be proficient in what they're doing. So there is no training, but there is collaboration" [#24]

The Hispanic American owner of a construction company stated, "We've got to train them. ... We definitely need to train more electricians and craftsmen ... because there isn't any out here, and the ones that are haven't gone to school. ... That's the problem. It's difficult to find people that are knowledgeable." [#31]

The Hispanic American owner of an MBE-, DBE-, SBE-, and LSBE-certified construction company stated, "I'm crying for the whole industry. ... They're looking for people. They're saying, what is the number one thing, there's not enough help out there. There's not enough help, not enough workers, not enough skilled labor. Well, if we keep playing these games and not allowing people to work and gain the skills, we're going to run even further into this problem in the future." [#49]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "As a small business, you're investing so much time in trying to cultivate the skills in these early professionals that it ends up having an impact for a small business." [#58]

The challenges of keeping adequate staff are exacerbated high rates of retirement in certain industries, reducing the pool of skilled individuals or the ability to have internal on-the-job training.

A representative of a majority-owned professional services company stated, "It seems like a lot of people are retiring and not a lot of younger people are coming into the trades, at least not the volume of what we need." [#1]

A representative of a majority-owned professional services company stated, "People are continuing to retire out of the industry, money is being pumped into programs so the work is out there, and you've just got a supply and demand thing, and the supply is not there. We're watching salaries go up crazy. We're all competing with people. There's just not enough qualified people out there. And you see it. You see it. And the contractors are having the same problem, Caltrans, we're all trying to hire from the same pool." [#3]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "There's an entire generation of baby boomers who are retiring from the construction industry and there are not sufficient training and apprenticeship programs available in the state of California as well as throughout the country who can backfill the amount of employees who are being lost. So, it is a huge challenge to find qualified employees." [#20]

Business owners said they struggled to recruit and retain staff, noting that larger companies or government agencies are able to outmatch the benefits they are able to offer.

The Black American owner of a DBE-, MBE-, and SBE-certified professional services company stated, "Almost 80% of the people you asked that question to, they're all gonna say none [when it comes to how many surveyors they know]. Nobody really pursues this profession, and the few that do, you know, they get sucked up by government agencies, [the] county, Caltrans, whatever, they're gonna try to get in something that's big and they can get in there and just die there. You know what I mean? And if they go into private [sector work], they're gonna aim for the big companies. So, we get kind of left with the leftovers, you know, small guys like me get left with the leftovers." [#28]

The non-Hispanic White owner of a WBE- and WOSB-certified professional services company stated, "[One of my employees] is very good at training people, so he'll bring in students right out of college. And they're amazing, but they all leave us and go and work for the government. ... We have those employees who, they turn over every two to three years because like I said, they start as interns, and then they get their training ... and then they go to work for the government. You're not going to stop that no matter what you offer them, unless you can come close to the government pensions and the days off and all of that." [#30]

The non-Hispanic White woman co-owner of a Native American-owned, DBE-certified professional services company stated, "It's tough being a smaller business to retain people. I've had experience where people have come to work for me for a year, year and a half because I'm a small business and was willing to hire them where a larger business wouldn't hire them because they didn't have the experience. Then as soon as they get the experience working for me, then I can't offer as much as a larger civil engineering firm can, and so then they end up going off and moving on to a different larger firm that maybe has a better benefit package or can [offer] them more larger projects to work on." [#36]

A representative of a majority-owned, DVBE- and SLBE-certified professional services company stated, "It depends on how competitive they can be with their offer. So, I know it's harder for small businesses to pay big salaries versus a giant corporation. ... I don't think a person would say, 'Oh, I don't want to work for a minority business.' I think they might have less luck in the recruitment process purely just because of what they can offer." [#38]

The non-Hispanic White woman co-owner of a WBE- and Micro SBE-certified professional services company stated, "The structure of pay and benefits is different in Northern California than it is, say, in Sacramento or San Francisco or the Bay Area. So, it's pretty hard for us to say, 'We'd like to hire an engineer, but by the way, our salary cap for an engineer is \$150,000, in the private sector' when the state of California is paying \$180,000 and they're paying \$210,000 for example, in the Bay Area." [#50]

Interviewees shared the cyclical effects of insufficient staff—without a big enough workforce, businesses are unable to take on more work to grow the business, and without enough work, staff may leave for other opportunities.

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "As a small business, one of the problems that we have competing for employees is that we only have a fixed number of contracts and so we can't normally keep our employees employed a whole year. And so, larger companies can get their key people and can employ them all year and you have a harder time doing that." [#2]

The owner of a WBE-, DBE-, SBE-, and WOSB-certified construction company stated, "Because we are small, sometimes we have a lull in work. ... Because we are small and jobs get delayed, I mean, Caltrans just keeps delaying jobs, and when you bid, they give you a start date. Well, there's an assumption that you bid on it, it'll start on a certain date, and it'll take a certain amount of man-hours to complete. When Caltrans shuts you down, my guys don't have any work, then I can lose them, because clearly, they've got to pay their rent, they've got to eat. And if I can't find other work for them, they have to go and work for someone else and then they don't come back. So the Caltrans management of projects, when you're a small business and you don't have lots and lots of employees and lots and lots of contracts, their mismanagement of a contract can really put a strain on our business." [#8]

The Hispanic American owner of a DBE-certified construction company stated, "The biggest challenge for me is keeping the guys busy, because if you [don't] keep them busy, they go and they find work somewhere else. And once you've invested time and training and mentorship into your labor group and you don't have consistent work, then you start to lose those guys." [#12]

3. Financial capital. Another important factor in a business' formation and success is the ability to secure financial capital, which includes the business' revenue in addition to lines of credit, loans, and bonds. Generally, interviewees said that newer businesses faced the most difficulty obtaining financing,

and when they did get lines of credit, loans, or bonding, they were often at a higher cost than would be offered to more mature businesses.

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "Getting a bank to believe in you is huge. And you look at a lot of these Caltrans projects, you have to have a line of credit to even get the contract. ... My workman's comp[ensation] rating and my insurances and my bonding are probably right now costing me 30% to 40% less than when I started up." [#2]

A representative of an LBE-certified construction company stated, "With the start-up of a company, people don't trust you as much. ... I did a lot of research because I applied to the normal banks like Chase and Wells Fargo and things like that. Well, immediately, my business was new, so they were rejecting a lot of my application." [#11]

The non-Hispanic White woman co-owner of a Native American-owned, DBE-certified professional services company stated, "We just basically got told we were too small, too new at the time, and so we ended up having to personally finance vehicles for the business." [#36]

For businesses that could not receive financing through traditional financial institutions, many relied on alternative sources of financing such as using home equity or retirement funds.

The Black American owner of an SB- and Micro SB-certified professional services company stated, "Luckily, I used some of my own funds from retirement. I bought a home in a disadvantaged area where there's some tax advantages. And I used that home as part of my business. I write that off." [#24]

The Hispanic American co-owner of a Hispanic American-owned, DBE-certified construction company stated, "More often than not, we have been denied. So the only way we have ever been able to obtain a line of credit ... is going through these very obscure lending companies that have ridiculous terms and interest rates and payments. We just like to call them the loan sharks of the financial institutions. So, unless you go to one of those that will lend money to anybody because their terms are so ridiculous, you're not going to get a loan from a reputable financial institution." [#34]

The non-Hispanic White woman co-owner of a WBE- and Micro SBE-certified professional services company stated, "Most of the expansion and perseverance of the firm over the years has been taking out personal loans against my house." [#50]

Businesses that could receive loans, lines of credit, or other financial assistance through banks or other traditional lenders discussed the high risk and cost of obtaining financing.

The Hispanic American owner of a DBE-certified construction company stated, "I have obtained loans, very expensive loans. They're very hard to get, and I have to put my personal guarantee and everything I own to back it. And again, they're very expensive." [#12]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "It's so expensive to just operate, the resources it

would take to pay back those types of high-interest loans just seems like something that brings in far too much risk into our professional profile." [#58]

The Hispanic American owner of a construction business stated, "There's a lot of companies that say, 'Oh, yeah, we will mainly deal with disadvantaged business,' et cetera, et cetera. But at the end of the day, they give you a higher interest rate. So, it's like, are you really doing the service, or are you still just gouging us? Because technically we are at higher risk, but that's not helping. I mean, they say they're offering and they do the business with disadvantaged business, but you look at the interest rate, it's like, 'Oh, okay, it's still high.' ... for a minority-owned business, we have to get low interest rates. I mean, I know we're high risk and everything, but like I said, we know how to do work." [#65]

a. Bonding and insurance. To bid on most public sector work, businesses must have proof of insurance and, for construction-related work, bonding. This poses a challenge for newer businesses, as there is often a lag time from bidding on a project to project award and from project award to the first payment.

A representative of a DBE-, WBE-, SBE-, Micro SBE-, and SB-PW-certified construction company stated, "A job comes out to bid today, the walk is in three weeks, the bid is due in about five weeks. You win the bid. So, six weeks you find out you won the bid, then they send you over the paperwork, you got to pay for the 3% of the contract value for the bond. Then you send it off to them. Thirty days later, or somewhere around 30 days later, they send you the contract back for you to sign. You sign it, then you send it back to them. 30 to 45 days later, you get the official contract with their signature on it, and then one or two weeks later you'll get a call, say, 'When can we schedule a start date,' which will be anywhere from two weeks to two months later. So, your money's off now. And then, you have to actually show up and start the job and do 30 days' worth of work before you can invoice, so your money's sitting out there for five or six months." [#13]

The Hispanic American owner of a construction business stated, "To bid on Caltrans projects, you have to have bonds already in place. So one of the bonds and insurances that cover what they expect you to have on the projects, which it's reasonable, but at the same time, if you're only bidding on it, and you're expected to have this in place already, then that's additional money that ... you have to spend, just to try to bid on those projects." [#65]

Businesses that do public sector construction-related work must often bond their work as an insurance measure in case of non-performance. These businesses are limited in the total amount of work they can bond at any given time. Bonding limits are directly related to a business' credit and balance sheet, requirements that are harder for newer businesses to meet.

A representative of majority-owned professional services company stated, "Bonding is a requirement that takes pretty strong financials, so building a balance sheet is a tremendous barrier to growth. And I will say that starting a business today is even more challenging, just when I talk about cash flow and balance sheet requirements. ... I mean, our receivables can run out 60, 90 days, especially working for Caltrans, they like to withhold money for lots of things. So, it is a huge barrier to entry nowadays to build an equitable balance sheet." [#1]

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "One of the major things that bonding company look at is your net assets and your net wealth. And like I said, you can look at the studies and statistics and know that the minorities have a lot less significant reserve wealth than say, White males do. So, I'm assuming that it has to impact [disadvantaged businesses]." [#2]

The owner of a WBE-, DBE-, SBE-, and WOSB-certified construction company stated, "They base it on cash flow. So, it's hard to grow. It's a self-fulfilling, defeating prophecy. I can't get the bond, so I can't get the bigger contract, so I can't grow the business. My business has been the same size for four years because of that." [#8]

The Hispanic American co-owner of a Hispanic American-owned, DBE-certified construction company stated, "It's difficult because although we have obtained bonds, it's difficult because the underwriters that are issuing those bonds are looking primarily at your financial situation. And again, if you are not financially sound or financially stable, they may not give you the bonding capacity that allows you to go after larger jobs. They may provide bonds but on a much smaller scale. Meaning, it takes you out of the running from getting bigger jobs because you're not able to be bonded for those amounts." [#34]

Some business owners noted that a contract's insurance requirements may not be in line with the scope of work to be performed, either because the coverage required is much higher than the expected cost of work, or because the required insurances do not represent the scope of work.

A woman representative of a DBE-certified professional services company stated, "We actually lost a contract over insurance. We have one municipality that looked at our qualifications and said, 'Yeah, we want you to be on our on-call engineering services contract list,' with whatever, five other people or whatever it was. But they said, 'We want you have ... \$4 million [in coverage] and you're not guaranteed any work.' And so I said, 'Look, wait, I'm willing to get additional coverage when you guys have a project for me.' And they were not willing to budge. They actually let me go." [#7]

The Hispanic American co-owner of a Hispanic American-owned, DBE-certified construction company stated, "It is such an unfair scale to require such high insurance limits. We have a customer that requires an enormous amount of insurance capacity, yet it could be for a very small job. ... In order to be an accepted vendor for them, in order for us to qualify to bid their jobs and to perform their jobs, we have to have the insurance capability or the capacity or the bonding capacity as if we were doing a million-dollar job, which has never been the case, but it doesn't matter. Whether it's a thousand dollars or a million dollars, the insurance and the bonding, they take in account the larger amount, which is ridiculous because the more insurance, the higher the bond amount, the higher the premium." [#34]

The non-Hispanic White woman owner of a WBE-, SBE-, DBE-certified professional services company stated, "The type of work we're doing, it's not like an architect where somebody is building off the plans or an engineering firm. You know, we do policy planning, so we will work for the city to help them create a plan for the next 30 years in the future, but it's not that someone is going to take that plan and build something. ... There's really no reason for us to have a \$2 million insurance policy to do that type of work." [#44]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "It's very expensive. ... Caltrans says, 'Oh, we want \$1 million in errors and omissions insurance, and we want \$2 million for vehicle liability.' And that's the same level they expect from a larger firm. It's not that their expectations decrease. And I understand. I mean, from a Caltrans perspective, it's all about liability and making sure there's enough funding should anything go awry, which often does. But this is why, from a small business perspective, it's hard to scale up." [#58]

Many public sector projects do not stipulate levels of bonding or insurance subcontractors are required to have, leaving prime contractors with the responsibility of either covering the subcontractors' work with their bonds and insurance or requiring the subcontractor to obtain their own coverage. This results in prime contractors having different expectations, which can prevent small businesses from working with certain prime contractors that have expectations significantly higher than the industry standard.

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "If I am a subcontractor, what happens is those requirements are on the prime contract and the prime contract now says, 'Well, you have to provide insurance at this same level' when I'm not performing the whole contract, I'm only performing a smaller portion of the contract. So, insurance is a challenge." [#20]

The Hispanic American owner of an MBE-, DBE-, SBE-, and LSBE-certified construction company stated, "Caltrans, they don't stipulate what the insurance requirements are. That's up to the contractor ... [to] stipulate what the sub insurances have to be. So it's like one of the very first steps of playing a game. Because you could set your insurance at \$5 million, \$8 million general liability, and no small business can afford that. No small business can afford that and they know that. ... That's a first step of playing the DBE game." [#49]

The Hispanic American owner of a construction business stated, "We had a supervisor that ... had the subs get their own insurance, when the company would [normally] provide, they would get a big insurance, and then they could piggyback off of theirs. ... He made them get their own insurance, their own bonds for that project, because it involved the street. And it turns out that they couldn't get released from the insurance until the whole project was done, even though they were done with their [portion of the] project. ... So they had to wait another year and a half or two, so that the whole project was done. ... They got stuck by paying for that insurance until the project is done. ... Things like that will break you." [#65]

b. Payment. Most public sector agencies pay for work within 30 days of receiving an approved invoice, and many, including Caltrans, require prompt payment to any subcontractors, suppliers, or truckers. However, there are many factors that may delay payment, such as invoices that do not meet the agency's requirements, internal miscommunication, or delayed submission by prime contractors.

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "We were almost put out of business by Caltrans a few years ago and that was because we ended up doing some emergency work and we had several going at the time, but one of the engineers from Caltrans wasn't filing his daily reports and then he finally filed them four months later. And so, then there was some contention about the invoices. ... [It was] eight months that he didn't pay us and it was almost three-quarters of

a million dollars and I was through all of our cash. They paid me one week before we were going to go out of business and we were doing fine financially in every [other] aspect." [#2]

A representative of an LBE-certified construction company stated, "[Prompt payment law] requires the prime [contractor] to pay me within three days after they get paid. But the thing is, if the prime is not submitting the invoice on time, there's no law there or no requirement for them to submit the invoice on a timely basis. So yes, they were complying with their payment duty, but they were not complying with submitting my invoice on a timely manner." [#11]

The Hispanic American owner of a construction company stated, "The prime usually holds my money because they want all the T's crossed and the I's dotted before they cut any checks. Usually, I have to go through a paperwork nightmare." [#21]

A participant in a public meeting stated, "I turned in an invoice because we had a kickoff meeting, and then they [Caltrans] said, 'Well, your invoice isn't good enough.' Like she said, 'You have a middle initial wrong.' ... They wanted to see the entirety of my employees' pay stubs. That's their private business and my private business. Why do I have to give the pay stubs for our other job work to Caltrans? But they said, 'Well, we're Caltrans. We get to do it.'" [#PT1]

For many small businesses, regular and prompt payment is critical for them to continue operating, as it is difficult for small businesses to have lines of credit or loans to cover operational costs while waiting for payment for work performed. If a small business cannot cover its operating costs, it may lose employees or future work opportunities.

The Hispanic American owner of a DBE-certified construction company stated, "I've been about to close down my business many times because I can't get paid in time, and I have to pay the employees and I have to pay the suppliers, and I've got to pay workers' comp and insurance and rent for the business, and just all these things have to be paid, and when our payment is delayed, it just puts significant stress on our business." [#12]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "They affect your business in the sense of you need alternative sources of funding beyond your business. And it's not always easy to acquire large amounts of money to float you to a point where you can take legal action and acquire that money. So there was an instance two years ago where the prime was about \$137,000 behind. ... I had to lend the business money. ... But when then you've depleted your own resources, and you start thinking about, 'Do I need to mortgage the house?'" [#58]

The Pacific Islander/Asian Pacific American representative of an SBE- and DBE-certified professional services company stated, "We have one client who is nearly two years behind and paying us, so that obviously effects our bottom line. How much more staff we can hire? How much staff can stay on the project? We have to foot the bill for all of that until we're paid." [#63]

A participant in a public meeting stated, "If we're not getting paid, and we can't get a lot of credit, and we're not getting paid, we can't take care of our employees. We can't take care of our obligations. ... Without that financing, you can't compete." [#PT8]

Many business owners reported experiencing instances of delayed or non-payment, noting that they have little recourse to recoup those payments. For those who have taken actions to receive payment, such as putting a lien on a project, pursuing legal action, or attempting mediation, business owners reported that they can lose more money in the process or be blacklisted from performing work with that company or agency.

The Hispanic American owner of a DBE-certified construction company stated, "I'm very limited as to the steps I can take because I'm not very well-versed in how to take someone to collections." [#12]

The Black American owner of an SB- and Micro SB-certified professional services company stated, "The thing is, this person [that owes me money] is still giving me business. So, it's like if I beat him up on this one thing, he's going to stop. So, I got to be real strategic in what I'm doing." [#24]

The co-owner of a WBE- and SBE-certified construction company stated, "I looked in the small claims court and all small claims court can do is pass a judgment. They don't actually make the individual pay. So, at that point it seemed like a huge waste of time and might as well just keep working and take that as a lesson learned." [#37]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "Particularly in the contracting realm, there's a lot of discrimination that goes on behind the scenes and it's when you are a sub to a prime. And those primes won't pay, they don't care if you become insolvent. ... Particularly if they somehow perceive you as being less than, be that because you're a woman, be that because of your ethnic background, they will definitely exercise that form of bias against you. ... I've spoken to the attorney, but it's all a matter of how much time and bandwidth and money do I want to pay in legal fees. Do I want to pay \$15,000 in legal fees to recoup \$37,000?" [#58]

A participant in a public meeting stated, "We have taken people to arbitration or mediation, and it costs us more money to get our money." [#PT8]

Businesses that have experienced delayed payments from prime contractors or agencies often said that they will not bid again with that company or agency on future work.

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "There are contractors that are WCOE [Woman Construction Owners & Executives] contractors out there who said 'I will not do business with Caltrans because it takes too long to get paid,' and they are not willing to do work when they have to wait four months to get a check." [#20]

The Black American owner of an MBE- and SBE-certified construction company stated, "There's some contractors that call me and go, 'Why don't you guys bid to us?' I go, 'Because I don't want to. I don't know you and this job's too big. And if I don't know you're going to pay your bills on time.'" [#33]

A participant in a focus group stated, "A lot of people choose not to work with certain contractors because they don't pay their bill." [#FG3]

A participant in a public meeting stated, "I have seen a lot of DBEs that decide they don't want to work with Caltrans because they cannot get paid on time." [#PT3]

Despite the reported slowness of payment from public agencies, most business owners who do public sector work felt confident that eventually they would receive payment. Compared to other public sector agencies, Caltrans is considered to be more transparent or timely in its payment processes.

A representative of majority-owned professional services company stated, "If we get a time and material element of the project, Caltrans pays every month. ... They like to hold money, but in general they pay every month." [#1]

A representative of a majority-owned construction company stated, "Caltrans, they have some fairly quick ... prompt payment requirements, but other ones can lag 60 to 90 days." [#18]

The Hispanic American representative of a professional services company stated, "One thing we don't have to worry about is getting paid by public agencies." [#55]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "At a minimum, I would say at least you can rely on being paid if you are a prime in the public sector." [#58]

A participant in a focus group stated, "Caltrans appears to be more transparent ... when they make payments and all that, you can access it online. Not perfect by any means, but more transparent than, say, LA Metro [Los Angeles County Metropolitan Transportation Authority] or one of them. Especially if you're a small subcontractor trying to track down your much-needed payment." [#FG3]

4. Obtaining and performing work. Interviewees shared the various methods they use to learn about upcoming work, such as searching online bidding platforms, attending networking events, or relying on referrals from past clients.

A representative of a majority-owned professional services company stated, "We get a lot of bid solicitations from prime contractors. We send a lot of bid solicitations. There's a ton of different platforms out there to register with anymore." [#1]

A representative of a Hispanic American-owned, WBE- and SBE-certified construction company stated, "We get a lot of repeat business from clients. And we spend a pretty good amount of time looking at bid boards, stopping by job sites, going to some of the ... industry get-togethers and just doing some networking." [#27]

The Hispanic American representative of a professional services company stated, "Once you're in the business, it's hard not to hear about it. You attend your associations, your professional meetings, and you hear it through word of mouth. 'Hey, have you heard about this?' Or sometimes smaller businesses who want to be on several teams who say, 'Hey, so-and-so saying that the city's going to come up with this project. Have you heard about it?'" [#55]

While these methods typically work for businesses, interviewees noted that some online platforms cost money to access. Although free options exist, especially for public sector work, they are disaggregated and take much longer to review to find relevant work.

A representative of a DBE-, WBE-, SBE-, Micro SBE-, and SB-PW-certified construction company stated, "PlanHub, basically every time you sign up for a site with the city that they're contracted with, they bombard you with the emails on how they can pay for their service. ... PlanHub gives you a free 30-day trial that allows you to see the project and then you have to sign up again with the city because PlanHub will kick you off. And to me that's not legal, but who do you complain to? Because all public works projects must be made free, available to everybody free of charge." [#13]

The non-Hispanic White owner of a WBE-, Micro SBE-, and DBE-certified professional services company stated, "Every state agency will have their bids here or there, RFP's or their proposals and their RFPs ... and yet there was still a paywall. ... You could only access certain portions of it, or you couldn't get the full bid plans there. ... There was a pay wall involved, [you had] to have a subscription for it, so if it's a state agency or public agency that is using our tax dollars to get jobs done, it should be fully transparent and available." [#26]

The Hispanic American co-owner of a Hispanic American-owned, DBE-certified construction company stated, "All those bidding platforms charge a fee. So again, it's costing us to get the notifications that there's a job." [#34]

A representative of a majority-owned construction company stated, "The portals to get into most of the governmental ones, even just the local community, it's totally possible to get into almost all of them for free, where you're on their bid list and they send them to you based on your selections of categories. But it's hard to locate them unless you call every city because you go on their websites, it's not clear, and it takes a long time, whereas there's these bid agencies that love to take money from you and say, 'We got it for you.' ... You really don't need them. ... Not impossible, but it's much harder. It'll take you way longer." [#62]

a. Learning about Caltrans work. Business owners view Caltrans' websites, in particular its Contractor's Corner web page, as useful tools to find out about upcoming work and potential project partners.

A representative of a majority-owned professional services company stated, "I tend to like the architecture of their website. I think it works pretty well." [#1]

The Hispanic American owner of a DBE-certified construction company stated, "Because we're a DBE, we're emailed invites for jobs that we can place bids. For Caltrans, we go to eProcure and we look on their website and see the upcoming projects." [#12]

A representative of a majority-owned construction business stated, "So finding work with Caltrans is easy because they post all of their upcoming opportunities on a 24-month look-ahead calendar. And then on top of that, they provide more detailed information on timing through their Contractor's Corner website and provide notices of upcoming opportunities that are happening that get listed every Monday morning by 9:00 AM. So that's actually one of the things that we're teaching in the mentor protege program is understanding the

Contractor's Corner website and being able to look and forecast upcoming opportunities that might fit their businesses." [#14]

Some business owners shared the perception that there are Caltrans' projects that are not competitively bid but are advertised on an invite-only basis.

The Hispanic American owner of a DBE-certified construction company stated, "I believe Caltrans invites some companies to bid on certain work because I see a lot of companies out there doing work that I don't see any publications or any advertising for, so I don't get the opportunity to bid on those jobs, and I think that's a huge disadvantage. I don't know how they determine what businesses to invite and which ones not to." [#12]

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "We found out that Caltrans does have a lot of invite-only projects that we were never aware of until we had enough experience, enough history with Caltrans to be invited." [#2]

A survey respondent stated, "It seems it's more of who you know, it's not readily available to know what jobs are available." [#AV287]

b. Bid process. When bidding or proposing on work with public sector agencies, most businesses noted that the process is more complicated in comparison to obtaining work from private sector clients. Businesses that have done work with Caltrans noted that the agency's bids or proposals require more paperwork and that the specifications for construction projects are more complicated and detailed than other public sector agencies.

The owner of a majority-owned construction company stated, "If we're talking Caltrans alone, I would say looking at their plans and specs, a little difficult. Some of their requirements are for ... some of their bid processes and their items that they bid, a little tricky to bid." [#15]

A survey respondent stated, "Doing work for Caltrans can be a pain from a paperwork perspective. We were a sub on a project and built the structures in about three weeks, but it took five or six months to get through all the paperwork and materials acquisition and verification." [#AV111]

A participant in a focus group stated, "We work with Colorado DOT [Department of Transportation] on a fairly regular basis. And I would say that if you just took Caltrans standard specifications and special provisions and you printed them out in the same format you printed out Colorado's, and you put the books on the table next to each other, the California book would be much thicker." [#FG2]

A participant in a focus group stated, "To be successful in Caltrans work, you really have to understand the specification and there is a lot to that. So we'll see some of these new small businesses or DBEs that want to bid Caltrans work and they simply just don't understand the specification of the paperwork ... but just how items are bid and paid for and how to structure their quote and reasonable exclusions or inclusions and just that type of just basic understanding of things." [#FG4]

Interviewees said the complicated process for bidding on work for Caltrans is compounded by significant variability in requirements based on the Caltrans district soliciting the work.

A representative of a majority-owned construction company stated, "Caltrans has different districts and different districts are led by different people and therefore their rules and processes vary even though it's the same entity." [#18]

The non-Hispanic White owner of a WBE-, Micro SBE-, and DBE-certified professional services company stated, "Caltrans does have this giant multi-thousand page volume called the Standard Environmental Reference and it's supposed to be like 'literally discuss this on this page, paragraph one, discuss this on paragraph two, page one.' ... So even though they outline it explicitly, there's a great deal of variation in the review process, and the acceptance process by district." [#26]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "Each district is doing something different and there's a policy from headquarters as to what they should do. But none of them are doing that. None of the districts are doing that." [#64]

A participant in a focus group stated, "When I was estimating, there was a different pricing process in my mind depending on what district I was bidding in." [#FG3]

Small businesses or businesses that do not frequently work with Caltrans shared that they see a bias toward awarding work to larger, more established businesses or businesses that frequently bid on Caltrans work. Some business owners said this bias disincentivizes them from attempting to work with Caltrans.

The non-Hispanic White owner of a DVBE-, SB-, and Micro SB-certified goods and services company stated, "When it comes down to it, Caltrans likes working with large contractors. And there's a certain amount of prejudice in it and the prejudice isn't revealed easily. So for instance, most subcontractors won't have a guy that's just dedicated to safety. Well, you'll read and you look through the things, that's almost required. Most subcontractors won't have a big line of credit. Caltrans won't pay for 45 to 60 to 90 days. ... All these type[s] of things are set up exactly for a big contractor that they normally use." [#2]

The co-owner of a non-Hispanic White woman-owned construction company stated, "Pretty much any Caltrans work in Southern California falls between eight different contractors. So why bother?" [#45]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "What was explicitly communicated to me by the contract manager [at Caltrans] for that pursuit was, 'We're afraid of giving these larger contracts to a DBE firm.'" [#58]

The Pacific Islander/Asian Pacific American representative of an SBE- and DBE-certified professional services company stated, "If you don't have Caltrans prior experience or project participation, you're not likely to get chosen." [#63]

Multiple interviewees noted that the length of time a solicitation is advertised is often too short and is a barrier to submitting bids or proposals on Caltrans' work.

The Pacific Islander/Asian Pacific American representative of an SBE- and DBE-certified professional services company stated, "We often don't have a lot of time to turn around a proposal. ... A lot of firms would be able to turn around a better quality document if we had a little bit more time." [#63]

A participant in a public meeting stated, "The districts generally vary in their requirements, but typically they require the prime proposal in a very short amount of time, two to three days on average. So that means the subs and vendors that we reach out to get even less time to prepare their bids. Most of the DBEs are very small businesses and are not only running their office but also running the field work, so they're not sitting at a desk able to write a proposal within a day's time. So many times the DBEs end up backing out of the opportunity due to the very aggressive proposal schedule." [#PT9]

For businesses that perform architectural or engineering services, Caltrans often requires audited financials, which are costly and often a barrier for small businesses to complete. In addition, the use of pre-established rates, such as Federal Acquisition Regulation (FAR) Rates, often pose a barrier to small businesses.

A representative of an LBE-certified construction company stated, "[Caltrans] had a rate where I would be paying my employees and it was a time and a material. And so, the markup they were allowing on my employees was ... 3% to 5% or something like that. ... It just didn't seem feasible for me to go through the whole exercise, go work with a new agency, and then not be profitable." [#11]

A representative of a majority-owned, DVBE- and SLBE-certified professional services company stated, "If we are submitting a rate for say, a licensed land surveyor, they want proof that that is what we pay the person. So, we have to pull pay stubs and show them how we calculated the rate, show them our overhead costs, and all of our financials and it's a very burdensome and long process to get rates approved. ... They [also] ask for audited financials and that's very expensive to have done." [#38]

The Hispanic American representative of a professional services company stated, "Caltrans only allows you to make 10% profit and they change your rates and have whole different requirements for submitting projects to them and how you come up with the fee." [#55]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "I think some of the barriers are also with how Caltrans does contracting. They don't allow for the level of compensation that smaller businesses need to be viable. ... Because Caltrans has very specific reimbursement rates, we're not always able to recoup that." [#58]

A survey respondent stated, "Caltrans contracts are challenging because we're private and don't have quarterly statements. The limitations that Caltrans puts on what can be considered overhead and whatnot further puts pressure on us to bid on a project." [#AV300]

Many public sector agencies, including Caltrans, offer prequalification to businesses that perform certain types of work to ensure that they have adequate capacity to bid on and perform work. For other types of work, businesses must provide evidence of past work with public agencies including Caltrans to be

considered responsive. Businesses without past Caltrans experience note this presents a barrier to entry, as without past experience they cannot bid on work and be considered responsive.

The Pacific Islander/Asian Pacific American representative of an SBE- and DBE-certified professional services company stated, "I would like to see a little bit of relaxation on personnel requirements. Maybe instead of a P/E [professional engineering] license, show 20 years of experience. ... Oftentimes there are requirements that businesses have a minimum of three years of experience in similar or related project work and, you know, a lot of times when firms are just starting out, they may have the staff that has that experience. But as a business, they don't have that." [#63]

A survey respondent stated, "A lot of the bid packages for public works, they want you to put down your list of projects you've done for your company. And I have a lot of experience, but not a lot of public-works experience for my own business." [#AV24]

c. Project teams. Interviewees discussed how they find potential project team members, noting that past relationships are essential to establishing trust. Without trust, many businesses are wary to partner with businesses they have not worked with in the past, as their reputation can be affected by poor performance.

A representative of majority-owned professional services company stated, "It is your name and reputation on the line. It behooves you to have DBEs you know and can trust and can rely on that have the same attitude that we do about providing quality." [#3]

A representative of a DBE-, WBE-, SBE-, Micro SBE-, and SB-PW-certified construction company stated, "We work with the people we work with, we win together or we don't. But they hang with us, and we hang with them. They always get first choice." [#13]

The owner of a majority-owned construction company stated, "If we land on somebody, we watch them and talk to them and make sure they understand what our expectations are from them because it all comes back to reflect on us." [#25]

A representative of a Hispanic American-owned, MBE-, DBE-, and SBE-certified construction company stated, "We've been working for the same companies for more than 10 years." [#40]

A representative of a non-Hispanic White woman-owned construction company stated, "The [project team's] reliability, that's something that reflects on you as a company, so you've got to know that you've got someone who's reliable, they're going to be there when they say they are." [#54]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "With regard to subcontractors, I have long-term relationships with all my subcontractor." [#58]

Other businesses rely on networking to meet potential project partners.

A representative of an LBE-certified construction company stated, "When I was first trying to get in the door with a prime, I looked at all the primes on the bidders' list and I would make a phone call, introduce myself to the person who was preparing the bidding, I'd try to

introduce myself. Sometimes the phone call didn't go anywhere. And so, what I would do is I would send an email." [#11]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "I belong to a lot of trade associations so that when they have a conference, I can be an exhibitor or I can attend and you know, share my business card with people or I can go to meetings and events they have and network with the contractors who are at those events." [#20]

The co-owner of an Asian Pacific American-owned, DBE-, MBE-, and 8(a)-certified construction company stated, "We'll have those ... I don't know if you'd call it a training/networking type event, but we're trying to connect the dots between opportunities with ourselves or other firms and the clients directly, if it's applicable." [#35]

A participant in a public meeting stated, "It's a lot of networking. You got to meet them, lunch, dinner, happy hour, their open house. I mean, a lot of networking." [#PT10]

d. Doing Caltrans work. Business owners shared that Caltrans has had significant staff turnover and retirement rates, and its new employees are still learning about Caltrans' rules and regulations.

The owner of a WBE-, DBE-, SBE-, and WOSB-certified construction company stated, "On the really big jobs, I think Caltrans has really good people, but on the minor A and the minor B [contracts], they seem to put people on who are either trainees or not very good. And the project management is terrible. It is exacerbated by the fact that people who work for Caltrans get a lot of holidays and if the person at Caltrans is on holiday, the whole thing comes to a standstill, [you] can't get work approved, can't get paid. It's really bad. I would say in general, the project management at Caltrans, I would put them all on performance improvement plans." [#8]

A representative of a majority-owned construction business stated, "Caltrans does a very professional job of administering their contracts, however, some of the Caltrans personnel are maybe new and less experienced, and sometimes that can be frustrating when they're trying to administer a project, and they don't really know their own rules." [#14]

The non-Hispanic White owner of a WBE-, Micro SBE-, and DBE-certified professional services company stated, "Caltrans has owed me a \$10,000 invoice for over a year and a half and ... because they've had internal turnover and it keeps getting passed off and then each new person is like, 'We'll have to look into this.'" [#26]

A survey respondent stated, "Ninety percent of the work goes smooth, unless there is a new person at the agency." [#AV754]

A participant in a focus group stated, "Lately the State has, and they know it, has been hiring people with really out of the not much experience, they're putting them out there. The guy doesn't know what he's doing. By the time he figures out what's right from wrong, you just sit there and wait for your money." [#FG3]

5. Remedial programs. As a recipient of United States Department of Transportation funds, Caltrans is required to implement the Federal Disadvantaged Business Enterprise (DBE) Program. As part of this

program, Caltrans implements a number of measures that aim to improve the participation of POC- and woman-owned businesses in its contracting.

a. Certification process. One measure Caltrans implements is certifying businesses as DBEs. Some business owners discussed the difficulties of navigating the certification process and suggested providing individualized support to businesses to complete their certification.

A representative of a Hispanic American-owned, MBE-, DBE-, and SBE-certified construction company stated, "Maybe instead of asking for a lot of paperwork, I know sometimes they don't have the people, but they can ask for less forms or paperwork and just do one visit to the business or something like that. Or even a Zoom meeting where they can talk to the owner and ask the owner everything that they want instead of, like I said, I remember my first time and it was a folder that was really thick of the stuff that I had to send. So, I think it will invite more businesses if they ask for less paperwork." [#40]

The Hispanic American owner of a construction business stated, "I understand that all the paperwork is necessary, but you need to put a one-on-one coach to walk you through the whole process from start to finish. ... That's the kind of education that I need from Caltrans to have somebody sit down with me and say, 'Hey, this is how you fill this out, make sure everything's the same. If you put this information here, then it has to match over here otherwise it's going to bring up red flags, and then by the time you clarify and do all this, it delays the process.'" [#65]

For prime contractors utilizing certified businesses as part of meeting contract-specific goals, there is a requirement to ensure that the DBE is providing a commercially useful function (CUF) on the project. Prime contractors consider this determination to be a heavy burden and one that they cannot easily assess when bidding on projects. Some business owners and representatives suggested that there be a more detailed CUF review by the California Unified Certification Program during the certification process to reduce the burden on prime contractors.

A representative of a majority-owned construction business stated, "In terms of maybe some prequalifications on the DBE side of it is maybe some prequalifications of the DBEs themselves that are in the database to ensure that they all provide commercially useful functions. I think that would be a good benefit for everybody involved." [#14]

A participant in a focus group stated, "The state threw on the prime contractor the responsibility of assuring that the DBE subcontractor, or any entity, is performing a commercially useful function. Another one of those, okay, 'We're not going to deal with this. We're going to make it now the prime contractor's issue.' If you look at the form that they want you to fill and the amount of work that you have to do to ensure that this guy is doing a commercially useful function, you need to hire a few people in your office to do this. Why is the state shying away from their responsibility of performing this good faith effort, since they are the ones, or that entity that certified them, should be doing this?" [#FG3]

A participant in a focus group stated, "We need to make sure that the names on the list are, again I'm using this a little bit out of the context we're used to thinking of, but they're commercially useful, they can actually bid the work, show up, perform. Cleaning up their database and making sure that these companies are ready to go, and they get on the list and get counted towards available participation, determine a goal, I think that would go a

long ways in helping the program from a contractor perspective because right now ... we're wading through a lot of baloney to find the actual useful stuff, and that's a lot of wasted energy and effort and creates all these other problems we talked about." [#FG4]

A participant in a public meeting stated, "A very detailed pre-certification CUF analysis by Caltrans would greatly improve the DBEs' capability/ capacity to perform work - so they don't take on too much work." [#PT3]

b. Benefits and disadvantages to certification. Businesses that have become certified as DBEs note that the process provides more opportunities to join project teams and greater visibility to potential project partners.

The Hispanic American owner of a DBE-certified construction company stated, "I think the advantage is that the larger contractors have to look at those bids a little more carefully and try to include us or incorporate us into those projects, so I think they're very beneficial." [#12]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "I don't think I've ever gotten a project because of the certification, but what I have gotten is I have gotten an opportunity to bid that I would not otherwise have had if nobody had done the outreach." [#20]

The Black American owner of an SB- and Micro SB-certified professional services company stated, "I think advantages because these bigger companies are looking for whatever percentage of their contracts [need to be performed by DBEs]. And I've been getting some hits over the years from that." [#24]

The co-owner of an Asian Pacific American-owned, DBE-, MBE-, and 8(a)-certified construction company stated, "I think it gives a unique business development opportunity, but you're still competing with a lot of people. You are not special by any means, but it's a smaller crowd than just coming in through the main front door, if you will, of a business." [#35]

A participant in a public meeting stated, "I do think that without it, we would not receive any Caltrans work when it's directly with Caltrans. Now, with the local agencies, that process, I think more often we are reached out to by primes that want to team on these smaller-type projects, but on these big Caltrans, huge, multi-million-dollar contracts, this process does keep the small business involved and I do really appreciate that." [#PT7]

Although businesses described benefits to becoming a certified DBE, some business owners mentioned that the certification can also serve as a way to "other" their business, reducing their business' reputation to their certification status rather than the skills and benefits the business could provide.

The Hispanic American woman owner of a professional services company stated, "I kind of proceed like my gender doesn't matter, my Hispanic background doesn't matter." [#47]

A representative of a non-Hispanic White woman-owned construction company stated, "It's like a sense of pride. I wanted to get the jobs because I qualified for the jobs or we were proficient enough to get the job. I didn't want to have some kind of an advantage over someone else. I just didn't think it was fair." [#54]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "I have this DBE stigma, which I've learned over the years, ends up being a stigma, I'm not getting the work." [#58]

The Asian Pacific American representative of an SBE- and DBE-certified professional services company stated, "If you are certified, then there's kind of a stigma like, well, you know, they may be too small to handle the job." [#63]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "They see you coming the door as a Black man. First thing they ask you, 'Are you certified?' You come door as a White man, they say, 'What you want to sell us?' It's a whole mindset. We got to have a change to the mindset, because I don't see the advantage of being certified anymore." [#64]

c. Implementation of the Federal DBE Program. Caltrans currently uses race- and gender-conscious measures as part of its implementation of the Federal DBE Program. The measures Caltrans uses includes setting contract-specific goals on various contracts and procurements to meet the agency's overall triennial DBE goal for the use of DBEs in its contracts and procurements.

i. Contract-specific goals. Certified businesses reported various barriers when trying to participate in contracts and procurements that have DBE goals, including issues with the amount of time provided to respond to outreach from prime contractors to participate in projects as well as the "shotgun" approach to outreach that many prime contractors utilize, sending messages to all DBEs regardless of whether the scope of work is appropriate.

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "Prime contractors on Caltrans projects, particularly those that have federal funding in them, are required to do outreach to the DBE businesses and most of the time when I get solicitations, they are like a routine mass email, and they give me an extremely short period of time to respond. So that maybe the proposal hit the street on the 1st of May, it's now the 24th of June. I'm getting a solicitation from a prime contractor. 'Ohh, we're looking for DBE's and oh, by the way, the bid is due in five days.' That is not, in my opinion, a good faith effort on the part of the contractor to try to include me." [#20]

A representative of a majority-owned, DVBE- and SLBE-certified professional services company stated, "I've received emails myself from big companies and then it's an opportunity that's not suitable, so we just ignore it or don't reply and then they call me, 'Oh, can you reply to our email? It's part of our good faith efforts.' So just them emailing somebody and then me saying, 'That's not suitable for us' qualifies as a good faith effort. But really, we couldn't have been on their team anyway." [#38]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "When contractors reach out to us for bids, you might have a large contractor ... and they have a minimum percentage of a DBE goal the contract has to meet. They will reach out to me even though the contract might have nothing to do with what I provide. They might just be asking for concrete and rebar, and they want me to acknowledge receipt of the solicitation so that they can meet their goals to Caltrans and other agencies to say, 'Yes, we've tried to reach out to these firms,' even though they're not necessarily targeted." [#58]

Other interviewees mentioned that while they may be successful in being listed on a bid as a DBE to meet a goal, there are many instances where no work is actually awarded to those businesses. This may happen due to changes in the scope of work, or because the prime contractor listed multiple DBEs on the bid to meet the goal but does not select all DBEs to ultimately perform the work.

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "It still occurs that there are contractors who list DBE participation and then either do not contact the particular subcontractor to tell them they've been listed on the project and they're gonna be doing work or they will just go and substitute that contractor out and never say anything to anybody." [#20]

A representative of a majority-owned, DVBE- and SLBE-certified professional services company stated, "When it's not mandatory is people... [will propose to] have a goal of 20% of the work to be done by a disabled veteran, while they add us to their team so they can show on their proposal, 'Yeah, we've got a disabled veteran on our team.' But then they never give us any work." [#38]

The non-Hispanic White woman owner of a WBE-, SBE-, DBE-certified professional services company stated, "There a strategy that a lot of the larger firms use ... [where they] put a whole list of DBE contractors on ... part of their team but they really intend to perform a lot of the services themselves ... [or] they give all of the DBE work to [one or two of the DBEs that they had included on their team]." [#44]

A participant in a public meeting stated, "[The] PM [project manager] is from Caltrans. That's the person supposed to kind of keep track of everything. But 80%, 90% of the PMs don't track that because it's a lot of work, right? They got to make sure the prime hires DBEs, the small business[es] ... It's a lot of tracking for them. They don't really get paid for doing any extra work, so they don't do it." [#PT10]

Some prime contractors mentioned that the goal set for some projects is incongruent with the available scope of work to be subcontracted, the geography in which the work is to be completed, or the local availability as compared to the availability at the district level. Interviewees suggested that providing greater clarity on the goal-setting process would help prime contractors understand how to better meet the goals.

The non-Hispanic White woman co-owner of a WBE- and Micro SBE-certified professional services company stated, "I think when they do the good faith deal, it has to have a geographic boundary on the ground. It has to be so many miles from the site. ... Paying to bring people up from the Bay Area or Sacramento to Redding, putting them in hotels to go out and do biological surveys to me seems really stupid when I can do it for half the cost." [#50]

A participant in a focus group stated, "Caltrans could be more transparent in how they're developing these goals on specific projects." [#FG4]

A participant in a public meeting stated, "Our [a local subrecipient of Caltrans' funds] calculation was 9% based on what elements of the construction management could be sent to somebody from outside, but our initial OCR [Office of Civil Rights] calculation is 22%. It's as if our number was completely disregarded, and it does appear arbitrary and not based

on the specifics of the job. It just seems at this point that the state is basically just assigning 20% to 22% on everything without looking at the specifics of the job." [#PT9]

A representative of a trade association stated, "Based on information provided by Caltrans and feedback from the prime contractor community that the number of actual interested DBE subcontractors performing related work in particular roles specified types of work for Caltrans is far lower in practice than which has been identified in prior studies; and there is a lack of available DBE subcontractors bidding on Caltrans work in locations where work is taking place." [#WT10]

When prime contractors do meet the contract's DBE goals, the availability of the DBE subcontractors to perform the work proposed can change based on the timing of the contract award. Alternatively, some subcontractors may overreport their capacity to win work.

A representative of majority-owned professional services company stated, "The problem is, as the goals have increased, we've had to stretch the use to things we'd prefer not to use, such as a high volume of trucking. Because the problem with trucking is they might have 100 trucks sitting in the yard today, but in two months from now, in the summer season, every contractor needs those 100 trucks on the same jobs." [#1]

A representative of a majority-owned construction company stated, "Caltrans needs to track their DBEs and what they're performing and what has been claimed on them. ... A lot of these guys are being claimed for a lot of work that they can't perform even though they say they can." [#18]

A participant in a focus group stated, "In the past a lot of the DBE goal was fulfilled with trucking, hiring DBE truck brokers and that sort of thing. Then along comes AB 5, which is pretty well decimating the broker trucker industry. They're listing trucking brokers who are listing trucking companies. And when it comes time to do the work, they can't show up. From what I understand, that's happening more and more and more." [#FG3]

A participant in a focus group stated, "Now, what's happening lately is, due to these erroneous plans that we've been getting and they've been increasing by the day, the work gets postponed. ... [And] what's happening to these truckers [is that] he bids the job thinking, 'I'm going to work between 2020 and 2022.' And 2022 becomes 2025, where in 2023 he had another contract to go to. This is the problem also with trucking, is these truckers are bidding these jobs thinking that it's going to last for two years. Not really. The job gets delayed and now it's four years and he still has to supply the trucks." [#FG3]

Prime contractors developing project teams note that there is a concentration of certified DBEs in some industries, such as trucking.

The Hispanic American owner of an MBE-, DBE-, SBE-, and LSBE-certified construction company stated, "One of the games that they also play is that they hide it all under trucking. There's a couple of them, but they hide it all under trucking. And the trucking rules say that for every truck you lease, you have to own one. ... I think it should be capped and they just can't take credit for the whole damn thing. Because they try to just put all the trucking under DBE and then you don't get an operator, you don't get a laborer, you don't

get a painter, you don't get a carpenter. You don't get those skill sets if you just bundle it all under trucking." [#49]

A participant in a focus group stated, "Figuring out which scopes of work there's actually a need for more DBEs in. If we have ... 50 more DBE truckers, it is not going to help the program. I'm not saying that we can't have 50 more DBE truckers, but that's not going to help us reach higher goals. But looking at the scopes of work that don't typically get DBE coverage and working with businesses or business owners to have companies and construction firms that offer those types of services, that will actually help the program." [#FG4]

A participant in a public meeting stated, "When the perception is that you must make that goal, I know that there are contractors out there, and I've been the victim of this happening twice to me where a goal is too high, the availability out there for DBE subcontractors cannot make that goal. We pick every available DBE that we can, yet we still fall short of the goal. The workaround that I've been a victim of is, our competitors overly inflating their commitment to trucking in order to make the goal. There's one example where our total trucking amount that we had entirely for the job, it was 50% of what our competitor did and committed to a DBE trucker. We know that there's not that much trucking on that job, period. It was a simple job, can't happen. Yet, that contractor was awarded the job. They were not the low bidder; we were the low bidder." [#PT5]

Some prime contractors said the pressures of meeting the contract's DBE goal can lead to higher overall bids and inflated project costs, as certified businesses that are already very busy or have limited competition can submit bids that are significantly higher than their uncertified counterparts.

A participant in a focus group stated, "I think 15% is a reasonable goal that we could probably attain with adding minimal money. When you go from 15% to 22% or 23%, then you either don't make the goal and you're relying on your good faith effort or you're adding dollars to the bid or the job scope as such where it was a huge certain package and you got lucky and that DBE came in and got the job." [#FG4]

A participant in a focus group stated, "We're paying more for almost all this DBE participation than we could get it for otherwise." [#FG4]

A representative of a majority-owned professional services company stated, "Another thing we noticed is that DBE goals on construction contracts have been increasing but DBE firms willing to do the work and travel for it is a different story. We have seen contractors hit goals by using firms across the state but [it] was causing their bids to be higher because of the travel costs associated with bringing in DBE subs." [#WT3]

ii. Good faith efforts (GFEs). When prime contractors cannot meet a goal on a project, they can instead submit GFE documentation to show the steps they took to try to meet the contract's DBE goal. Both prime contractors and the local agencies that review GFEs discussed the lack of clarity on what constitutes a good faith effort and the difficulties that ambiguity poses.

A representative of a majority-owned construction business stated, "Sometimes there's challenges when there is a DBE goal that needs to be achieved, and sometimes the goal might be higher than what the market can provide. And if you don't make the goal, then

you're required to provide a good faith effort showing everything you did to try to obtain that goal. The issue there is that the review of the good faith effort is subjective and there's no clear-cut rule book provided by Caltrans on what constitutes a good faith effort. So, a lot of it is trial by error and again, whoever is doing the review has a lot of latitude on whether or not they think your effort is good enough or not." [#14]

A representative of a majority-owned construction company stated, "The good faith effort process is fairly meticulous. It takes a long time and a lot of effort, and we have submitted based on good faith efforts and been rejected and accepted. It's not very clearly defined on what exactly is a good faith effort that's acceptable. We've kind of been told different things." [#18]

A participant in a public meeting stated, "Clarifying what constitutes good faith because the very first group that has to give an assessment of good faith effort is the jurisdiction itself. So, we are turning in our paperwork saying it's good faith, and then we have the state come back and tell us, 'Oh, no. That's not good faith.' It would be really good if we had some quantifiable mechanism for being able to determine what good faith is, so we can actually look at it from an objective standpoint and say whether or not that's true." [#PT9]

A participant in a public meeting stated, "The bigger issue with Caltrans is that the review of good faith efforts is completely subjective to the reviewer." [#PT7]

A representative of a trade association stated, "The good faith effort evaluation process is not only difficult for the contractor to understand, but it is also difficult for Caltrans staff to perform." [#WT12]

As part of the GFE process, prime contractors are required to conduct outreach with certified businesses to assess their interest and availability to perform work on the specified project. Through the outreach process, prime contractors interviewed for the disparity study shared that they find many businesses in the DBE directory that are either no longer interested in doing work with Caltrans or with that prime contractor in particular, reducing the overall interest in doing work on that project.

A participant in a focus group stated, "When you look at some of these DBEs, they've opted out of doing Caltrans work and they don't want anything to do with it, and yet they're still part of the database that the good faith effort that we have to do requires us to contact them. They're frustrated because they keep getting calls and emails and pursued. And then the other contractors that do Caltrans work, there's not enough of them, so they're inundated. And how do they give proposals that are meaningful and reliable for all these bids, for all this work?" [#FG2]

A participant in a focus group stated, "We've had examples where we call these folks because they're on the DBE [list] and they pick up the phone and say, 'Stop calling me. I don't want to bid your projects.' And it's like, 'I'm sorry, we have to do this. This is part of our good faith effort. If you don't want to be on the list, please take yourself off.'" [#FG3]

A participant in a focus group stated, "We do a search when we do these queries and outreach and 1,300 to 1,500 people pop up, but we only get the same 50 guys probably at most that bid on these projects. ... A lot of them call and say, 'Get me off your list.' I think the system is flawed in how they're filed and categorized and what they think that's actually

out there. I would like to say, 'All right, new ones, you got a one-year grace period. We'll count those. You've signed up, you're going to get a shot.'" [#FG4]

A representative of a majority-owned construction company stated, "The evaluation states that the engineer was able to identify 302 certified DBE firms and points to this as a reason for determination that [the bidder] did not make a good faith effort. The engineer elected not to filter their search criteria by the specific county in which the project is located. This resulted in a number 'potential' solicitations to DBE subs and suppliers who may not be willing to travel to this specific county. The engineer filtered solely by District 3, and not Nevada County. When this filter is added, the list goes from 302 to 197. Per the regulation, [the bidder] is to take necessary and reasonable steps. It is not necessary nor reasonable to solicit DBE firms that have already submitted documentation that they are not willing to work in Nevada County, which is the county of this contract." [#WT9]

6. Discrimination. POC- and woman-owned businesses shared their experiences with discrimination in the marketplace.

a. Financing. Interviewees noted that there are barriers obtaining financing or bonds, sharing the sense that there are different requirements or expectations from financial institutions when working with these businesses.

The Palestinian American owner of an SBE-certified construction business stated, "I do have horrible experiences since I started [my] business I applied for line of credit four times. ... If you're a person of color applying for a loan, they need the information of your unborn child. But if you are a White person, then it's like, 'Yeah, you're okay,' then just like the process is much easier." [#16]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "When I went to a bank and asked for a \$5,000 loan of a line of credit, they told me that I had to bring my husband in to sign and I reminded them that my husband had no ownership in my business. ... The bank demanded that he come in and sign on the loan documents. ... After 1989[’s Surety Access to Bonding Act], we still face discrimination and I’ve seen bonding companies look at two different companies ... one was owned by a man, one was owned by the woman, the woman was told no. The man was told yes, and when we went back to ask for an explanation, we got some kind of explanation, which I thought was totally invalid. ... Discrimination in bonding is not as bad as it was prior to 1989, but I believe it is still more difficult for a woman-owned business company to get bonding." [#20]

The non-Hispanic White owner of a WBE-, Micro SBE-, and DBE-certified professional services company stated, "You’ve got dozens of studies about racial disparity in the in the offerings of loans or the granting of loans, or, you know, for anything from houses to business startups." [#26]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "I think Black folks just can't get lines of credit. It's a mess. I mean the banks just don't want to lend to small businesses." [#64]

b. Resistance to doing work with POCs or women. Some business owners discussed the reluctance of potential employees and clients to work with POCs or women.

The non-Hispanic White woman co-owner of a Native American-owned, DBE-certified professional services company stated, "I think just in general, just getting to that education level that you need to be a civil engineer, yeah there's definitely some challenges in getting to that level for those types of groups of people. My daughter is trying to become a civil engineer and I also have a female civil engineer that works for me and they've both expressed a lot of pushback to women in the field." [#36]

The Palestinian American owner of an SBE-certified construction business stated, "I came from a Muslim background, and we all know that the United States has an Islamophobia issue ... for whatever political religious reason out there, and they don't give us a chance. ... And I've seen it among most of my employees are Hispanic, I have been Black as well, and I've seen it. The minute that a person of color shows up then the trust changes." [#16]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "I've had male individuals interview for me and then say they didn't wanna work for a woman. ... I've heard that from other women-owned construction companies as well. ... 'Construction is a man's world and I don't wanna work for a woman.'" [#20]

The Hispanic American owner of a construction company stated, "So I'm driving up to the mountains, my wife is with me, and I have a baseball coach assistant. We coached little league and stuff, so he was with me coaching little league, and I asked him, 'Are you looking for a second job maybe?' And he says, 'What do you mean?' I said, 'I'd like to hire you.' He was Caucasian. And I said, 'And I want you to do two things for me. One, I want you to go, I want to introduce you to the clients and stuff and new people that are looking for business from [us], I would like you to go with me to those meetings and I would like you to go to bid openings with me.' So when I started doing that, I had what I needed to get in the door. There was a Caucasian, he was dressed in a polo shirt, nice shirt, slacks, whatever, and I was the guy that was working out in the field. So, in retrospect, you look at it like he was the boss and I was the worker. And that's what it took, believe it or not, to have a Caucasian to go knock on the door and they would open. Because when I tried to do it as a Hispanic, I couldn't even get close. Could not even get close to the door." [#41]

The non-Hispanic White woman owner of a WBE-, SBE-, DBE-certified professional services company stated, "The representative from the company was coming to San Diego specifically for this big meeting and it was the meeting was just with the primes. But he asked me to attend with him. And so most of the people, almost all the people around the table were primes, and the contracting person [from the San Diego Association of Governments] started out by apologizing to them for the rigors of having to ... have disadvantaged businesses included as part of their teams." [#44]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "The problem is, being a minority firm, it's hard to hire non-minority people to work for you. I've had a couple work for me before. The most part when they come in to interview, [they] see who I am, they never come back. So you are relegated to just getting mostly

people of your same background and same race. I've tried hard to hire other people, but it just didn't work." [#64]

Stereotypical attitudes about the role a POC or a woman could have in a company persist in California, with multiple interviewees sharing their experiences with such beliefs.

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "I've gone to construction meetings, and I was the only woman in the room. And several of the people in the room assumed I was the secretary or asked me why I was there." [#20]

The non-Hispanic White woman owner of a DBE- and SB-certified professional services company stated, "I've been on project sites, and I've watched that. I've watched where a prime will go and go and talk to an assistant superintendent who's a guy rather than talk to the business owner who's a woman." [#20]

The non-Hispanic White owner of a WBE-, Micro SBE-, and DBE-certified professional services company stated, "It's a very long, you know, several 100 years of socialized, institutionalized racism and gender disparity that hinder people from starting businesses in general." [#26]

The co-owner of an Asian Pacific American-owned, DBE-, MBE-, and 8(a)-certified construction company stated, "We've had a senior leadership role who is a senior project manager ... she was a female in a leadership role for us and she was running the project, she was one of our sharpest employees and she would've kept getting cut out of email chains, where it's so explicit, comically bad, where you're like, 'How?' You have to be intentionally removing this woman from the thread every time you reply, ... Or skipped over when handing out business cards where it's just like a slap in the face." [#35]

The owner of a WBE-certified construction company stated, "We told everyone that the business was Native American-owned. We didn't say it was woman-owned. And he had long hair because he's Native American, and nobody would hire him because he had long hair. So he cut his hair like a typical White American. Cut it real short. And we started getting work. So that was the only really right away, right away he started getting work or we started getting work. So that was the initial prejudice." [#43]

Some interviewees shared their experiences with unfavorable work environments, discussing the chilling effect such environments have on the participation of POCs and women and how it can force businesses to make tactical decisions about who to send to job sites or regions in which to do work to protect their employees.

The owner of a WBE-, DBE-, SBE-, and WOSB-certified construction company stated, "I have some African-American employees, and we don't do business in the Central Valley anymore because they experience racism down there. ... We don't bid down there anymore." [#8]

The Hispanic American woman owner of a professional services company stated, "In school, it was 50% women in my class and 50% men, and so I really did not think there was a gender bias at all. Since then, I think I'm the only, maybe one other one is doing it, is still

doing architecture. And what tends to happen is I think that there's this intimidation that happens in the real world, especially when you're doing stuff that's getting built, so contractor world. In the construction world, there is so much intimidation for women, and they kind of cower out of it and then they end up in interior design." [#47]

The non-Hispanic White woman co-owner of a WBE- and Micro SBE-certified professional services company stated, "If I have a 65-year-old rancher that I'm helping with a water rights problem or an engineering problem, I am not going to have a transgender engineer go talk to him about what his rights are." [#50]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "I left the private consulting firm because the CFO of the firm would come into my office and start talking about political issues that relate to the countries of origin of my ethnic background. Now, I was born and raised here. I have nothing to do with ISIS or Al-Qaeda or whatever, and this gentleman found that it was okay to come in and only talk about these issues as a way to relate to me. And it inhibits you from moving up in that system. It inhibits you from feeling comfortable, and in an era of psychological safety, feeling like you have that in the workplace, in an era of diversity, equity, and inclusion, you're definitely not included." [#58]

The Hispanic American owner of a construction business stated, "My supervisor was my brother at the time, and we always treated everybody the same with respect and that's how our parents raised us. So these guys would, all of a sudden, they see us more American than the guys doing the hard labor, even though we do have a tan, but I guess they would start feeling a little bit more comfortable and start letting [us into] their good ol' boy club, and making comments and this and that, we were like, 'Oh man, hey, we would've never thought that about you until you started getting relaxed and more familiar with us and all of a sudden you start making some of these comments.' ... One of the other foremen was in the meeting, ... and he said, 'Yeah, he [the vice president of my former employer] was making a comment saying ... 'Yeah, there's a difference between Asians and Mexicans, like a Mexican you can treat him like crap, whatever, and they'll put up with it. An Asian, they won't put up with that.' I was like, 'Okay.' And this guy was going, 'Okay, this is 2023.' But that guy, he was just one of the good ol' boys from back in the day. ... And what are you going to do when he's the vice president and he is in charge of construction? That's one of the reasons why I no longer work there." [#65]

c. Good ol' boy network. The most prevalent issue discussed related to discrimination is the persistence of the "good ol' boy club" or other closed networks. While some noted that this culture may not be racist in nature, the results of such networks is a significant power imbalance between those in and out of the "club."

The Hispanic American owner of a DBE-certified construction company stated, "I think there's good ol' boy companies that are in and that get the sweetheart deals, and they get the good projects, and the rest of us just got to sit out and watch." [#12]

The Black American owner of an MBE-certified professional services company stated, "Construction does have a good ol' boy [club], because I don't know anybody who hasn't worked for several different companies. And construction's heavily dependent upon relationships with different companies." [#17]

The Black American owner of a DBE-, MBE-, and SBE-certified professional services company stated, "When you talk about that race thing, you know, sometimes that's kind of very difficult to pin down because it's more of an old boy network thing, which just happens to coincide with race." [#28]

The co-owner of a WBE- and SBE-certified construction company stated, "It's a good ol' boy industry and if they don't know you and you're not a family member or referred to you by a family member or if they haven't seen you before and like you, then they're not going to bring you in. It's going to be three months more work for the people who are family, are referred by family." [#37]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "They keep using the same people over and over again. And if you're Black, stand back. If you're brown, hang around. If you're White, you are all right. That's just the way it works." [#64]

The Hispanic American owner of a construction business stated, "When I started as a concrete subcontractor, the reason I ended up getting my general builder's license, I had to do it as a necessity. I would go up to the existing contractors, general builders, and I wasn't part of the good ol' boys club, so they wouldn't even give me the time of day. I would stand there until they acknowledged me and hand them my business card and carry off conversations with other people, this and that in front of me. They're just pretty much ripping [up] my business card. I'm not part of the good ol' boys club. I understood that after several times it happened. I was like, 'Okay. If you're not going to let me bid at least on your project, then I have to take out the middleman and bid on the project that you're bidding on.' That's why I ended up getting my general builder's license so I can bid on the entire project and not have to worry about somebody not giving me the time of day, because I'm not part of the good ol' boys club." [#65]

Other business owners believe that Caltrans' employees and policies, consciously or not, support these networks and prevent new businesses from doing work with Caltrans.

The Palestinian American owner of an SBE-certified construction business stated, "San Diego is unique because what's going on within San Diego, we have a group of contractors that lives in the East County. And all these guys, the bunch of White boys, good ol' boys, and they have their own club, and their club is AGC. And AGC has almost full control of Caltrans in District 11. So, if they decide to go after any contractors, they will do that through Caltrans." [#16]

The South Asian/Middle Eastern American woman owner of an SBE- and DBE-certified professional services company stated, "Well, there's one group of employees. They started actually out at Caltrans District 7, and one went to work for Metro, one started a consulting firm, and one moved up the ranks at Caltrans. And the two that are part of the

agencies, they all agreed that they would contract with the buddy that went into the private firm." [#58]

The Black American owner of an ACDBE- and MBE-certified construction company stated, "It is just as hard now to try sell Caltrans product as it was in 1985, because people are habitual. They like doing what they did yesterday. Even though the rules say you should go out and get three bids. One of them should be a small business, one of them is sure be a DBE. The guys in the shops don't do that. They don't do it at all. And so, it's difficult to get into the system, because they are satisfied with who they're dealing with and they don't necessarily try to bring in new people. Just doesn't happen." [#64]

CHAPTER 6.

Availability Analysis

BBC Research & Consulting (BBC) analyzed the availability of person of color (POC)- and woman-owned businesses *ready, willing, and able* to perform work on the contracts and procurements the California Department of Transportation (Caltrans) awards in construction and professional services.¹ Chapter 6 describes the availability analysis in five parts:

- A. Purpose of the availability analysis;
- B. Available businesses;
- C. Availability database;
- D. Availability calculations; and
- E. Availability results.

Appendix E provides additional supporting information related to the availability analysis.

A. Purpose of the Availability Analysis

BBC examined the availability of POC- and woman-owned businesses for Caltrans prime contracts and subcontracts to use as benchmarks against which to compare the actual participation of those businesses in organization work (i.e., assessing *disparities*). Assessing disparities between participation and availability allowed the study team to determine whether certain business groups were *substantially underutilized* during the study period relative to their availability for Caltrans work, which is crucial in determining whether the use of *race- and gender-conscious* measures is appropriate and, if so, ensuring their use meets the *strict scrutiny* standard of constitutional review (for details, see Chapter 2). In addition, estimating availability is useful to Caltrans in setting overall aspirational goals for the participation of POC- and woman-owned businesses in the work they award as well as setting *contract-specific goals* for the participation of those businesses in their work, if Caltrans determines the use of such measures is appropriate.

B. Available Businesses

BBC's availability analysis focused on specific areas of work, or *subindustries*, associated with the contracts and procurements Caltrans awarded between January 1, 2020 through December 31, 2023 (*study period*), which served as a proxy for the work it might award in the future. We began the analysis by identifying the specific subindustries in which Caltrans spends the majority of its contracting dollars as well as the geographic area in which the majority of the businesses with which Caltrans spends those contract and procurement dollars are located (i.e., the *relevant geographic market area*, or *RGMA*). We then conducted extensive surveys with more than 1,300 businesses in the marketplace to develop a representative and unbiased database of potentially available businesses located in the RGMA that perform relevant types of work. The objective of the surveys was not to collect information from every

¹ "Woman-owned businesses" refers to white woman-owned businesses. Information and results for businesses owned by women of color are included along with those of businesses owned by men of color according to their corresponding racial/ethnic groups.

relevant business operating in the local marketplace, but rather to collect information from an unbiased subset of the relevant business population that appropriately represents the entire relevant business population. This approach allowed us to estimate the availability of POC- and woman-owned businesses for organization work in an accurate and statistically valid manner.

1. Overview of availability surveys. BBC worked with Davis Research to conduct telephone and online surveys with business owners and managers to identify local businesses potentially available for Caltrans prime contracts and subcontracts. We began the process by compiling a *phone book* of all types of businesses—regardless of ownership characteristics—that perform relevant work and are located within the RGMA, based primarily on information from Dun & Bradstreet (D&B) Marketplace. We compiled information about all business establishments D&B lists under 8-digit work specialization codes that were most related to the contracts and procurements Caltrans awarded during the study period. We obtained listings on 13,876 local businesses that perform work related to those work specializations. We did not have working phone numbers for 2,139 of those businesses, but we attempted availability surveys with the remaining 11,737 businesses.

2. Survey information. The study team conducted availability surveys with businesses listed in our phone book to collect various pieces of information about each business, including:

- Status as a private sector business (as opposed to a public agency or nonprofit organization);
- Status as a subsidiary or branch of another company;
- Primary lines of work;
- Interest in performing work for government organizations;
- Interest in performing work as a prime contractor or subcontractor;
- Largest prime contract or subcontract the business is able to perform;
- Whether the business is able to work or serve customers in California;
- Business size in terms of revenue and number of employees; and
- Race/ethnicity and gender of the owner(s).

C. Availability Database

After conducting availability surveys, BBC compiled an *availability database* that included information about businesses potentially available for relevant Caltrans contracts and procurements. We included businesses in the availability database if they reported possessing *all* the following characteristics:

- Being a private sector business;
- Having a location in the RGMA;
- Having bid on or performed construction and professional services prime contracts or subcontracts in the RGMA in the past five years;
- Primary lines of work being in industries and subindustries directly relevant to Caltrans contracts and procurements;

- Being able to perform work in California; and
- Being interested in working for government organizations.

Figure 6-1 presents the percentage of businesses in the availability database that were POC- or woman-owned. The database included information on 1,116 businesses potentially available for specific construction and professional services contracts and procurements Caltrans awards. As shown in Figure 6-1, of those businesses, 38.0 percent were POC- or woman-owned, which reflects a simple count of businesses with no analysis of their availability for specific Caltrans contracts or procurements. It represents only a first step toward analyzing the availability of POC- and woman-owned businesses for that work.

Figure 6-1.
Percent of businesses in the
availability database that were
POC- 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	Representation
White woman-owned	9.9 %
Asian Pacific American-owned	3.0 %
Black American-owned	2.8 %
Hispanic American-owned	19.4 %
Native American-owned	1.9 %
Subcontinent Asian American-owned	1.0 %
Total POC-owned	28.0 %
Total POC- and woman-owned	38.0 %

D. Availability Calculations

BBC weighted all survey data we collected to ensure that the representation of each group of POC- and woman-owned businesses in the availability database reflected its proportional representation in the California marketplace, according to ACS data. We applied the following survey weights to the survey data for each group:

- White woman-owned businesses: survey weight of 1.30;
- Asian American-owned businesses: survey weight of 3.23;
- Black American-owned businesses: survey weight of 1.09;
- Hispanic American-owned businesses: survey weight of 1.30;
- Native American-owned businesses: survey weight of 0.42; and
- Business owned by white men: survey weight of 0.75.

After weighting survey data, BBC used a *custom census* approach—which accounts for specific business, contract, and procurement characteristics such as work type, role, size, capacity, and interest—to estimate the availability of POC- and woman-owned businesses for Caltrans work. We analyzed information from the availability database to develop dollar-weighted estimates of the degree to which POC- and woman-owned businesses are ready, willing, and able to perform Caltrans work. Those estimates represent the percentage of contracting and procurement dollars one would expect Caltrans to award to POC- and woman-owned businesses based on their availability for the specific types and sizes of corresponding contracts and procurements.

BBC only considered a portion of the businesses in the availability database as potentially available for any given Caltrans prime contract or subcontract. We first identified the characteristics of each prime contract or subcontract (referred to generally as a *contract element*), including type of work, contract size, and contract role and then took the following steps to estimate availability of POC- and woman-owned businesses for each one:

1. We identified businesses in the availability database that reported they:
 - Are interested in performing construction and professional services work in that particular role for that type of work for government organizations;
 - Can perform work or serve customers in California; and
 - Have the ability to perform work of that size or larger.
2. We then counted the number of POC-owned businesses, woman-owned businesses, and businesses owned by White men in the availability database that met the criteria in step 1.
3. We translated the counts of businesses in step 2 into percentages.

We repeated the above steps for each contract element included in the disparity study, and then multiplied the percentages of businesses for each contract element by the dollars associated with it. Then for each organization, we added results across all contract elements and divided by the total dollars for all contract elements. The result was dollar-weighted estimates of the percent of relevant contract and procurement dollars one would expect Caltrans to award to POC- and woman-owned businesses based on their availability for specific types and sizes of that work. Figure 6-2 provides an example of how we calculated availability for a specific subcontract associated with a construction prime contract that Caltrans awarded during the study period.

BBC based availability calculations on the prime contracts and subcontracts Caltrans awarded between January 1, 2020 through December 31, 2023. A key assumption of the availability analysis is that the work the organizations awarded during the study period is representative of the work they will award in the future. If the types and sizes of the work Caltrans awards in the future differs substantially from the work awarded during the study period, then it should adjust availability estimates accordingly.

**Figure 6-2.
Example of calculating availability
for a Caltrans subcontract**

On a contract Caltrans awarded during the study period, the prime contractor awarded a subcontract worth \$45,000 for electrical work. To determine the overall availability of POC- and woman-owned businesses for the subcontract, BBC identified businesses in the availability database that:

- a. Indicated they performed electrical work;
- b. Reported being able to perform work of equal size or larger;
- c. Can perform work or serve customers in Caltrans' District 6; and
- d. Reported interest in working as a subcontractor on government contracts or procurements.

We found 40 businesses in the availability database that met those criteria, 26 of which were POC- or woman-owned. Thus, the availability of POC- and woman-owned businesses for the subcontract was 65.0 percent (i.e., $26/40 \times 100 = 65$).

E. Availability Results

BBC estimated the overall availability of POC- and woman-owned businesses for the construction and professional services work Caltrans awards. We also estimated the availability of those businesses for various subsets of contracts and procurements Caltrans awards. For each set of contracts and procurements, we present availability estimates for all POC- and woman-owned businesses considered together and separately for each relevant business group: White woman-owned businesses, Asian American-owned businesses, Black American-owned businesses, Hispanic American-owned businesses, and Native American-owned businesses.

1. Overall. Figure 6-3 presents dollar-weighted estimates of the overall availability of POC- and woman-owned businesses for Caltrans work. Overall, the availability of POC- and woman-owned businesses for that work is 32.8 percent, indicating that one might expect the organization to award approximately 32.8 percent of its contract and procurement dollars to POC- and woman-owned businesses based on their availability for that work. The business groups that exhibit the greatest availability for Caltrans work are Hispanic American-owned businesses (13.9%), woman-owned businesses (7.6%), and Asian Pacific American-owned businesses (5.7%).

Figure 6-3.
Availability estimates for Caltrans work

Notes:

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 E-1 in Appendix E.

Source:

BBC availability analysis.

Business group	Availability
White woman-owned	7.6 %
Asian Pacific American-owned	5.7 %
Black American-owned	2.5 %
Hispanic American-owned	13.9 %
Native American-owned	0.7 %
<u>Subcontinent Asian American-owned</u>	<u>2.4 %</u>
Total POC-owned	25.2 %
Total POC- and woman-owned	32.8 %

2. Industry. BBC also examined availability analysis results for Caltrans construction and professional services work to assess whether the availability of POC- and woman-owned businesses differed by industry. As shown in Figure 6-4, POC- and woman-owned businesses exhibit less availability for Caltrans' construction work (31.4%) than for the organization's professional services work (39.6%). That result may be due to the fact that the construction contracts and procurements Caltrans awards are larger, on average, than the professional services contracts and procurements the organization awards. Typically, there is an inverse relationship between work size and the availability of POC- and woman-owned businesses.

Figure 6-4.
Availability estimates for
Caltrans construction and
professional services work

Notes:

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

For more detail and results by group, see Figures E-4 and E-5 in Appendix E.

Source:

BBC availability analysis.

Business group	Industry	
	Construction	Professional services
White woman-owned	7.4 %	8.4 %
Asian Pacific American-owned	4.1 %	14.0 %
Black American-owned	2.2 %	4.2 %
Hispanic American-owned	15.1 %	8.6 %
Native American-owned	0.6 %	1.2 %
Subcontinent Asian American-owned	2.2 %	3.3 %
Total POC-owned	24.0 %	31.2 %
Total POC- and woman-owned	31.4 %	39.6 %

3. Contract role. Many POC- and woman-owned businesses are small businesses and often work as subcontractors, so it is instructive to examine availability estimates separately for Caltrans prime contracts and subcontracts. As shown in Figure 6-5, the availability of POC- and woman-owned businesses is in fact less for Caltrans prime contracts (24.3%) than for subcontracts (52.7%).

Figure 6-5.
Availability estimates for
Caltrans prime contracts and
subcontracts

Notes:

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

For more detail, see Figures E-6 and E-7 in Appendix E.

Source:

BBC availability analysis.

Business group	Role	
	Prime contracts	Subcontracts
White woman-owned	5.4 %	12.6 %
Asian Pacific American-owned	4.5 %	8.6 %
Black American-owned	2.5 %	2.4 %
Hispanic American-owned	9.2 %	25.1 %
Native American-owned	0.6 %	0.9 %
Subcontinent Asian American-owned	2.0 %	3.1 %
Total POC-owned	18.9 %	40.1 %
Total POC- and woman-owned	24.3 %	52.7 %

4. Funding. As part of its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program, Caltrans uses *race- and gender-conscious* DBE contract goals to encourage the participation of certified DBE subcontractors in various United States Department of Transportation (USDOT)-funded projects. In contrast, because of Proposition 209, Caltrans does not use contract goals or any other race- or gender-conscious measures to award state- or non USDOT-funded contracts or procurements. Thus, it is instructive to examine availability analysis results separately for Caltrans' USDOT-funded contracts and non USDOT-funded contracts.

BBC assessed differences in the availability of POC- and woman-owned businesses for contracts and procurements to which Caltrans' use of DBE contract goals could apply (*USDOT-funded projects*) and contracts and procurements to which DBE contract goals could not apply (*non USDOT-funded projects*). As shown in Figure 6-6, POC- and woman-owned businesses exhibit greater availability for non USDOT-funded projects (42.1%) than for USDOT-funded projects (30.0%). The groups that exhibit the greatest levels of availability for USDOT-funded projects are Hispanic American-owned businesses (12.1%), woman-owned businesses (7.3%), and Asian Pacific American-owned businesses (5.3%). The groups that exhibit the greatest levels of availability for non USDOT-funded projects are the same: Hispanic

American-owned businesses (20.2%), woman-owned businesses (8.5%), and Asian Pacific American-owned businesses (7.1%).

Figure 6-6.
Availability estimates for
Caltrans by funding source

Notes:

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

For more detail and results by group, see Figures E-10 and E-11 in Appendix E.

Source:

BBC availability analysis.

Business group	Funding	
	USDOT-funded	Non-USDOT-Funded
White woman-owned	7.3 %	8.5 %
Asian Pacific American-owned	5.3 %	7.1 %
Black American-owned	2.7 %	1.7 %
Hispanic American-owned	12.1 %	20.2 %
Native American-owned	0.6 %	0.9 %
Subcontinent Asian American-owned	2.0 %	3.8 %
Total POC-owned	22.7 %	33.6 %
Total POC- and woman-owned	30.0 %	42.1 %

CHAPTER 7.

Utilization Analysis

BBC Research & Consulting (BBC) measured the participation of person of color (POC)- and woman-owned businesses in the construction and professional services contracts and procurements the California Department of Transportation (Caltrans) awarded between January 1, 2020 through December 31, 2023 (*study period*).¹ We measured participation in terms of *utilization*—the percentage of contract and procurement dollars Caltrans awarded to those businesses during the study period. We measured the participation of POC- and woman-owned businesses in all relevant contracts and procurements Caltrans awarded during the study period as well as in various subsets of Caltrans projects. Chapter 7 presents the analysis in four parts:

- A. Purpose of the utilization analysis;
- B. Utilization analysis results; and
- C. Concentration of dollars.

A. Purpose of the Utilization Analysis

Calculating the percentage of dollars Caltrans awarded to POC- and woman-owned businesses during the study period is useful in determining whether certain business groups face barriers as it relates to Caltrans' contracting and procurement processes. Moreover, assessing whether any business groups are substantially underutilized relative to their availability for Caltrans work allows the agency to determine whether the use of *race- or gender-conscious measures* is appropriate and ensure that its use of such measures is tailored to those business groups for which compelling evidence of such barriers exist.

B. Utilization Analysis Results

BBC calculated the overall participation of POC- and woman-owned businesses in all Caltrans contracts and procurements combined. For POC- and woman-owned businesses, we also present utilization analysis results separately for various subsets of the projects Caltrans awarded during the study period, because that level of information is instructive to Caltrans as it makes decisions about its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program.

1. Overall. Figure 7-1 presents the overall participation of POC- and woman-owned businesses for Caltrans work. Overall, Caltrans awarded 24.7 percent of relevant contract and procurement dollars to all POC- and woman-owned businesses considered together. The groups that exhibited the greatest levels of participation in that work were Hispanic American-owned businesses (8.9%), woman-owned businesses (8.6%), and Asian Pacific American-owned businesses (4.1%).

¹ "Woman-owned businesses" refers to White woman-owned businesses. Information and results for businesses owned by women of color are included along with those of businesses owned by men of color according to their corresponding race/ethnic groups.

Figure 7-1.
Utilization analysis
results for Caltrans work

Notes:

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

For more detail, see Figure E-1 in Appendix E.

Source:

BBC utilization analysis.

Business group	Utilization
White woman-owned	8.6 %
Asian Pacific American-owned	4.1 %
Black American-owned	0.7 %
Hispanic American-owned	8.9 %
Native American-owned	1.6 %
Subcontinent Asian American-owned	0.7 %
Total POC-owned	16.0 %
Total POC- and woman-owned	24.7 %

2. Industry. BBC also examined the participation of POC- and woman-owned businesses separately for Caltrans' construction and professional services work to assess whether the participation of those businesses differed by industry. As shown in Figure 7-2, the participation of POC- and woman-owned businesses considered together was greater for Caltrans' professional services work (31.8%) than for the agency's construction work (23.2%). Participation for relevant business groups differed across industries:

- The groups that exhibited the greatest levels of participation in construction work were woman-owned businesses (9.4%), Hispanic American-owned businesses (8.7%), and Asian Pacific American-owned businesses (2.0%).
- The groups that exhibited the greatest levels of participation in professional services work were Asian Pacific American-owned businesses (14.2%), Hispanic American-owned businesses (10.0%), and woman-owned businesses (4.9%).

Figure 7-2.
Utilization analysis results for
construction and professional
services work

Notes:

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

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

Source:

BBC utilization analysis.

Business group	Industry	
	Construction	Professional services
White woman-owned	9.4 %	4.9 %
Asian Pacific American-owned	2.0 %	14.2 %
Black American-owned	0.8 %	0.5 %
Hispanic American-owned	8.7 %	10.0 %
Native American-owned	1.9 %	0.1 %
Subcontinent Asian American-owned	0.4 %	2.1 %
Total POC-owned	13.8 %	26.9 %
Total POC- and woman-owned	23.2 %	31.8 %

3. Contract role. Many POC- and woman-owned businesses are small businesses, and thus, often work as subcontractors. For that reason, it is useful to examine participation separately for the prime contracts and subcontracts Caltrans awarded during the study period. As shown in Figure 7-3, the participation of POC- and woman-owned businesses considered together was greater for Caltrans' subcontracts (48.5%) than for its prime contracts (14.6%). Participation for individual business groups differed between prime contracts and subcontracts:

- The groups that exhibited the greatest levels of participation in prime contracts were Hispanic American-owned businesses (5.6%), woman-owned businesses (4.0%), and Asian Pacific American-owned businesses (3.0%).
- The groups that exhibited the greatest levels of participation in subcontracts were woman-owned businesses (19.6%), Hispanic American-owned businesses (16.9%), and Asian Pacific American-owned businesses (6.6%).

Figure 7-3.
Utilization analysis results for
Caltrans prime contracts and
subcontracts

Notes:

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

For more detail, see Figures E-6 and E-7 in Appendix E.

Source:

BBC utilization analysis.

Business group	Contract Role	
	Prime contracts	Subcontracts
White woman-owned	4.0 %	19.6 %
Asian Pacific American-owned	3.0 %	6.6 %
Black American-owned	0.1 %	2.1 %
Hispanic American-owned	5.6 %	16.9 %
Native American-owned	1.3 %	2.2 %
Subcontinent Asian American-owned	0.5 %	1.1 %
Total POC-owned	10.6 %	28.9 %
Total POC- and woman-owned	14.6 %	48.5 %

4. Funding source. The Federal DBE Program applies specifically to Caltrans' United States Department of Transportation (USDOT)-funded projects (specifically Federal Highway Administration-funded work).² As part of the program, the agency uses various *race- and gender-neutral measures* as well as *race- and gender-conscious* DBE contract goals to encourage the participation of POC- and woman-owned businesses in the USDOT-funded projects it awards. In contrast, because of Proposition 209, Caltrans does not use contract goals or any other race- or gender-conscious measures to award state- or non USDOT-funded contracts or procurements. It is instructive to examine the participation of those businesses separately for Caltrans' USDOT-funded work to assess whether the participation of POC- and woman-owned businesses in those projects is different from the non USDOT-funded projects it awards. As shown in Figure 7-4, the participation of POC- and woman-owned businesses considered together for Caltrans' non USDOT-funded work (20.0%) was less than that of its USDOT-funded work (26.1%). Participation for individual business groups differed between funding source:

- The groups that exhibited the greatest levels of participation in USDOT-funded work were woman-owned businesses (9.5%), Hispanic American-owned businesses (9.3%), and Asian Pacific American-owned businesses (4.2%).
- The groups that exhibited the greatest levels of participation in non USDOT-funded work were Hispanic American-owned businesses (7.8%), woman-owned businesses (5.9%), and Asian Pacific American-owned businesses (3.7%).

² BBC considered a project to be USDOT-funded if it included at least \$1 of federal funding.

Figure 7-4.
Utilization analysis results for
Caltrans work by funding source

Notes:

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

For more detail, see Figures E-10 and E-11 in Appendix E.

Source:

BBC utilization analysis.

Business group	Funding Source	
	USDOT-funded	Non USDOT-funded
White woman-owned	9.5 %	5.9 %
Asian Pacific American-owned	4.2 %	3.7 %
Black American-owned	0.7 %	0.8 %
Hispanic American-owned	9.3 %	7.8 %
Native American-owned	1.7 %	1.2 %
Subcontinent Asian American-owned	0.7 %	0.7 %
Total POC-owned	16.6 %	14.1 %
Total POC- and woman-owned	26.1 %	20.0 %

C. Concentration of Dollars

BBC analyzed the degree to which relevant contract and procurement dollars Caltrans awarded to POC- and woman-owned businesses during the study period were spread across different businesses. We used that analysis as an indication of whether many businesses share in the collective success of their respective groups or whether only a few businesses account for each group's aggregate participation in Caltrans work. We assessed that question by calculating:

- The number of businesses within each group to which Caltrans awarded contract and procurement dollars during the study period; and
- The number of businesses within each group that accounted for 75 percent of the group's total contracting dollars during the study period after ordering them from most to least awarded dollars.

Figure 7-5 presents those results for each relevant group of POC- and woman-owned businesses. In total, Caltrans awarded approximately \$4.8 billion to 813 different POC- and woman-owned businesses during the study period. However, only 79 of those businesses (9.7%) accounted for 75.1 percent of the corresponding contract and procurement dollars. Most notably, although Caltrans awarded contract and procurement dollars to 271 different woman-owned businesses, 19 of them accounted for 75 percent of those dollars by themselves. Similarly, although Caltrans awarded contract and procurement dollars to 107 different Asian Pacific American-owned businesses, 8 of them accounted for 75.3 percent of those dollars by itself. In addition, 38 Hispanic American-owned businesses accounted for 75.4 percent of all dollars that went to Hispanic American-owned businesses by themselves. Those results indicate that a small number of POC- and woman-owned businesses accounted for most of the total contract and procurement dollars Caltrans awarded to those businesses during the study period.

Figure 7-5.
Concentration of contract and procurement dollars Caltrans awarded to POC-
and woman-owned businesses

Business group	Utilized businesses	Businesses Accounting for 75% of Contract Dollars	
		Number	Percent of total businesses in group
White woman-owned	271	19	7.0 %
Asian Pacific American-owned	107	8	7.5 %
Black American-owned	51	8	15.7 %
Hispanic American-owned	307	38	12.4 %
Native American-owned	33	6	18.2 %
Subcontinent Asian American-owned	44	9	20.5 %
Total POC-owned	542	62	11.4 %
Total POC- and woman-owned	813	79	9.7 %

Note: The number of businesses listed may have received more than 75 percent of the dollars for each relevant group.

Source: BBC utilization analysis.

CHAPTER 8.

Disparity Analysis

BBC Research & Consulting (BBC) compared the percentage of contract and procurement dollars the California Department of Transportation (Caltrans) awarded to person of color (POC)- and woman-owned businesses during the study period (i.e., *utilization* or participation) with the percentage of contract and procurement dollars one might expect Caltrans to award to those businesses based on their availability for that work.¹ The analysis focused on construction and professional services work Caltrans awarded between January 1, 2020 through December 31, 2023 (the *study period*).

A. Overview

BBC expressed utilization and availability as percentages of the total dollars associated with a particular set of projects and then used the following formula to calculate a *disparity index* to help compare utilization and availability for relevant business groups and different sets of projects:

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

A disparity index of 100 indicates *parity* between actual participation and availability. That is, the participation of a particular business group is in line with its availability. A disparity index of less than 100 indicates a *disparity* between participation and availability. That is, the group is considered to have been underutilized relative to its availability. Finally, a disparity index of less than 80 indicates a *substantial disparity* between participation and availability. That is, the group is considered to have been substantially underutilized relative to its availability. Many courts have considered substantial disparities as *inferences of discrimination* against particular business groups, and they often serve as justification for organizations to use relatively aggressive measures—such as *race- and gender-conscious measures*—to address corresponding barriers.²

B. Disparity Analysis Results

BBC measured overall disparities between the participation and availability of POC- and woman-owned businesses for all relevant contracts and procurements considered together. For POC- and woman-owned businesses, we also measured disparities separately for various subsets of contracts and procurements Caltrans awarded during the study period, because that level of information is instructive to Caltrans as it makes decisions about its implementation of the Federal Disadvantaged Business Enterprise (DBE) Program. We provide detailed disparity analysis results in Appendix E.

1. Overall. Figure 8-1 presents disparity indices for POC- and woman-owned businesses for all relevant prime contracts and subcontracts Caltrans awarded during the study period. There is a line at the

¹ “Woman-owned businesses” refers to White woman-owned businesses. Information and results for businesses owned by women of color are included along with those of businesses owned by men of color according to their corresponding race/ethnic groups.

² For example, see *Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1041; *Engineering Contractors Association 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).

disparity index level of 100, which indicates parity, and a line at the disparity index level of 80, which indicates a substantial disparity. The substantial disparities we observed are highlighted with red borders. As shown in Figure 8-1, POC- and woman-owned businesses considered together exhibited a disparity index of 75 for all relevant contracts and procurements Caltrans awarded during the study period, indicating a disparity where Caltrans awarded POC- and woman-owned businesses \$0.75 for every dollar one might expect the agency to award to those businesses based on their availability for Caltrans work. Asian Pacific American-owned businesses (disparity index of 71), Black American-owned businesses (disparity index of 29), Hispanic American-owned businesses (disparity index of 64), and Subcontinent Asian American-owned businesses (disparity index of 29) exhibited substantial disparities for Caltrans work.

Figure 8-1.
Overall disparity analysis
results for Caltrans work

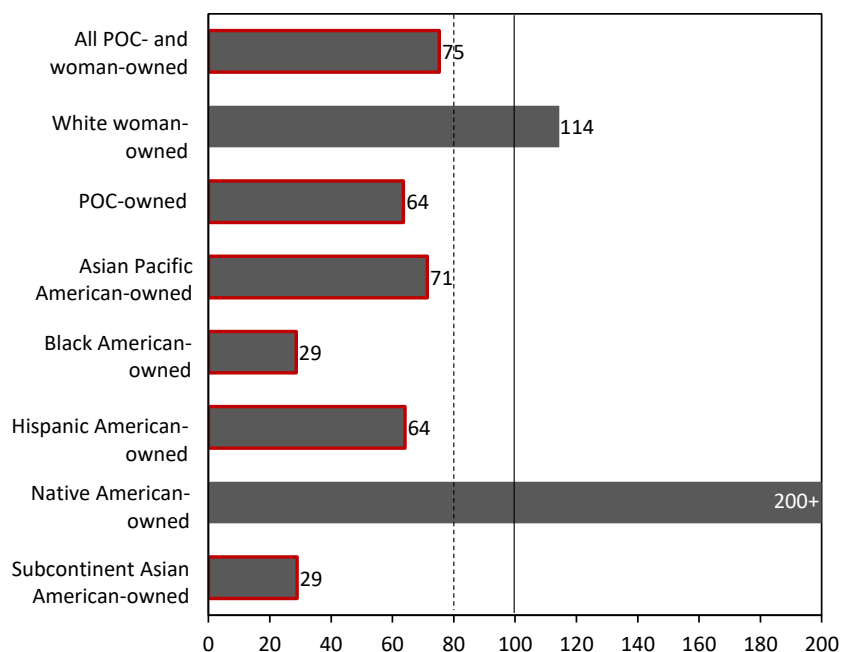
Notes:

For more detail, see Figure E-1 in Appendix E.

Substantial disparities highlighted with red borders.

Source:

BBC disparity analysis.



2. Industry. Caltrans can develop programs to encourage the participation of POC- and woman-owned businesses in its work that are tailored specifically to different industries. For example, if Caltrans determines that it is appropriate to continue to use race- or gender-conscious measures as part of its contracting and procurement, it can determine which groups might be eligible to participate in those measures separately for construction and professional services projects based on information about which groups face substantial disparities in each industry. BBC examined disparity analysis results separately for the construction and professional services work Caltrans awarded during the study period to determine whether outcomes for POC- and woman-owned businesses differed by industry.

As shown in Figure 8-2, POC- and woman-owned businesses considered together exhibited substantial disparities for construction (disparity index of 74) but not for professional services work (disparity index of 80). Disparity indices varied by business group and industry:

- Asian Pacific American-owned businesses (disparity index of 50), Black American-owned businesses (disparity index of 35), Hispanic American-owned businesses (disparity index of 58), and Subcontinent Asian American-owned businesses (disparity index of 18) exhibited substantial disparities for construction work.

- Woman-owned businesses (disparity index of 58), Black American-owned businesses (disparity index of 12), and Native American-owned businesses (disparity index of 8) exhibited substantial disparities for professional services work.

Figure 8-2.
Disparity analysis results for
construction and professional
services work

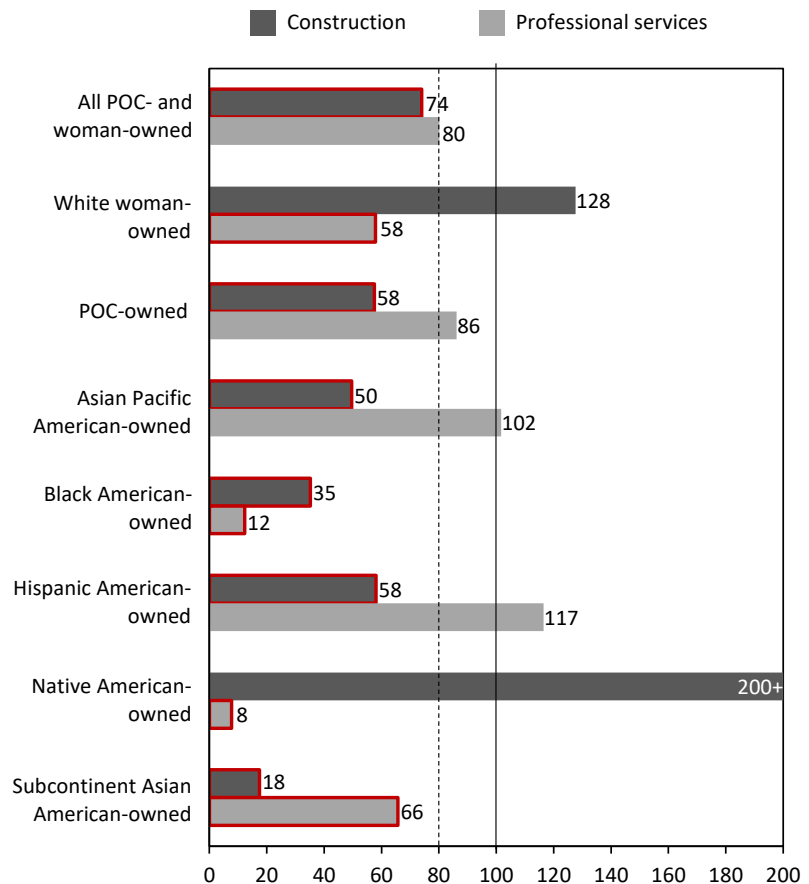
Notes:

For more detail and results by group, see
Figures E-4 and E-5 in Appendix E.

Substantial disparities highlighted with red
borders.

Source:

BBC disparity analysis.



3. Contract role. Many POC- and woman-owned businesses are small businesses, and thus, often work as subcontractors. For that reason, it is instructive to examine disparity analysis results separately for the prime contracts and subcontracts Caltrans awarded during the study period. As shown in Figure 8-3, POC- and woman-owned businesses considered together exhibited substantial disparities for prime contracts (disparity index of 60) but not for subcontracts (disparity index of 92). Disparity indices differed by business group and contract role:

- Woman-owned businesses (disparity index of 74), Asian Pacific American-owned businesses (disparity index of 67), Black American-owned businesses (disparity index of 5), Hispanic American-owned businesses (disparity index of 60), and Subcontinent Asian American-owned businesses (disparity index of 24) exhibited substantial disparities for prime contracts.
- Asian Pacific American-owned businesses (disparity index of 76), Hispanic American-owned businesses (disparity index of 67), and Subcontinent Asian American-owned businesses (disparity index of 36) exhibited substantial disparities for subcontracts.

Figure 8-3.
Disparity analysis results for
Caltrans prime contracts and
subcontracts

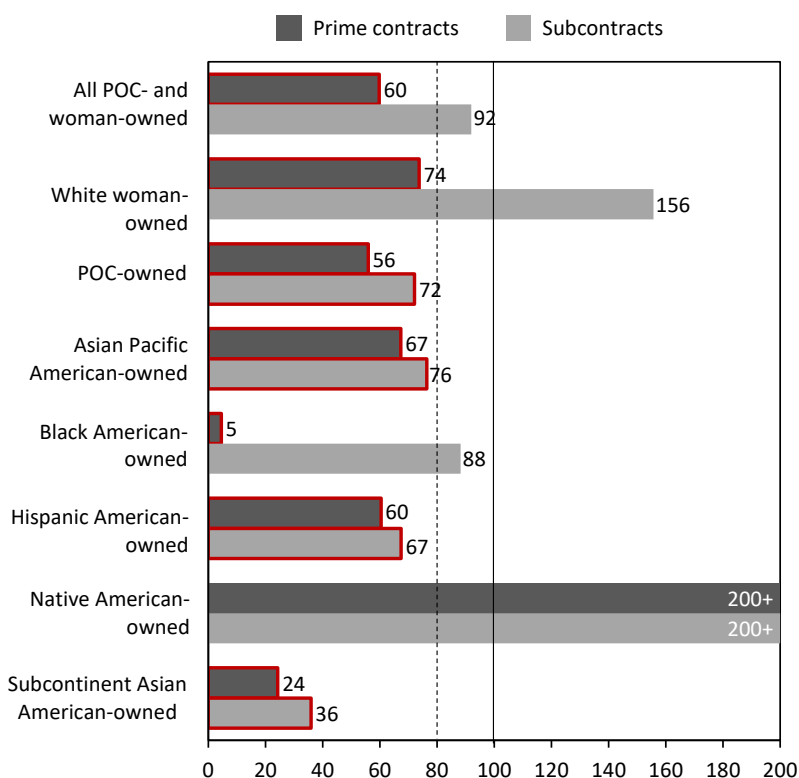
Notes:

For more detail, see Figures E-6 and E-7 in
Appendix E.

Substantial disparities highlighted with red
borders.

Source:

BBC disparity analysis.



4. Funding source. The Federal DBE Program applies specifically to Caltrans' United States Department of Transportation (USDOT)-funded projects (specifically Federal Highway Administration-funded work).³ As part of the program, the agency uses various race- and gender-neutral measures as well as race- and gender-conscious DBE contract goals to encourage the participation of POC- and woman-owned businesses in the USDOT-funded projects it awards. In contrast, because of Proposition 209, Caltrans does not use contract goals or any other race- or gender-conscious measures to award state- or non USDOT-funded contracts or procurements. It is instructive to examine disparity analysis results separately for Caltrans' USDOT-funded work, because any disparities for that work is most directly indicative of the efficacy of Caltrans' implementation of the Federal DBE Program to encourage the participation of POC- and woman-owned businesses in that work relative to their availability.

As shown in Figure 7-4, POC- and woman-owned businesses considered together exhibited substantial disparities for non USDOT-funded work (disparity index of 48) but not for USDOT-funded work (disparity index of 87). Disparity indices differed by individual business groups and funding source:

- Asian Pacific American-owned businesses (disparity index of 79), Black American-owned businesses (disparity index of 26), Hispanic American-owned businesses (disparity index of 77), and Subcontinent Asian American-owned businesses (disparity index of 35) exhibited substantial disparities for USDOT-funded work.
- Asian Pacific American-owned businesses (disparity index of 52), Black American-owned businesses (disparity index of 43), Hispanic American-owned businesses (disparity index of 39),

³ BBC considered a project to be USDOT-funded if it included at least \$1 of federal funding.

and Subcontinent Asian American-owned businesses (disparity index of 19) exhibited substantial disparities for non USDOT-funded work.

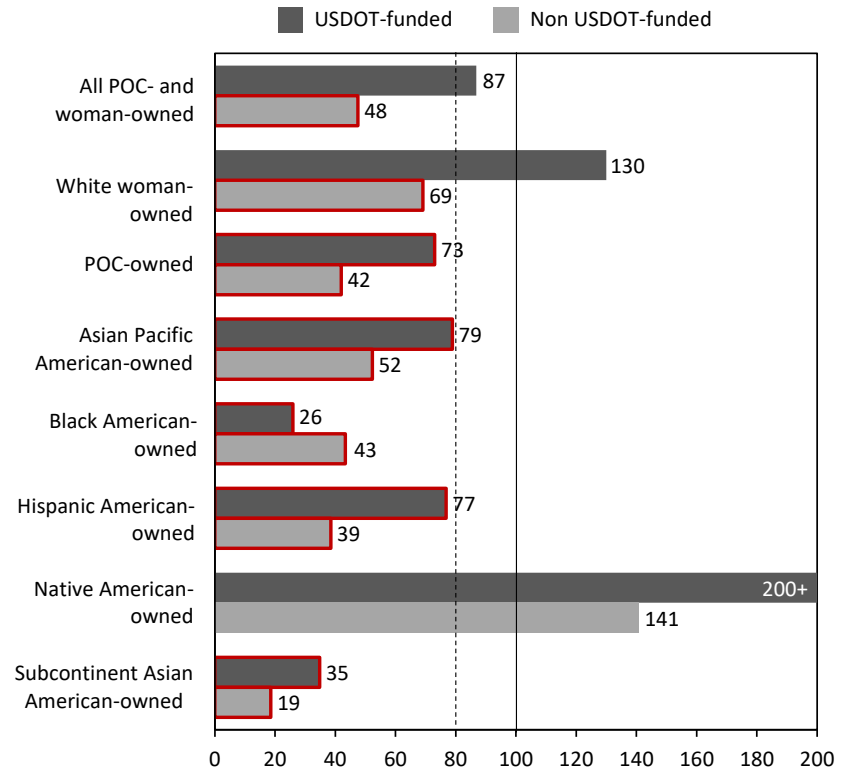
Figure 8-4.
Disparity analysis results for
Caltrans work by funding source

Note:

For more detail, see Figures E-14 and E-15 in Appendix E.

Source:

BBC disparity analysis.



C. Statistical Significance

Statistical significance tests allow researchers to assess the probability that any observed quantitative differences were due to *real* differences rather than to chance. In other words, a statistically significant difference is one that can be considered as statistically reliable. BBC used Monte Carlo analysis, which relies on repeated, random simulations of the data to assess the statistical significance of key disparity analysis results.

1. Overview of Monte Carlo. BBC used Monte Carlo simulations to randomly select businesses to “win” individual contract elements included in disparity study analyses. For each contract element, the availability analysis provided information on businesses potentially available to perform that contract element based on type of work, contractor role, contract size, and other factors. Then, we randomly chose a business from the pool of available businesses to win the contract element. The chance of a business from a particular business group winning the contract element was equal to the number of businesses from that group available for it divided by the number of all businesses available for it.

BBC conducted Monte Carlo simulations for all contract elements included in the disparity study. The output of the simulation for all the contract elements represented simulated participation of POC- and woman-owned businesses for all relevant Caltrans projects. The entire Monte Carlo simulation was then repeated 1 million times. The combined output from all 1 million simulations resulted in a probability distribution of the overall participation of POC- and woman-owned businesses if contracts and

procurements were awarded randomly based only on the estimated availability of relevant businesses working in the local marketplace.

The output of Monte Carlo simulations represents the number of simulations out of 1 million that produced participation equal to or less than the actual, observed participation of POC- and woman-owned businesses in Caltrans work. If that number was less than or equal to 25,000 (i.e., 2.5% of the total number of simulations, or $p = .025$), then we considered the disparity index to be statistically significant at $\alpha = .05$, using two-tailed tests.

2. Results. BBC ran Monte Carlo simulations on all non USDOT-funded Caltrans contracts and procurements to assess whether the substantial disparities relevant business groups exhibited for that work were statistically significant. As shown in Figure 8-5, results from the Monte Carlo analysis indicated that the disparity we observed for POC- and woman-owned businesses considered together on non USDOT-funded Caltrans contracts and procurements was statistically significant at the 99 percent confidence level. In addition, the disparities we observed for individual business groups were significant at the 99 percent confidence level.

Figure 8-5.
Statistical significance of
disparities for Caltrans work

Note:

A double asterisk indicates statistical significance at a 99 percent confidence level.

Source:

BBC disparity analysis.

Business Group	Disparity index	Probability that disparity is due to chance (p value)
POC-owned and woman-owned	48	0.00 **
White woman-owned	69	0.00 **
POC-owned	42	0.00 **
Asian American-owned	52	0.00 **
Black American-owned	43	0.00 **
Hispanic American-owned	39	0.00 **
Native American-owned	141	N/A
Subcontinent Asian American-owned	19	0.00 **

CHAPTER 9.

Program Measures

As part of implementing the Federal Disadvantaged Business Enterprise (DBE) Program, the California Department of Transportation (Caltrans) uses a combination of *race- and gender-neutral* and *race- and gender-conscious* measures to encourage the participation of person of color (POC)- and woman-owned businesses in its transportation-related contracting and procurement.¹ Race- and gender-neutral measures are designed to encourage the participation of all businesses—or, all small businesses—in an organization’s work, regardless of the race/ethnicity or gender of business owners. In contrast, race- and gender-conscious measures are designed specifically to encourage the participation of POC- and woman-owned businesses in an organization’s contracting (e.g., using POC-owned business participation goals on individual contracts).

To meet the *narrow tailoring* requirement of the *strict scrutiny* standard of constitutional review, agencies that implement the Federal DBE Program must meet the maximum feasible portion of their overall DBE goals through the use of race- and gender-neutral measures.² If an agency cannot meet its overall DBE goal through the use of race- and gender-neutral measures alone, then it must consider also using race- and gender-conscious measures. When submitting documentation related to its overall DBE goal to the United States Department of Transportation (USDOT), an agency must project the portion of its overall DBE goal it expects to meet through race- and gender-neutral measures and what portion it expects to meet through race- and gender-conscious measures. USDOT offers guidance concerning how transportation agencies should make such projections.

BBC Research & Consulting (BBC) reviewed measures Caltrans currently uses to encourage the participation of POC- and woman-owned businesses in its contracting. BBC reviewed Caltrans’ program measures in three parts:

- A. DBE certification;
- B. Race- and gender-neutral measures; and
- C. Race- and gender-conscious measures.

A. DBE Certification

Caltrans’ Office of Civil Rights (OCR) implements the Federal DBE Program, including certifying DBEs. The application is entirely online and is free to submit, with the exception of a notary fee in some cases. To be eligible, business owners must prove they are part of a “socially and economically disadvantaged” group as defined in 49 Code of Federal Regulations (CFR) Part 26. The business owner must have 51 percent “real and substantial ownership” in their business and must possess the power and expertise to control the daily operations and management of their businesses. The business owner must also be a United States citizen or legal resident, and they must have a personal net worth of less than \$2.047

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

² 49 CFR Section 26.51.

million. The business itself must be independent and have average revenue of less than \$30.72 million over three years. The certification process takes 90 days and includes a site visit either in person or virtual (audio recording required).

Once businesses are certified, they are added to the California Unified Certification Program (CUCP) database, which is searchable and is one of the primary resources prime contractors can use to find DBE subcontractors. Certain measures Caltrans uses as part of the Federal DBE Program—including networking opportunities like OCR’s DBE Summit—are only available to certified businesses.

On April 9, 2024, USDOT issued a final rule designed to modernize program regulations of the DBE Program. Key changes in the final rule include:

- USDOT fund recipients are required to provide additional information about DBE participation as part of their Uniform Report submissions to USDOT, such as vendor names, work types, contract numbers, and dollar values of DBE contracts.
- USDOT will establish an online system to which all fund recipients must upload their bidders lists of firms interested in performing work for the agency.
- Prime contractors responding to requests for proposals for design build projects must submit an open-ended DBE performance plan detailing the types of work they will solicit for DBE performance and the timeframe in which those solicitations and subcontracts would come to fruition.
- If materials or supplies are purchased from a DBE distributor that neither maintains sufficient inventory nor uses its own distribution equipment for the products in question, their DBE participation can be counted as 40 percent of the cost of materials, supplies, and transportation costs.
- Personal net worth (PNW) limits have been updated from \$1.32 million to \$2.047 million and will be adjusted triennially per inflation. Retirement assets and leased vehicles shall be excluded from PNW calculations.
- Business size limits have been updated to \$30.72 million and shall be updated on an annual basis.
- Interstate certifications have been simplified and now only require the DBE to request certification in writing, provide evidence of certification, and submit a declaration of eligibility.

B. Race- and Gender-Neutral Measures

Caltrans uses myriad race- and gender-neutral measures to encourage the participation of small businesses—including many POC- and woman-owned businesses—in its contracting. Caltrans uses the following types of race- and gender-neutral measures as part of the Federal DBE Program:

- Small business participation goals;
- Business outreach and communication;
- Technical assistance; and
- Prompt payment.

1. Small business participation goals. The Federal DBE Program requires USDOT funding recipients to implement a small business (SB) program as a race- and gender-neutral measure to encourage the participation of certified SBs in its contracting.³ California Assembly Bill (AB) 2019 puts forth an overall aspirational goal of 25 percent SB participation in state departments' total procurement spend. DBEs are not included in the SB participation requirement, and DBEs that wish to participate in state contracting are encouraged to seek state SB certification. State departments that do not meet annual SB participation goals are required to submit improvement plans to the California Department of General Services (DGS) and could be subject to remedial actions by DGS—including removing purchasing authority—if they fail to meet the SB participation goal for three out of five years.

2. Business outreach and communication. Caltrans conducts several outreach and communication efforts across California to encourage the participation and growth of small businesses and POC- and woman-owned businesses. In each of Caltrans' 12 districts, district small business liaisons (DSBLs) act as points of contact on behalf of the agency for small businesses, including DBEs and many other POC- and woman-owned businesses. DSBLs help prime contractors identify potential subcontractors and also lead more focused outreach such as local procurement fairs, workshops, and small business events. DSBLs are also primarily responsible for facilitating various outreach efforts, including:

- Meetings and relationship building;
- Website communications;
- Advertisements of contract opportunities; and
- Other outreach events and workshops.

a. Meetings and relationship building. In an effort to engage stakeholders, Caltrans meets regularly with a wide range of interest groups, including construction and engineering trade associations as well as small business and DBE representatives.

i. Trade association meetings. Each quarter, Caltrans hosts stakeholder meetings with major construction and engineering trade associations, including the Associated General Contractors of America (AGC), the American Council of Engineering Companies (ACEC), and United Contractors. Caltrans hosts those meetings each quarter at its headquarters (or virtually) in partnership with a representative from each organization. Individuals must be members of the AGC, ACEC, or United Contractors in order to attend the meetings. The meetings center around construction and engineering contracting and address various topics, including project advertisement and schedule, DBE updates, safety topics, project specifications, and new business opportunities. Between 10 and 25 members of each organization typically attend each meeting.

ii. Small Business Council meetings. Caltrans hosts Small Business Council (SBC) meetings six times a year with members of small business trade associations representing at least 35 members that are organized under the laws of California and have small business interests in Caltrans contracts and projects [specifically, construction, commodities, and architecture and engineering (A&E)]. The locations for the SBC meetings alternate between Caltrans headquarters in Sacramento and various district offices throughout California. Caltrans uses the meetings to provide information on future contract

³ 49 CFR Part 26.39

opportunities and engage small businesses and POC- and woman-owned businesses in the Caltrans contracting process. In addition, the SBC holds committee meetings that cover more detailed topics related to construction, engineering, and commodities contracting. The committees are responsible for discussing those issues and presenting recommendations to the main membership body.

OCR manages invitations to the Caltrans SBC meetings, and the meetings are not exclusive to members—non-members who are interested in the meetings can also attend. In addition to the statewide SBC meetings, other Caltrans districts—such as Districts 4 and 11—organize their own SBC meetings to focus on local issues.

b. Website communications. Caltrans revises and updates the OCR website regularly. The website currently provides access to various resources including links to relevant information, such as:

- DBE certification database;
- DBE certification workshop presentations, guidelines, frequently asked questions, instructions, and application;
- Supportive services programs and resources;
- Technical assistance resources; and
- Contact information for each DSBL.

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

c. Advertisements of contract opportunities. In addition to attending meetings, events, and accessing the OCR website, there are several other ways for small businesses, including many POC- and woman-owned businesses, to find out about contract opportunities with Caltrans.

i. Weekly advertisements. Each week, on the Office Engineer website, Caltrans provides a complete list of all projects currently out for bid as well as a list of upcoming projects. All advertisements are refreshed and updated on a weekly basis. Caltrans also provides useful links for contractors that want to view contract documents, order bid books, place prime contractor advertisements, opt in to particular contracts, or see planholders lists.

ii. Project look ahead. Caltrans also provides a “project look ahead” report for information on upcoming projects statewide. Contractors can create an account with Caltrans to receive automated e-mails when projects are added or modified and get customized views of projects in specific areas. DSBLs also provide “look ahead” information at local workshops and events.

iii. Contractor’s Corner. Contractor’s Corner is a special feature on the Office Engineer website that allows contractors to identify projects in which they are interested and for which they are advertising subcontracting opportunities. Contractor’s Corner allows contractors to input basic firm qualifications and contact information. Contractors can modify that information and also download bid documents for e-advertised projects. Contractors are also able to opt in to a feature to communicate they are interested in subcontracting or supplying materials to prime contractors. Planholders lists composed of contractors that have ordered bid books for a particular project are also available on Contractor’s

Corner. The lists are updated immediately when a bidder places an order for a bid book online. Caltrans also provides a planholders search that offers an up-to-the-minute view of the businesses bidding on all currently advertised projects. The planholders search provides options for searching by DBE or small business status to help meet any contract goals. Registration for and use of Contractor's Corner is free.

iv. Cal eProcure. Cal eProcure is an online portal contractors can use to access advertised bid opportunities with the State of California in the California State Contracts Register. Contract opportunities are posted online and distributed to contractors that are registered through Cal eProcure.

d. Other outreach events and workshops. Caltrans participates in a number of outreach events and workshops, some of which are organized by headquarters and others by district offices. The most notable workshops and outreach events Caltrans hosts include the following:

i. Certification workshops. Caltrans provides certification workshops for potential DBEs across the state. The workshops cover topics such as certification requirements and guidelines for completing the certification application.

ii. Procurement fairs. Caltrans holds annual procurement fairs in each district. During each procurement fair, purchasers from Caltrans divisions and local purchasing partners are invited to have face-to-face discussions with small business owners.

iii. Mandatory pre-bid (MPB) meetings. Caltrans holds MPB meetings for certain construction contracts at the discretion of DGS. When a project is selected for an MPB meeting, prime contractors are required to be present in order to be eligible to bid on the contract. MPB meetings are also open to other interested businesses—including small businesses, DBEs, and POC- and woman-owned businesses—to network with prime contractors and express their interest in performing work as subcontractors or suppliers.

iv. A&E contract outreach events. Caltrans may hold outreach events specifically for A&E contracts. Caltrans invites prime consultants as well as small businesses, disabled veteran-owned business enterprises, DBEs, POC-owned and woman-owned businesses, and other potential subcontractors to the events to network and learn more about the projects.

v. Pre-proposal conferences. Caltrans may host pre-proposal conferences for engineering contracts on an as-needed basis, either in person or via teleconference. Pre-proposal conferences occur early in the advertisement period of solicitations and attendance is optional. During the conferences, the contract manager discusses the project's scope of work and a Department of Procurement and Contracting representative provides tips on how to submit responsive bids.

vi. Contractor's Bootcamp. In 2018, Caltrans began offering Contractor's Bootcamps, which are free, two-day events during which Caltrans provides information on topics affecting DBEs, including certification, financial requirements, and networking. The bootcamps are offered on an as-needed basis throughout the state.

3. Technical assistance. Caltrans offers various forms of technical assistance through one-on-one consultations and mentoring. In addition, OCR is developing partnerships with outside resource centers to provide additional technical assistance to its vendors..

a. One-on-one consultations. DSBs and Caltrans staff offer one-on-one technical assistance via telephone or in person to small businesses, including many POC- and woman-owned businesses. Businesses can request assistance related to navigating contracting documents, the DBE certification process, the opt-in process for Contractor's Corner, and other topics.

b. Mentor-protégé program. Caltrans offers the Calmentor program for small engineering and construction businesses. The program provides small businesses with opportunities to participate in mentor-protégé relationships with larger, more successful businesses working in similar industries. Calmentor is a statewide program available in all 12 districts, though it is run at a regional level (i.e., North, South, and Central).

4. Prompt payment. Caltrans provides several references to prevailing wage agreements and prompt payment requirements within its contracting language. Payment-related contracting language is in accordance with prompt payment code sections 10262.5 in the California Public Contract Code, also known as the California Prompt Payment Act. According to the act, invoices to Caltrans must be paid within 30 days of approval, and prime contractors are required to pay subcontractors for their work within seven days of receiving payment. In addition, Caltrans makes efforts to monitor payments for each project to ensure small businesses, including many POC- and woman-owned businesses, are participating in contracts in a manner consistent with commitments prime contractors made to them at the time of project award. For engineering contracts, the contract manager is responsible for monitoring payments to subcontractors. The ADM-3069 and ADM-3069AE forms request payment information for all subcontractors. If prime contractors do not submit those forms with each invoice, the contract manager withholds 25 percent of payment until the forms are provided. For construction contracts, the resident engineer monitors first-tier subcontractor participation on the job site. Construction contract forms, including Forms 1201 and 2402, capture commitment and payment data when the project is awarded and completed.

C. Race- and Gender-Conscious Measures

The only race- and gender-conscious measure Caltrans uses is using DBE contract goals in awarding many of its Federal Highway Administration (FHWA)-funded contracts. Prime contractors bidding on those contracts must meet the goals by either making subcontracting commitments to certified DBEs or submitting documentation that they made *good faith efforts* (GFEs) to meet the goals but failed to do so. Caltrans reviews GFEs documentation and approves it if prime contractors demonstrate genuine efforts towards meeting DBE goals. Examples of GFEs are:

- Identifying elements of the contract to make them available for DBE subcontractors;
- Soliciting bids from DBEs directly, including following up and negotiating when possible;
- Providing DBEs with information about the project, contract requirements, and other elements of the work; and
- Assisting DBEs with obtaining bonding, insurance, or other finance requirements, as well as supplies and materials.

Bidders may also provide other information about the efforts they made in finding DBE subcontractors if they feel they demonstrate genuine efforts to engage with those businesses. If prime contractors do not

meet the goals through subcontracting commitments or through approved GFEs documentation, then Caltrans can reject prime contractors' bids.

Caltrans does not use any race- or gender-conscious measures when awarding state-funded contracts 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. 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 does not prohibit agencies from using race- or gender-conscious measures if it is required to use them “to establish or maintain eligibility for any federal program,” which is why Caltrans continues to use race- and gender-conscious measures in awarding FHWA-funded contracts. Additionally, Proposition 209 does not prohibit agencies from collecting diversity ownership information, including ownership status by POCs or women, which is why Cal eProcure displays diversity information if it is voluntarily self-reported by state suppliers.⁴

⁴ AB 2019, Chapter 730

CHAPTER 10.

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 United States Department of Transportation (USDOT)-funded projects [specifically, its Federal Highway Administration (FHWA)-funded projects]. Agencies are required to develop overall DBE goals every three years, but they are *annual* goals in that agencies must monitor DBE participation in their USDOT-funded work every year. If an agency's DBE participation for a particular year is less than its 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.

Caltrans must prepare and submit a Goal and Methodology document to USDOT that presents its overall DBE goal for USDOT-funded work. The goal must be supported by information about the steps the agency took to develop it and the factors it considered. Caltrans developed an overall DBE goal for federal fiscal years (FFYs) 2022 through 2024. In FFYs 2022 through 2024, Caltrans had a DBE goal of 22.2 percent on FHWA-funded projects. Caltrans indicated to USDOT that it planned to meet the goals 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 overall DBE goal for FFYs 2025 through 2027. Chapter 10 provides information the agency might consider as part of setting its new overall DBE goal for its FHWA-funded contracts and procurements. It is organized in three parts, based on guidance set forth in 49 Code of Federal Regulations (CFR) Part 26:

- A. Establishing a base figure;
- B. Considering a step-2 adjustment; and
- C. DBE groups eligible for race- and gender-conscious measures.

A. Establishing a Base Figure

Establishing a *base figure* is the first step in calculating an overall goal for DBE participation in Caltrans' USDOT-funded work. As presented in Figure 12-1, the agency might be expected to award 27.7 percent of its USDOT-funded prime contract and subcontract dollars to *potential DBEs*—that is, person of color (POC)- and woman-owned businesses that are DBE-certified or appear they could be DBE-certified according to the annual revenue limits described in 13 CFR Part 121 and 49 CFR Part 26—based on their availability for that work (see Appendix E, Figure E-20 for more detail). The agency might consider 27.7 percent as the base figure for its overall DBE goal if it anticipates that the types and sizes of USDOT-funded projects it awards in the future will be similar to the USDOT-funded projects it awarded during the *study period* (i.e., January 1, 2020 through December 31, 2023).

The calculation of the overall base figure reflects weights of 81.5 percent for construction projects and 18.5 percent for professional services projects based on the volume of dollars of USDOT-funded work Caltrans awarded during the study period related to each industry. If Caltrans expects that the relative

distributions of USDOT-funded contract dollars by industry will change substantially in the future, the agency might consider applying different weights to the corresponding base figure components.

Figure 10-1.
Professional services and construction components of base figure for federally funded contracts

Notes:

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

See Figures E-21 and E-22 in Appendix F for corresponding disparity results tables.

Source:

BBC availability analysis.

Potential DBEs	Availability Percentage		Weighted average
	Professional services	Construction	
Asian Pacific American	13.4 %	3.4 %	5.3 %
Black American	4.3 %	2.4 %	2.8 %
Hispanic American	8.3 %	11.9 %	11.2 %
Native American	0.4 %	0.5 %	0.5 %
Subcontinent Asian American	3.2 %	1.7 %	2.0 %
Non-Hispanic White woman	8.2 %	5.5 %	6.0 %
Total potential DBEs	37.8 %	25.4 %	27.7 %
Industry weight	18.5 %	81.5 %	

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 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.¹

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

1. Current capacity of DBEs to perform work. USDOT’s “Tips for Goal-Setting” suggests that agencies should examine data on past DBE participation in their FHWA-funded projects in recent years. Results from the utilization analysis indicate that Caltrans awarded 15.0 percent of its USDOT-funded project dollars to certified DBEs during the study period, which supports a downward adjustment to the agency’s base figure. If the agency adjusts its base figure based on past DBE participation, USDOT suggests it might take the average of its 27.7 percent base figure and the 15.0 percent past DBE participation in its USDOT-funded projects, yielding an adjusted overall DBE goal of 21.35 percent.

2. Information related to employment, self-employment, education, training, and unions. Chapter 4 summarizes information about conditions in the *relevant geographic market area (RGMA)* for

¹ 49 CFR Section 26.45.

POCs, women, and POC- and woman-owned businesses. BBC's analyses of conditions in the RGMA are presented in Appendix D. Those analyses indicate that there are barriers certain POC groups and women face related to human capital, financial capital, business ownership, and business success throughout California. Such barriers may decrease the availability of POC- and woman-owned businesses for the USDOT-funded projects Caltrans awards, which supports an upward adjustment to the agency's base figure. In addition, BBC used regression analyses to investigate whether race/ethnicity and gender are related to business ownership in relevant industries among workers in the California marketplace independent of various other personal characteristics, including familial status, education, and age. (Chapter 4 and Appendix D provide details about our regression analyses.) Those analyses indicate that, even after accounting for such factors, POCs are less likely to own businesses in certain industries relative to White Americans, and women are less likely to own businesses in certain industries than men. Based on the results of those analyses, Caltrans might consider an upward adjustment to its base figure.

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 POCs, women, and POC- 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. Any such barriers might limit opportunities for POCs and women to successfully form and operate businesses in the RGMA. They would also place those businesses at a disadvantage in competing for Caltrans' USDOT-funded prime contracts and subcontracts. Thus, information about financing, bonding, and insurance also supports an upward adjustment to the 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.²

a. Business success. There is quantitative evidence that certain groups of POC- 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 various business and owner characteristics. Chapter 4 summarizes that evidence and Appendix D presents additional, corresponding results. There is also qualitative evidence of barriers to the success of POC- and woman-owned businesses, as presented in Chapter 5. Some of that information suggests that discrimination on the basis of race/ethnicity and gender adversely affects the success of POC- and woman-owned businesses in California. Thus, information about business success supports an upward adjustment to Caltrans' base figure.

b. Evidence from disparity studies conducted within the region. USDOT suggests that USDOT fund recipients also examine evidence from disparity studies conducted within their RGMAs when determining whether to adjust their base figures. Caltrans should review results from those disparity studies when determining its overall DBE goal. However, the agency should note that the results of those studies are tailored specifically to the projects and policies of the agencies that commissioned them, which may differ in many important respects from those of Caltrans.

5. Summary. The quantitative and qualitative evidence the study team collected as part of the disparity study may support an adjustment to Caltrans' base figure as the agency considers setting its

² 49 CFR Section 26.45.

next overall DBE goal. Based on information from the 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 POCs and women face in human capital and business ownership in the local contracting industry.
- Evidence of barriers that affect POCs, women, and POC- and woman-owned businesses in obtaining financing, bonding, and insurance, and evidence that certain groups of POC- and woman-owned businesses are less successful than comparable businesses owned by non-Hispanic White men also supports an upward adjustment to Caltrans' base figure.
- If Caltrans were to adjust its base figure based on information about DBE participation in FHWA-funded work the agency awarded during the study period, it might consider taking the average of its base figure and the participation of DBEs in that work, which would result in a downward adjustment to its base figure.

USDOT regulations state that USDOT fund recipients are required to review a broad range of information when considering whether it is necessary to make step-2 adjustments—either upward or downward—to their base figures. However, agencies are not required to adjust their base figures as long as they can explain what factors they considered and can explain their decisions in their Goal and Methodology documents.

C. DBE Groups Eligible for Race- and Gender-Conscious Measures

Several seminal court decisions have indicated that, in order to implement the Federal DBE Program in a narrowly tailored manner, agencies should limit the use of race- and gender-conscious program measures to those business groups “that have actually suffered discrimination” within their RGMAs.^{3, 4} Moreover, USDOT official guidance states that, “even when discrimination is present in a state, a program is narrowly tailored only if its application is limited to those specific groups that have actually suffered discrimination or its effects.”⁵ As provided in 49 CFR Part 26, such guidance is “valid, and express[es] the official positions and views of the Department of Transportation”⁶

As part of the 2024 Caltrans Disparity Study, BBC assessed whether there were any disparities between the participation and availability of POC- and woman-owned businesses for Caltrans' USDOT-funded contracts and procurements (for details, see Chapter 8 and Appendix E). The study showed substantial disparities—that is, disparities whereby utilization was less than 80 percent of availability—for all POC-owned businesses considered together as well as for all individual racial/ethnic groups relevant to the Federal DBE Program. Consistent with key court rulings and USDOT official guidance, based on available information, including results from the 2024 Caltrans Disparity Study, Caltrans could consider the following groups eligible to participate in the race- and gender-conscious measures that will be part of the agency's implementation of the Federal DBE Program for FHWA-funded projects:

³ *AGC, San Diego Chapter v. California DOT*, 713 F.3d 1187, 1191, 1199, 2013 WL 1607239 (9th Cir. April 16, 2013)

⁴ *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983, 997-98 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006)

⁵ United States Department of Transportation Official Questions and Answers (Q&A's) Disadvantaged Business Enterprise Program Regulation (49 CFR 26), <https://www.transportation.gov/sites/dot.gov/files/2020-01/docr-20180425-001part26qa.pdf>

⁶ 49 CFR Section 26.9

- Non-Hispanic White woman-owned businesses;
- Black American-owned businesses;
- Asian-Pacific American-owned businesses;
- Hispanic American-owned businesses; and
- Subcontinent Asian-American-owned businesses.

CHAPTER 11.

Implications and Considerations

The 2024 California Department of Transportation (Caltrans) Disparity Study provides information on outcomes for person of color (POC)- and woman-owned businesses in the agency's transportation-related contracts and procurements. BBC Research & Consulting (BBC) summarizes key results from the study as well as their potential implications. We also present guidance Caltrans should consider to further encourage the participation of POC- and woman-owned businesses in its work and particularly in the United States Department of Transportation (USDOT)-funded projects it awards, which are subject to the requirements of the Federal Disadvantaged Business Enterprise (DBE) Program.

A. Key Results and Implications

BBC analyzed the transportation-related construction and professional services work Caltrans awarded between January 1, 2020 and December 31, 2023 (i.e., the *study period*) to calculate the *participation*, or *utilization*, of POC- and woman-owned businesses in that work; estimate the *availability* of those businesses for that work; and assess whether any *disparities*, or *differences*, exist between those measures.¹ We also analyzed marketplace conditions in California to assess whether POCs, women, or the businesses they own face any barriers in relevant industries that make it more difficult for POC- and woman-owned businesses to win work on Caltrans projects. That information will help the agency assess the extent to which race- or gender-based barriers exist in its contracting and procurement and what types of measures it could use to help address those barriers as part of its contracting policies and its implementation of the Federal DBE Program.

1. Availability for Caltrans work. The availability analysis indicated relatively high availability of California-based POC- and woman-owned businesses for the construction and professional services projects Caltrans awards. Figure 11-1 presents estimates of the availability of POC- and woman-owned business for Caltrans work. The overall availability of those businesses for relevant Caltrans projects is 32.8 percent. Hispanic American-owned businesses account for most of that availability followed by White woman-owned businesses.

Figure 11-1.
Availability estimates for Caltrans work

Notes:

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 E-1 in Appendix E.

Source:

BBC availability analysis.

Business group	Availability
White woman-owned	7.6 %
Asian Pacific American-owned	5.7 %
Black American-owned	2.5 %
Hispanic American-owned	13.9 %
Native American-owned	0.7 %
Subcontinent Asian American-owned	2.4 %
Total POC-owned	25.2 %
Total POC- and woman-owned	32.8 %

¹ BBC analyzed \$19.5 billion of relevant contracts and procurements Caltrans awarded during the study period.

2. Participation in Caltrans work. The utilization analysis indicated that Caltrans awarded 13.7 percent of its contract and procurement dollars to California-based POC- and woman-owned businesses during the study period. As shown in Figure 11-2, the POC- and woman-owned business groups to which Caltrans awarded the most project dollars were Hispanic American-owned businesses and white woman-owned businesses. Additional analyses of the participation of POC- and woman-owned businesses in Caltrans work indicated that most of the dollars Caltrans awarded to those businesses were to a relatively small number of them. In total, Caltrans awarded approximately \$2.0 billion to 813 different POC- and woman-owned businesses during the study period. However, only 79 of those businesses, or approximately 10 percent of them, accounted for 75.1 percent of those dollars.

Figure 11-2.
Utilization analysis
results for Caltrans work

Notes:

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

For more detail, see Figure E-1 in Appendix E.

Source:

BBC utilization analysis.

Business group	Utilization
White woman-owned	8.6 %
Asian Pacific American-owned	4.1 %
Black American-owned	0.7 %
Hispanic American-owned	8.9 %
Native American-owned	1.6 %
Subcontinent Asian American-owned	0.7 %
Total POC-owned	16.0 %
Total POC- and woman-owned	24.7 %

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 types that it creates an undue burden on non-DBEs in those work types. Such measures may include:

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

BBC investigated potential overconcentration in Caltrans' USDOT-funded contracts and procurements. There were nine subindustries in which certified DBEs accounted for 50 percent or more of total subcontract dollars for project Caltrans awarded between January 1, 2020 and December 31, 2023:

- Trucking, hauling, and storage (88%);
- Traffic control and safety (87%);
- Building construction (72%);
- Transportation planning services (61%);
- Other construction materials (60%);
- Testing and inspection (60%);
- Other professional services (58%);
- Surveying and mapmaking (54%); and
- Construction management (53%).

Those calculations are based only on subcontract dollars and do not include work that prime contractors self-performed in those areas. If BBC had included self-performed work in those calculations, the percentages for which DBEs accounted would likely have decreased. Caltrans should consider reviewing similar information and continuing to monitor the above types of work for potential overconcentration in the future.

3. Disparities between participation and availability. The crux of the disparity study was to assess whether any disparities exist between the participation and availability of California-based POC- and woman-owned businesses for Caltrans work. A *substantial disparity* between participation and availability—that is, a disparity where participation is 80 percent or less of availability—for a particular business group is interpreted by courts as an *inference of discrimination* against that group in the marketplace and often serves as evidence that the organization could consider using *race- or gender-based measures* to address corresponding barriers for that group. Figure 11-3 presents a visualization of various project sets for which relevant POC- and woman-owned business groups exhibited substantial disparities, as indicated by black circles. As shown in Figure 11-3, POC- and woman-owned businesses showed substantial disparities across various project sets BBC examined as part of the disparity study. Of particular interest is that all groups of POC- and woman-owned businesses, except Native American-owned businesses, exhibited substantial disparities on non USDOT-funded work Caltrans awarded during the study period, which the agency awarded without the use of any race- or gender-based contracting measures.² Outcomes on projects an agency awards without the use of race- or gender-based measures is the best indication of barriers POC- and woman-owned businesses face as part of the agency’s contracting and procurement, because such results are not impacted by measures specifically designed to increase the participation of POC- and woman-owned businesses in the agency’s work.

a. Statistical outliers. An often observed characteristic of income and wealth data—which are very similar in nature to data on contract and procurement dollars—is that the underlying distributions are heavily skewed in the positive direction, usually caused by a small number of extreme values, or *statistical outliers*.^{3, 4} The presence of skewed distributions and statistical outliers can have substantial effects on measures of inequity, poverty, and disparities, sometimes masking evidence of disparities or inequities that truly exist for the rest of the population.^{5, 6} For that reason, as standard practice, researchers identify statistical outliers when working with such data and use procedures to account for

² Caltrans does not use race- or gender-based measures in awarding non USDOT-funded contracts or procurements because of Proposition 209, which prohibits Caltrans from using such measures in awarding work that does not include USDOT funds.

³ <https://thedocs.worldbank.org/en/doc/248311593193853901-0050022020/render/lecture12final.pdf>

⁴ Alvarez, E. and Garcia-Fernandez, R.M., et al. 2014. “The effect of outliers on the economic and social survey on income and living conditions.” *International Scholarly and Scientific Research & Innovation*, 8(10): 3276–3280.

⁵ Cowell, F.A., and Flachaire, E. (2007) “Income distribution and inequality measurement: The problem of extreme values. *Journal of Econometrics*, 141(2): 1044-1072.

⁶ Hlasny, V. and Verme, P. (2018). “Top incomes and inequality measurement: A comparative analysis of correction methods using the EU SILC data.” *Econometrics*, 6(30).

them.^{7, 8, 9, 10} To that point, as part of the utilization analysis, BBC observed that 10 percent of the POC- and woman-owned businesses that participated in Caltrans work during the study period accounted for 75.1 percent of all the dollars Caltrans awarded to POC- and woman-owned businesses.

Figure 11-3.
Substantial disparities observed for Caltrans work

Contract set	Business group							
	All POC and white woman	White woman	All POC	Asian Pacific American	Black American	Hispanic American	Native American	Subcontinent Asian
All work	●		●	●	●	●		●
Construction	●		●	●	●	●		●
Professional services	●	●			●		●	●
Prime contracts	●	●	●	●	●	●		●
Subcontracts			●	●		●		●
USDOT			●	●	●	●		●
Non-USDOT	●	●	●	●	●	●		●

Notes: ● indicates substantial disparity (i.e., disparity index of 80 or less)

"All POC and white women" and "All POC" aggregate the participation and availability for relevant POC- and woman-owned business groups to assess whether those groups in aggregate exhibit substantial disparities.

Source: BBC disparity analysis.

In accordance with best practices in social science, BBC assessed whether any POC- or woman-owned businesses to which Caltrans awarded work during the study period represented statistical outliers based on the dollars the agency awarded to them during the study period and what impact any such outliers had on disparity analysis results. Although we identified five POC- and woman-owned businesses that met the criteria for being considered outliers, accounting for them in our analyses did not change the results in meaningful ways. Thus, the results we present throughout the report include the data from those five businesses without any adjustment.¹¹

b. Comparisons to 2021 Caltrans disparity study. BBC last conducted a disparity study for Caltrans in 2021, primarily related to the agency's implementation of the Federal DBE Program. It is instructive to compare disparity indices for POC- and woman-owned businesses in Caltrans work between the 2024 and 2018 disparity studies to assess whether outcomes are improving for those businesses in Caltrans work over time.

i. USDOT-funded projects. Figure 11-4 presents disparity indices for POC- and woman-owned businesses for the USDOT-funded work we analyzed as part of the 2024 and 2021 disparity studies. As shown in Figure 11-4, most relevant groups of POC- and woman-owned business groups exhibited smaller

⁷ Cowell, F.A. and Victoria Feser, M.P. 2002. "Welfare ranking in the presence of contaminated data," *Econometrica*, 70: 1221-1233.

⁸ Gravelle, H. and Sutton, M. 2006. "Income, relative income, and self-reported health in Britain 1979-2000," *Center for Health Economics Research Paper*, 10.

⁹ Grubbs, F.E. (1969). "Procedures for detecting outlying observations in samples," *Technometrics*, 11(1): 1-21.

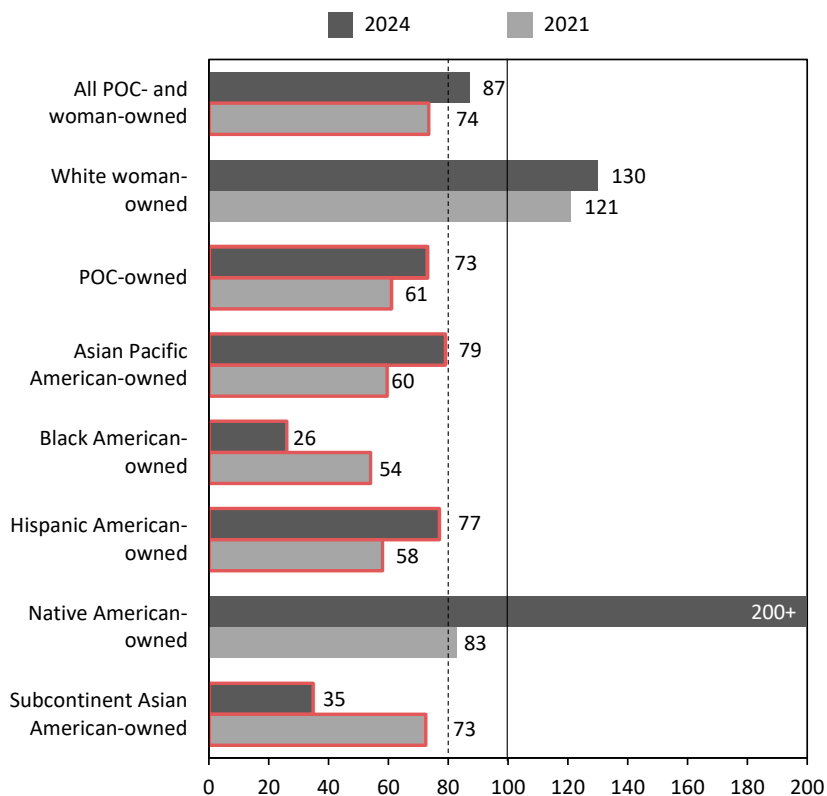
¹⁰ Blaine, Bruce E. (2018). "Winsorizing," *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*, 1817-1818.

¹¹ BBC also examined whether any of the data for any businesses in the availability analysis met the criterion for being considered outliers, but none of them did.

disparities on USDOT-funded projects in 2024 disparity study than in 2021 disparity study (i.e., larger disparity indices in 2024). The two exceptions were Black American-owned businesses and Subcontinent Asian American-owned businesses, both of which exhibited larger disparities for that work in the 2024 study than in 2021 study (i.e., smaller disparity indices in 2024). However, all the groups that showed substantial disparities for Caltrans' USDOT-funded contracts and procurements in 2021 continued to show substantial disparities in 2024: Asian Pacific American-, Black American-, Hispanic American-, and Subcontinent Asian American-owned businesses.

Figure 11-4.
Disparity indices for
USDOT-funded work
from the 2024 and 2021
disparity studies

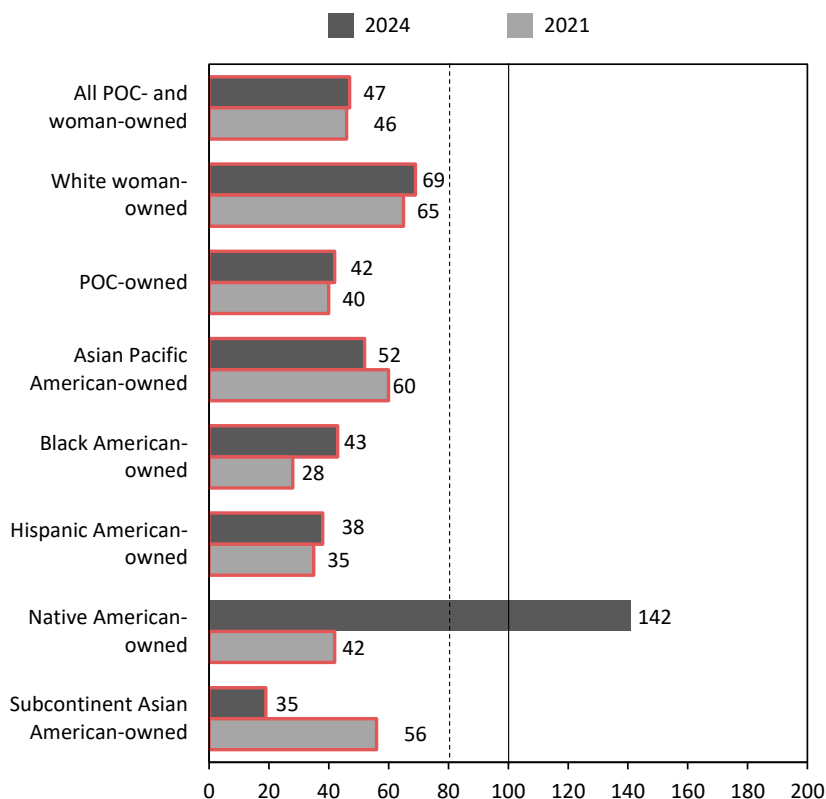
Source:
BBC disparity analysis from 2024
and 2021 Caltrans disparity studies



ii. Non USDOT-funded projects. Figure 11-5 presents disparity indices for the non USDOT-funded work BBC analyzed as part of the 2024 and 2021 Caltrans disparity studies. As described above, Caltrans does not use any race- or gender-based measures to award non USDOT-funded contracts or procurements, so outcomes on those projects are the best indication of barriers POC- and woman-owned businesses face as part of the agency's contracting and procurement. As shown in Figure 11-5, disparity analysis results for Caltrans' non USDOT-funded work were remarkably similar between the 2024 and 2021 disparity studies. All relevant groups of POC- and woman-owned businesses, except Native American-owned businesses, showed substantial disparities for the non USDOT-funded projects Caltrans awarded in both the 2024 and the 2021 disparity studies. Although Native American-owned businesses showed substantial disparities for Caltrans' non USDOT-funded projects in the 2021 disparity study, they did not show a disparity in the 2024 disparity study. Results for Native American-owned businesses notwithstanding, the results in Figure 11-5 generally indicate that when Caltrans does not use race- or gender-based measures as part of awarding contracts and procurements, POC- and woman-owned businesses are substantially underutilized in agency projects relative to their availability for that work.

Figure 11-5.
Disparity indices for non
USDOT-funded work
from the 2024 and 2021
disparity studies

Source:
 BBC disparity analysis from 2024
 and 2021 Caltrans disparity studies



4. Barriers in the marketplace. The United States Supreme Court and other federal courts have held that analyses of conditions for POC- and woman-owned businesses in an organization’s relevant geographic market area are instructive in determining whether the use of race- or gender-based programs as part of the organization’s contracting and procurement processes are appropriate and justified. Barriers in the marketplace likely have important effects on the ability of POCs and women to start businesses in relevant industries and operate them successfully. Any difficulties they face in starting and operating businesses in the region may reduce the availability of POC- and woman-owned businesses for the organization’s work and their ability to successfully compete for and perform that work. BBC’s analyses of marketplace conditions in relevant California industries indicate that POCs, women, POC- and woman-owned businesses face various barriers in the region in terms of acquiring human capital, accruing financial capital, owning businesses, and operating successful businesses. In addition, there is evidence that those disparities exist even after accounting for various other factors such as age, income, education, familial status, industry, and business age.

B. Guidance

The disparity study provides substantial information Caltrans should examine as it considers potential refinements to its implementation of the Federal DBE Program and other efforts to further encourage the participation of POC- and woman-owned businesses in agency contracts and procurements. BBC presents several recommendations for the agency’s consideration.

1. Overall DBE goal. As part of its implementation of the Federal DBE Program, every three years, Caltrans is required to set an overall aspirational goal for the participation of certified DBEs in its USDOT-funded projects. USDOT requires agencies to use a two-step process in setting their overall DBE goals: 1) establish *base figures* for their goals that reflect the current availability of DBEs for the USDOT-

funded projects the agencies award; and 2) consider whether adjustments to their base figures are warranted (referred to as *step 2 adjustments*) to account for current conditions in their marketplaces and other relevant factors.

a. Base figure. As part of the disparity study, BBC assessed the availability of *potential DBEs*—POC- and woman-owned businesses that are either currently certified as DBEs or could become certified based on revenue requirements set forth in Title 49 Code of Federal Regulations Part 26—for the USDOT-funded contracts and procurements Caltrans awarded during the study period. That analysis indicated that the availability of potential DBEs for that work is 27.7 percent, which the agency could consider as the base figure for its next overall DBE goal.

b. Step 2 adjustment. Caltrans should also examine various factors to determine whether an adjustment to its base figure is warranted to account for any characteristics of the California marketplace that might affect the ability of DBEs to participate in its USDOT-funded work. USDOT sets forth several factors Caltrans could consider when assessing whether to adjust its base figure:

- Past participation of DBEs in its USDOT-funded projects;
- Information related to employment, business ownership, education, training, and unions;
- Information related to financing, bonding, and insurance; and
- Other relevant information.

BBC provides information relevant to each of those factors in Chapter 10. If Caltrans decides that an adjustment to its base figure is warranted, it would have to decide which factors it would consider in making an adjustment as well as the direction and the magnitude of the adjustment based on its assessment of those factors. Caltrans is not required to make an adjustment to its base figure, but it is required to explain its decision to USDOT as part of its goal-setting process.

2. DBE contract goals. As part of its implementation of the Federal DBE Program, Caltrans uses race- and gender-based DBE contract goals to encourage the participation of certified DBEs in some, but not all, of its USDOT-funded projects. The agency must ensure its use of DBE contract goals meets the requirements of the *strict scrutiny* standard of constitutional review, including showing a *compelling governmental interest* for their use and ensuring their use is *narrowly tailored* to program objectives. In addition, prior to using DBE contract goals, Caltrans must consider whether it has maximized its use of race- and gender-neutral measures, including fully leveraging its existing race- and gender-neutral measures and considering whether additional race- and gender-neutral measures might help sufficiently address the underutilization of POC- and woman-owned businesses in its work.

a. Continued use of goals. Because Caltrans already uses myriad race- and gender-neutral measures to encourage the participation of small businesses—including many POC- and woman-owned businesses—in its work, and because the use of those measures alone have not addressed disparities for POC- and woman-owned businesses (see Figures 11-3 and 11-5), the agency should consider continuing to use DBE contract goals to award certain USDOT-funded projects. To do so, Caltrans would continue to set percentage goals for the participation of certified DBEs in individual USDOT-funded projects it awards. It would base those goals on the availability of POC- and woman-owned businesses for the types of work involved in each project, and, as a condition of award, bidders would have to make *good faith efforts*

(GFEs) to meet those goals in one of three ways: 1) being certified DBEs themselves and counting their own participation toward meeting the goal; 2) making subcontracting commitments to certified DBEs; or 3) demonstrating that they took necessary and reasonable steps to meet the goal, even if they were not fully successful in doing so.

Because DBE contract goals would be based on the availability of POC- and woman-owned businesses for the types of work involved in the project as well as on other relevant factors (e.g., other contracting demands in the marketplace, recent business closures or changes, and the size of the contract or procurement opportunity), goals should vary from project to project and can sometimes be 0 percent. Moreover, Caltrans does not have to set goals on every USDOT-funded contract or procurement it awards. For example, it could decide only to do so on relatively large projects because of relatively large availability of POC- and woman-owned businesses for the work involved or in certain regions of the state because of contracting demands in other regions of the state.

b. Eligibility of specific groups to participate in the program. One of the primary reasons for conducting a disparity study is to assess whether POC- or woman-owned business exhibit substantial disparities (i.e., disparity indices of 80 or less) between participation and availability for an organization's work, which many courts have considered inferences of discrimination against particular business groups in the agency's contracting and procurement and may support the use of race- and gender-based measures.¹² BBC observed substantial disparities between the participation and availability of all relevant groups of POC- and woman-owned businesses—White woman-, Asian Pacific American-, Black American-, Hispanic American-, Native American-, and Subcontinent Asian American-owned businesses—across different sets of contracts and procurements Caltrans awarded during the study period, indicating that Caltrans' continued use of DBE contract goals may be warranted for business groups that are substantially underutilized relatively to their availability for agency work.

A common way for organizations to make decisions about implementing race- and gender-based measures and which groups are eligible to participate in them is by basing those decisions on outcomes for POC- and woman-owned businesses on projects they awarded without the use of any race- or gender-based measures. Results for those projects are not impacted by measures specifically designed to increase the participation of POC- and woman-owned businesses in the agency's work. BBC assessed disparities between the participation and availability of POC- and woman-owned businesses for relevant non USDOT-funded projects Caltrans awarded during the study period, because the agency is prohibited from using any race- or gender-based measures in awarding that work by Proposition 209. As shown in Figures 11-3 and 11-5 above, White woman-, Asian Pacific American-, Black American-, Hispanic American-, and Subcontinent Asian American-owned businesses showed substantial disparities on the non USDOT-funded work Caltrans awarded during the study period. However, Native American-owned businesses did not show a disparity for that work. Caltrans should consider this information carefully when deciding which groups are eligible to participate in its DBE contract goals program.

c. GFE process. One way bidders can meet DBE contract goal requirements when bidding on individual projects is for them to demonstrate that they took all necessary and reasonable steps to meet the goal, even if they were not fully successful in doing so. As part qualitative research the project team

¹² For example, see *Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1041; *Engineering Contractors Association 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).

conducted, several stakeholders shared insights about issues with the GFE process, specifically around the lack of clarity on what constitutes a “good faith effort” and how some bidders only make perfunctory efforts to meet contract goal requirements. For example:

“... And if you don't [meet] the goal, then you're required to provide a good faith effort showing everything you did to try to obtain that goal. The issue there is that the review of the good faith effort is subjective and there's no clear-cut rule book provided by Caltrans on what constitutes a good faith effort. So, a lot of it is trial by error ...”

“We do a search when we do these queries and outreach and 1,300 to 1,500 [businesses] pop up, but we only get the same 50 [businesses] probably at most that bid on these projects. ... A lot of them call and say, 'Get me off your list.'”

“Prime contractors on Caltrans projects, particularly those that have federal funding in them, are required to do outreach to the DBE businesses and most of the time when I get solicitations, they are like a routine mass e-mail, and they give me an extremely short period of time to respond.”

Caltrans should consider assessing the information it provides to bidders about the GFE process and how the agency evaluates the efforts bidders make to meet goal requirements. It might be helpful to bidders and potential subcontractors if Caltrans provided more detailed information about what the agency considers to be genuine and sufficient GFEs and the process it uses to evaluate them (e.g., specific examples of sufficient GFEs, who is responsible for evaluating them, and the “scoring” system the agency uses to evaluate them). In addition, Caltrans might consider providing better resources to help bidders identify appropriate subcontractors for projects in which they are interested. For example, Caltrans could refine its DBE certification database to ensure that it only includes businesses that are interested in being contacted for work opportunities and improve the databases’ search capabilities so that bidders could more effectively limit their searches to potential DBE subcontractors whose characteristics match their project team needs (e.g., by counties in which they work, types of work they perform, and their capacities to take on work). Such changes might make the process less frustrating for bidders seeking to partner with DBE subcontractors and reduce the number of “mass” communications DBE subcontractors receive.

3. Other guidance. Based on study results and the feedback we collected from internal and external stakeholders, BBC identified several contracting policies and supportive services the agency should consider refining or developing to help increase the participation of small businesses—including many POC- and woman-owned businesses—in its work. The considerations we present below are all race- and gender-neutral—that is, they would not include race or gender classifications and might help make it easier for all businesses, or all small businesses, to participate in Caltrans work.

a. Small business set asides. Disparity analysis results indicated substantial disparities for POC- and woman-owned business groups for the prime contracts Caltrans awarded during the study period. As part of BBC’s qualitative research, several business owners indicated that small business set asides would help businesses enter the government sector and compete for relatively small prime contracts. For example:

"If Caltrans recognized ... that the way to support smaller businesses ... it's by giving them work directly and removing the very hierarchy that has created these biases."

"There's major contracts and minor contracts. And some of these [are] minor contracts ... and some of these are major contracts And maybe it's easier to start off with [minor contracts] for small businesses. ... Maybe [Caltrans] can set aside 10, 20, 30 percent of those contracts ... for these small businesses as they grow and try to become ... primes."

Caltrans awards many projects each year through its Minor B Program, which are projects worth less than \$461,000. The agency could consider setting aside some of those projects—or particular parts of them—exclusively for small business competition. In addition, Caltrans could make greater use of the SB/DVBE Option by which it is able to limit solicitations for particular purchases to certified small businesses but that program is limited to “state-funded informal price quotation processes.”¹³ Using small business set asides to include different types of contracts and procurements, USDOT-funded projects, and projects the agency awards through formal bid processes could help a greater number of small businesses work directly with Caltrans and build their technical skills and capacities to perform work as prime contractors on larger projects over time.

b. Microbusiness program. United States Small Business Administration (SBA) size thresholds for small business certification allow gross receipts of up to \$47 million for certain industries. The State of California Department of General Services (DGS) has a microbusiness program for businesses with gross annual receipts of \$5 million or less. In addition, the San Francisco Bay Area Rapid Transit District (BART) has a Micro Small Business Entity certification for businesses whose average gross receipts over the past three years do not exceed \$10 million for construction or \$6 million for professional services, non-professional services, and goods. Caltrans should consider recognizing businesses that are certified as microbusinesses by DGS, BART, or other California organizations and develop program measures specific to them, potentially including additional evaluation points as part of proposal processes, bid reductions as part of construction projects, and microbusiness set asides.

c. Vendor selection. Results from the utilization analysis indicated that a large percentage of the contract and procurement dollars that Caltrans awarded during the study period went to a relatively small number of businesses. In addition, insights from some stakeholders indicated that Caltrans’ contract and evaluation practices often favor large companies that have worked with Caltrans in the past to the detriment of small businesses that have not done so. For example:

"I don't know if that's something that Caltrans could pursue, [but as part of some federal programs] there's opportunities to negotiate directly to create an opportunity that would be [for] new entrants into Caltrans [work]. Where it's a short list of a smaller group where it's not just an open, competitive bid, but narrowing down ... to increase the competitive nature of a new entrant to Caltrans."

To expand the number of small businesses—including many POC- and woman-owned businesses—that participate in Caltrans work, the agency could consider using evaluation preferences or benefits to encourage businesses that have never worked with the agency in the past to compete for its contract or procurement opportunities, either as prime contractors or as subcontractors. For example, as part of the

¹³ <https://dot.ca.gov/programs/procurement-and-contracts/become-a-certified-business>

bid process, the state could ask prime contractors to submit information about the efforts they made to identify and team with businesses that have never performed work on Caltrans projects in the past. The agency could then award evaluation points or bid reductions based on the degree to which prime contractors partner or attempt to partner with small businesses new to Caltrans work. Caltrans could also consider setting aside certain small projects for exclusive competition among small businesses that have never worked with the agency before. Finally, Caltrans could consider efforts to expand its base of small businesses and POC- and woman-owned businesses through additional outreach, including by using vendor information BBC collected and compiled as part of the disparity study.

d. Unbundling projects. In general, small businesses—including many POC- and woman-owned businesses—exhibited reduced availability for relatively large projects Caltrans awarded during the study period. In addition, as part of qualitative research the project team conducted, several business owners reported that the typical size of projects Caltrans awards are too large for most small businesses to realistically pursue. For example:

"Instead of hav[ing] a huge project where your contract is going to be big ... divide those in sections so smaller companies can have a piece That's something that I noticed too, that [Caltrans] projects [are] too big. ... We can't do it 'cause it's too big for us."

"I'm literally asking [Caltrans] that every time. 'Can I get a smaller scope of the grubbing and clearing?' 'No, we want it all at once.'"

To further encourage the participation of small businesses in its work, Caltrans should consider making efforts to unbundle relatively large prime contracts, and even subcontracts, into many, smaller pieces. Breaking up large prime contracts into multiple projects could also benefit small- or medium-sized businesses that typically perform work as subcontractors, giving them more opportunities to perform work as prime contractors while also easing some of the burdens associated with doing so, such as those related to financing, bonding, insurance, and workforce development.

e. DBE Council. Caltrans has established a Small Business Council (SBC) to encourage the participation of small businesses in the agency's work and provide a forum for stakeholders to share feedback on Caltrans' contracting policies and practices. As part of the qualitative research the project team conducted, some stakeholders expressed a desire for a DBE Council that would better address the specific needs of DBEs. For example:

"I'll mention that another agency in LA ... had created a DBE round table where they conduct meetings with the DBE community [to discuss], 'What's happening? What should be changed and what not?' That's an ongoing thing, which I really commend them for. So other agencies would give an opportunity for this community to have a voice and seat at their table. I think that would be helpful."

The definition of a "small business" typically includes businesses that are vastly different from one another in terms of revenue and number of employees, and thus, it is reasonable to assume that all small businesses do not experience the same issues in the marketplace or within Caltrans' contracting and procurement. Caltrans should consider reviving its DBE Council so that certified DBEs—and organizations that represent them—can share insights about DBEs' specific experiences competing for

and performing work on Caltrans projects. Such viewpoints may differ substantially from feedback Caltrans receives from other small businesses, particularly around issues related to race and gender.

f. Access to capital. As part of BBC's qualitative research process, many business representatives noted difficulties obtaining capital to start, grow, or expand their businesses. Many representatives also commented that having access to capital is crucial to success but obtaining it can be challenging for small businesses. They also discussed how limited access to financing affects their ability to obtain inventory, materials, and staff prior to starting a project. For example:

"I think the biggest challenge we face is funding. So when we get a job, it's really difficult to fund a job until the payments start coming in. Like the prevailing wage is a huge cost, cost of materials, cost of just running a business. It's incredibly difficult, and for disadvantaged businesses, it's even more so, I believe."

"We had to finance the projects when we start the project, like, to pay the employees, to pay the materials and we have to start doing fabrication here in our shop for me and then deliver the steel at the job site to be able to invoice for the first time. And after that we don't see payments sometimes in 60, 90 days. So we've been in a tough situation sometimes, because when you have more than one project, and especially if you start all those at the same time, it's the same situation. You have to pay upfront for all this and then wait for the first payment to come in."

"It comes down to money and the resources. And the little guys don't have these resources. And that's never going to change unless Caltrans puts the money up for us to be able to bid, pay for our bond, pay for this, or not necessarily pay, but give us. ... There has to be an incentive, something that we get."

Caltrans could consider providing guarantees for small business loans, working with lenders to facilitate contract-backed loans for small businesses, and hosting lender fairs so businesses can build relationships with banks that serve California businesses. It could develop such programs with the support of local, regional, or statewide financial institutions or other business assistance organizations. For example, the City of Los Angeles, the SBA, and the Maryland Department of Transportation (DOT) have programs in place to provide loan guarantees. In addition, the Mississippi Development Authority, the Arkansas Economic Development Commission, and the City of Philadelphia implement contract-backed loan programs. The Maryland DOT also provides term loans, lines of credit, and equity investments itself, which could serve as a model for Caltrans' consideration. In addition, the agency could explore the feasibility of developing a program to provide mobilization funds to small businesses beginning work on its projects so that doing so does not create undue financial burdens for them or hinder their ability to begin other projects.

APPENDIX A.

Definitions of Terms

Appendix A defines terms useful to understanding the 2024 California Department of Transportation (Caltrans) Disparity Study 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 (DBE). The objectives of CFR Part 26 are to:

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

Availability Analysis

An availability analysis assesses the percentage of dollars one might expect a specific group of businesses to receive on contracts or procurements a particular agency awards. The availability analysis in this study is based on the match between various characteristics of potentially available businesses and prime contracts and subcontracts Caltrans awarded during the study period.

Business

A business is a for-profit enterprise, including sole proprietorships, corporations, professional corporations, limited liability companies, limited partnerships, limited liability partnerships, and other business structures. The definition includes the headquarters of the organization as well as all its other locations, as applicable.

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. As a USDOT fund recipient, Caltrans is required to implement the Federal DBE Program. It also operates the Unified Certification Program and is one of the agencies responsible for DBE certification throughout California.

Commercially Useful Function

A commercially useful function refers to a business performing real and distinct work for which it has demonstrable skills, experience, and responsibilities. Businesses that prime contractors use to meet contract goals are often required to demonstrate that they will serve commercially useful functions on applicable projects.

Compelling Governmental Interest

As part of the strict scrutiny standard of constitutional review, a government agency must demonstrate a compelling governmental interest in remedying any identified barriers or discrimination in order to implement race-conscious measures. That is, an agency that uses race-conscious measures as part of a contracting program has the initial burden of showing evidence of barriers or discrimination—including statistical and anecdotal evidence—that supports the need for such measures. The agency must assess such discrimination within its own relevant geographic market area (RGMA).

Construction

Construction refers to the construction, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other real property. “Buildings, structures, or other real property” includes bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, cemeteries, pumping stations, railways, airport facilities, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, canals, channels, and other structures.

Consultant

A consultant is a business that performs professional services work.

Contract

A contract is a legally binding relationship between the seller of goods or services and a buyer. The study team sometimes uses the term *contract* interchangeably with *procurement* or *project*.

Contract Element

A contract element is either a prime contract or subcontract.

Contract Goals

Contract goals are often a race- or gender-conscious effort whereby organizations set percentage goals for the participation of person of color (POC)- or woman-owned businesses in individual contracts or procurements they award. As a condition of award, prime contractors have to meet contract goals as part of their bids, quotes, or proposals by making participation commitments with eligible, certified businesses, or, if they fail to do so, by demonstrating they made genuine and sufficient good faith efforts to do so. The use of contract goals as they apply to POC- and woman-owned businesses must meet the strict scrutiny and intermediate scrutiny standards of constitutional review, respectively.

Contractor

A contractor is a business that performs construction work.

Control

Control means exercising management and executive authority over a business.

Custom Census Availability Analysis

A custom census availability analysis is one in which researchers attempt surveys with potentially available businesses working in the RGMA to collect information about their characteristics. Researchers then take survey information about potentially available businesses and match them to the characteristics of prime contracts and subcontracts an agency actually awarded during the study period to assess the percentage of contract and procurement dollars one might expect an agency to award to a specific group of businesses. A custom census approach is accepted in the industry as the preferred method for conducting availability analyses, because it takes various characteristics of businesses and agency projects into account.

Disadvantaged Business Enterprise (DBE)

A DBE is a business certified to be owned and controlled by one or more individuals who are socially and economically disadvantaged according to the guidelines in 49 CFR Part 26. The following groups are presumed to be socially and economically disadvantaged according to the Federal DBE Program:

- Asian Pacific Americans;
- Black Americans;
- Hispanic Americans;
- Native Americans;
- Subcontinent Asian Americans; and
- Women of any race or ethnicity.

A determination of economic disadvantage includes assessing businesses' gross revenues (maximum revenue limits ranging from \$7 million to \$30.72 million depending on work type) and business owners' personal net worth (maximum of \$2.047 million excluding equity in a home, leased cars, and in the business). Some POC- 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 set forth in 49 CFR Part 26.

Disparity

A disparity is a difference between an actual outcome and some benchmark such that the actual outcome is less than the benchmark. In this report, *disparity* refers specifically to a difference between the participation of a specific group of businesses in Caltrans work and the estimated availability of the group for that work.

Disparity Analysis

A disparity analysis examines whether there are any differences between the participation of a specific group of businesses in agency contracts and procurements and the estimated availability of the group for that work.

Disparity Index

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

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).

Federal Disadvantaged Business Enterprise (DBE) Program

The Federal DBE Program was established by the USDOT after enactment of the Transportation Equity Act for the 21st Century (TEA-21) as amended in 1998. It is designed to increase the participation of POC- and woman-owned businesses in USDOT-funded contracts. Regulations for the Federal DBE Program are set forth in 49 CFR Part 26.

Federal Highway Administration (FHWA)

FHWA is an agency of USDOT that works with state and local governments to construct, preserve, and improve the National Highway System, other roads eligible for federal aid, and certain roads on federal and tribal lands.

FHWA-funded Contract

An FHWA-funded contract is any contract or project funded in whole or in part with FHWA financial assistance, including loans. The study team considered a contract to be FHWA-funded if it included at least \$1 of FHWA funding

Firm

See *business*.

Industry

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

Inference of Discrimination

An inference of discrimination is the conclusion that businesses whose owners identify with particular race or gender groups suffer from barriers or discrimination in the marketplace based on sufficient quantitative or qualitative evidence. When inferences of discrimination exist, government organizations sometimes use race- or gender-conscious measures to address barriers affecting those businesses.

Intermediate Scrutiny

Intermediate scrutiny is the legal standard an agency's use of gender-conscious measures must meet to be considered constitutional. It is more rigorous than the rational basis test, which applies to business measures unrelated to race or gender, but less rigorous than the strict scrutiny test, which applies to business measures related to race. In order for a gender-conscious program to comply with

intermediate scrutiny, it must serve an important government objective, and it must be substantially related to achieving that objective.

Narrow Tailoring

As part of the strict scrutiny standard of constitutional review, a government organization must demonstrate its use of race-conscious measures is narrowly tailored. There are several factors a court considers when determining whether the use of such measures is narrowly tailored, including:

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

Participation

See *utilization*.

Person of Color (POC)

A POC is an individual who identifies with one of the following race groups: Asian Pacific American, Black American, Hispanic American, Native American, Subcontinent Asian American, or other non-White race group.

POC-owned Business

A POC-owned business is a business with at least 51 percent ownership and control by individuals who identify with one of the following race groups: Asian Pacific American, Black American, Hispanic American, Native American, Subcontinent Asian American, or other non-White race group. The study team considered businesses owned by POC men or POC women as POC-owned businesses. A business does not have to be certified as a DBE to be considered a POC-owned business in this study.

Potential DBE

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

Prime Consultant

A prime consultant is a professional services business that performs professional services prime contracts directly for end users, such as Caltrans.

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 construction business that performs prime contracts directly for an end user, such as Caltrans.

Procurement

See contract or project.

Professional Services

Professional services refers to the professional, scientific, or technical services that require a high degree of expertise and training. Frequently—but not always—individuals that perform professional services are required to have a license or specific educational background. Examples of professional services include legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.

Project

A project refers to a construction or professional services endeavor an agency bids out. A project could include one or more prime contracts and corresponding subcontracts. The study team sometimes uses the term project interchangeably with *contract* or *procurement*.

Proposition 209

Proposition 209, which California voters passed in 1996 and became effective in 1997, amended Section 31, Article 1 of the California Constitution to prohibit discrimination and the use of race- and gender-based preferences in public contracting, public employment, and public education. Thus, Proposition 209 prohibits government agencies in California—including Caltrans—from using race- or gender-conscious measures when awarding state-funded contracts. Proposition 209 does 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,” which is why Caltrans can legally use race- and gender-conscious measures as part of its implementation of the Federal DBE Program.

Qualitative Information

Qualitative information includes personal anecdotal accounts and perceptions of specific incidents—including any incidents of discrimination—shared by individual interviewees, public meeting participants, focus group participants, and other stakeholders in the California marketplace.

Race- and Gender-conscious Measures

Race- and gender-conscious measures are contracting measures designed to increase the specific participation of POC- and woman-owned businesses in government work. Businesses owned by

individuals who identify with particular race groups might be eligible for such measures whereas others would not. Similarly, businesses owned by individuals who identify as women might be eligible for such measures whereas businesses owned by individuals who identify as men would not. An example of race- and gender-conscious measures is an organization's use of POC- or woman-owned business contract goals in awarding individual contracts or procurements.

Race- and Gender-neutral Measures

Race- and gender-neutral measures are measures designed to remove potential barriers for businesses attempting to perform work with an agency, regardless of the race or gender of the owners. Race- and gender-neutral measures might include assistance in overcoming bonding and financing obstacles, simplifying bidding procedures, providing technical assistance, and establishing programs to assist start-ups.

Rational Basis

Government agencies that implement contracting programs that rely only on race- and gender-neutral measures must show a rational basis for their programs. Showing a rational basis requires agencies to demonstrate that their contracting programs are rationally related to a legitimate government interest. It is the lowest threshold for evaluating the legality of government contracting programs.

Relevant Geographic Market Area (RGMA)

The RGMA is the geographic area in which the businesses to which agencies award most of their contracting dollars are located. Case law related to contracting programs and disparity studies requires analyses to focus on the RGMA. The RGMA for the disparity study is the state of California.

State-funded Project

A state-funded project is any contract or procurement wholly funded by state sources. That is, the project does not include any USDOT or 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. In other words, 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 a government agency's use of race-conscious measures must meet to be considered constitutional. Strict scrutiny is the highest threshold for evaluating the legality of measures that might impinge on the rights of others, short of prohibiting them altogether. Under the strict scrutiny standard, an organization must:

- Have a compelling governmental interest in remedying past identified discrimination or its present effects; and

- Establish that the use of any such measures is narrowly tailored to achieve the goal of remedying the identified discrimination.

An organization's use of race-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.

Study Period

The study period is the time period on which the study team focused for the utilization, availability, and disparity analyses. The study period for the disparity study was January 1, 2020 to December 31, 2023. Caltrans had to have awarded a contract or procurement during the study period for it to be included in the study team's analyses.

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 project.

Subcontractor

A subcontractor is a business that performs services for prime contractors as part of larger contracts or projects.

Subindustry

A subindustry is a specific classification for businesses providing related goods or services within a particular industry (e.g., *highway and street construction* is a subindustry of *construction*).

Substantial Disparity

A substantial disparity is a disparity index of 80 or less, indicating that the actual participation of a specific business group in agency work is 80 percent or less of the group's estimated availability. Substantial disparities are considered *inferences of discrimination* in the marketplace against particular business groups. Government organizations sometimes use substantial disparities as justification for the use of race- or gender-conscious measures to address barriers affecting certain groups.

Utilization

Utilization refers to the percentage of total dollars associated with a particular set of contracts or procurements Caltrans awarded to a specific group of businesses during the study period. The study team uses the term *utilization* synonymously with *participation*.

Woman-owned Business

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

APPENDIX B.

Legal Appendix

The California Department of Transportation (Caltrans) implements the Federal Disadvantaged Business Enterprise (DBE) Program for its contracts funded by the Federal Highway Administration (FHWA) of the United States Department of Transportation (USDOT). Transportation agencies that receive more than \$670,000 in federal transportation funding must adopt and implement their DBE program in compliance with 49 Code of Federal Regulations (CFR) Part 26 and constitutional requirements. In the context of government contracting and procurement in the national transportation industry, race- and gender-conscious measures permitted by Part 26 are efforts designed by Congress to specifically address and mitigate identified race- and gender-based discrimination faced by certified businesses owned and controlled by people of color (POCs) and women, as defined in Part 26, Section 1.¹

The below summary is primarily focused on Ninth Circuit Court of Appeals and California court caselaw regarding a state or local transportation agency's efforts to address race- or gender-based discrimination in USDOT-funded contracts.²

A. Federal Constitutional Law

When a state or local governmental entity seeks to comply with the Federal DBE Program and uses race- or gender-conscious programmatic measures, the governmental action is subject to judicial scrutiny to determine if the state or government agency's implementation of the Federal DBE Program runs afoul of the Fifth and Fourteenth Amendments to the United States Constitution.

In *Adarand Constructors, Inc. v. Peña* (*Adarand*), the United States Supreme Court held that federal affirmative action programs that use racial and ethnic criteria as a basis for decision-making are subject to *strict scrutiny*.³ Strict scrutiny is the most rigorous legal analysis that the federal courts can apply to a governmental policy or legislation. For the governmental action to survive strict scrutiny, the government must show a *compelling governmental interest* in using race-conscious measures and ensure that their use is *narrowly tailored*.⁴ Strict scrutiny is necessary "to ensure that the personal right to equal protection has not been infringed."⁵

Gender-conscious programs are subject to *intermediate scrutiny*, which is a less burdensome standard of review than strict scrutiny. Under this standard, the government must show the gender-based program

¹ "POC-owned business" is used interchangeably with "DBE" in some contexts.

² The Ninth Circuit Court of Appeals is the federal appellate court with jurisdiction over the State of California.

³ 515 U.S. 200 (1995).

⁴ *City of Richmond v. Croson*, 488 U.S. 469 (1989).

⁵ *Adarand Constructors, Inc. v. Peña*, 515 U.S. at 227.

is “supported by an ‘exceedingly persuasive justification’ and substantially related to the achievement of that underlying objective.”⁶

A race or gender-neutral classification, such as a small or emerging business enterprise contracting preference, is subject to the *rational basis* test. Rational basis is the correct level of judicial scrutiny when a constitutional challenge is to a program or statute which does not involve a fundamental right or a suspect class.⁷ Under this standard, the court determines whether the government program is rationally related to a legitimate government purpose.⁸

1. Strict scrutiny. In the seminal case of *City of Richmond v. Croson* (*Croson*), the United States Supreme Court determined that state and local racial preference programs are subject to strict scrutiny under the Fourteenth Amendment Equal Protection Clause.⁹ After *Croson*, the Supreme Court decided *Adarand*, where the Court concluded that the Federal DBE Program would be subjected to the same level of scrutiny under the equal protection components of the Fifth Amendment.¹⁰ The court held that the “equal protection analysis in the Fifth Amendment area is the same as that under the Fourteenth Amendment,” thereby subjecting the Federal DBE program to strict scrutiny.¹¹ Notably, in *Students for Fair Admissions, Inc. v. President and Fellows of Harvard College*, the Supreme Court’s most recent Equal Protection Clause ruling, the high court reaffirmed that strict scrutiny is the appropriate judicial review standard for racial classifications.¹²

The Supreme Court has held that classifications based on race are subject to strict scrutiny and “are constitutional only if they are narrowly tailored measures that further compelling governmental interests.”¹³ The Ninth Circuit has held that strict scrutiny applies to a state or local agency’s implementation of the Federal DBE Program when race-conscious classifications are used.¹⁴ “For a racial classification to survive strict scrutiny [...] it must be a narrowly tailored remedy for past discrimination, active or passive, by the governmental entity making the classification.”¹⁵

a. Compelling government interest. Several federal appellate circuits have upheld the facial constitutionality of the Federal DBE Program.¹⁶ In 2000, the Tenth Circuit in *Adarand Constructors, Inc. v. Slater* held that the government had presented a “strong basis in evidence” supporting the Federal DBE

⁶ *Associated Gen. Contractors of Am. v. Cal. DOT*, 713 F.3d 1187, 1195 (9th Cir. 2013) (citing, *inter alia*, *United States v. Virginia*, 518 U.S. 515, 524 (1996)). Part 26 requires that a grant recipient’s implementation of the Federal DBE Program have gender-conscious components. Under the Part 26 regulations, women are rebuttably presumed to be “socially and economically disadvantaged” in the same manner as the racial classifications. 49 C.F.R. § 26.67(a)(1).

⁷ *Heller v. Doe*, 509 U.S. 312, 319-320 (1993). Under 49 C.F.R. § 26.39 a state or local governmental entity must establish a race-neutral small business element as a part of its DBE program.

⁸ *Crawford v. Antonio B. Won Pat Int’l Airport Auth.*, 917 F.3d 1081, 1095 (9th Cir. 2019).

⁹ *City of Richmond v. J.A. Croson Co.*, 488 U.S. at 493-94.

¹⁰ *Adarand Constructors v. Peña*, 515 U.S. at 227.

¹¹ *Id.* at 224 (citing *Buckley v. Valeo*, 424 U.S. 1, 93 (1973)).

¹² 600 U.S. 181, 213 (2023).

¹³ *Adarand Constructors v. Peña*, 515 U.S. at 227.

¹⁴ *Associated Gen. Contractors of Am. v. Cal. DOT*, 713 F.3d at 1195.

¹⁵ *Monterey Mech. Co. v. Wilson*, 125 F.3d 702, 713 (9th Cir. 1997) (citing *Croson*, 488 U.S. at 484-485, 490).

¹⁶ See, e.g., *Adarand Constructors, Inc. v. Slater* (*Adarand VII*), 228 F.3d 1147 (10th Cir. 2000); *Sherbrook Turf, Inc. v. Minnesota Dep’t of Transp.*, 345 F.3d 964 (8th Cir. 2003); *Western States Paving Co. Inc. v. Washington State Dep’t of Transp.*, 407 F.3d 983 (9th Cir. 2005); *Northern Contracting, Inc. v. State of Illinois*, 472 F.3d 715 (7th Cir. 2007).

Program and thus the program passed constitutional muster and was “narrowly tailored to serve a compelling governmental interest.”¹⁷ The Tenth Circuit undertook a lengthy analysis of the evidence put forth by the government and the Department of Justice detailing studies and Congressional hearings.¹⁸ Three years later, in *Sherbrooke Turf, Inv. v. Minn. Dep’t of Trans.*, the Eighth Circuit agreed, holding “[w]hen the program is federal, the inquiry is (at least usually) national in scope...[i]f Congress or the federal agency acted for a proper purpose and with a strong basis in the evidence, the program has the requisite compelling government interest nationwide, even if the evidence did not come from or apply to every State or locale in the Nation.”¹⁹

In 2005, the Ninth Circuit in *Western States Paving Co. v. Washington State DOT (Western States Paving)* weighed in on the issue. There, the court held that a state governmental entity need not provide an independent compelling interest for a DBE program.²⁰ The court stated that when Congress enacted the Transportation Equity Act for the 21st Century (TEA-21), which was promulgated to implement, among other things, the Federal DBE Program, “Congress identified a compelling nation-wide interest in remedying discrimination in the transportation contracting industry.”²¹ Even if the described discrimination does not exist in the governmental entity’s jurisdiction, “the State’s implementation of TEA-21 nevertheless rests upon the compelling nationwide interest identified by Congress.”²²

In 2007, the Seventh Circuit in *Northern Contracting, Inc. v. State of Illinois* held that the Illinois Department of Transportation could rely on the federal government’s compelling interest in implementing its DBE program.²³ More recently, in 2016 the Seventh Circuit addressed the constitutionality of Part 26 in *Midwest Fence Corp. v. United States DOT* and agreed with its sister circuits in holding that the Federal DBE Program serves a “compelling government interest in remedying a history of discrimination in highway construction contracting.”²⁴ The upheld compelling government interest means a state or local governmental entity’s implementation of the Federal DBE Program is protected against a facial challenge.²⁵ The Federal DBE Program and the underlying regulations in 49 CFR Part 26 have changed substantively since both *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.* and *Associated Gen. Contractors of Am. v. Cal. DOT* were decided. The regulatory changes effective May 9, 2024 (Final Rule 2024), account for, reference, and incorporate Congress’ receipt and review of “testimony and documentation from numerous sources which show that discrimination, its

¹⁷ *Adarand Constructors, Inc. v. Slater (Adarand VII)*, 228 F.3d at 1155 (The holding overturned the lower court’s ruling that the federal DBE program was both over- and under-inclusive and thus not narrowly tailored).

¹⁸ *Id.* at 1168-1174.

¹⁹ *Sherbrooke Turf, Inv. v. Minn. Dep’t of Trans.*, 345 F.3d at 970; see also *Northern Contracting, Inc. v. Illinois*, 473 F.3d 715, 721 (7th Cir. 2007).

²⁰ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 997.

²¹ TEA-21 and the USDOT regulations (49 C.F.R. Part 26) implement the federal DBE program. The Federal DBE program has been reauthorized in legislation referred to as MAP-21, SAFETEA, SAFETEA-LU, the Fixing America’s Surface Transportation Act (“FAST Act”), and most recently in the Investment and Jobs Act, Pub. L. 117–58, November 15, 2021, 135 Stat. 429. See also, *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 997. Though most of the caselaw discussed in this appendix references TEA-21 and not subsequent authorizing legislation, the stated legal analysis remains the same.

²² *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 997.

²³ *Northern Contracting, Inc. v. State of Illinois*, 472 F.3d 715 at 721; see also *Dunnet Bay Constr. Co. v. Borggren*, 799 F.3d 676, 694 (7th Cir. 2015) (reaffirming the holding in *Northern Contracting, Inc. v. State of Illinois*).

²⁴ *Midwest Fence Corp. v. United States DOT*, 840 F.3d 932, 936 (7th Cir. 2016).

²⁵ *Associated Gen. Contractors of Am. v. Cal. DOT*, 713 F.3d at 1191; *Midwest Fence Corp. v. United States DOT*, 840 F.3d at 946; *Sherbrook Turf, Inc. v. Minnesota Dep’t of Transp.*, 345 F.3d at 973.

effects, 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.”²⁶

b. Facially narrowly tailored. Like the Seventh, Eighth, and Tenth Circuits,²⁷ the Ninth Circuit has upheld the Federal DBE Program as narrowly tailored to a nationwide compelling interest.²⁸ The court reached this conclusion through the application of the “narrowly tailored” factors established in *US v. Paradise*:²⁹

- Efficacy of alternative remedies;
- Program flexibility;
- Duration of the relief;
- Waiver provisions;
- Relationship of any numerical goals to the relevant labor market; and
- Impact of relief on third parties.³⁰

We examine these factors in detail below.

i. Efficacy of alternatives. The “narrow tailored” prong does not require exhaustion of every conceivable race-neutral alternative, but does “require serious, good faith consideration of workable race-neutral alternatives.”³¹ The Ninth Circuit noted that enabling regulations for the Federal DBE Program give preference to the “use of race-neutral means—including informational and instructional programs targeted toward all small businesses—to achieve a State’s DBE utilization goal.”³²

ii. Program flexibility. A rigid quota system is the “hallmark of an inflexible affirmative action program” that is constitutionally impermissible.³³ The federal regulations for TEA-21 prohibit the use of quotas.³⁴ When the governmental entity uses race-conscious contracting goals, non-disadvantaged prime contractors can meet the goal either by subcontracting work to DBEs or by demonstrating good faith

²⁶ 89 FR 24899.

²⁷ The Kentucky Eastern District Court in the Sixth Circuit has pending before it a constitutional challenge to the federal DBE program. *Mid-America Milling Company v. U.S. Department of Transportation*, 3:2023-cv-00072 (E.D. Ky. 2024).

²⁸ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 995; see also *Associated General Contractors of San Diego v. California Department of Transportation*, 713 F.3d at 1191; *Adarand Constructors, Inc. v. Slater (Adarand VII)*, 228 F.3d at 1155; *Sherbrooke Turf, Inc. v. Minn. Dep’t of Trans.*, 345 F.3d at 973; *Midwest Fence Corp. v. United States DOT*, 840 F.3d at 946.

²⁹ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 993.

³⁰ *Id.* at 993 (citing *United States v. Paradise*, 480 U.S. 149, 171 (1987)); see also *Associated Gen. Contractors, Inc. v. Coal. for Econ. Equity*, 950 F.2d 1401, 1416 (9th Cir. 1991) (addressing MBE programs) (citing *Coral Const. Co. v. King County*, 941 F.2d 910 (9th Cir. 1991) and *Crosen*).

³¹ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 993 (citing *Grutter v. Bollinger*, 539 U.S. 306, 339 (2003)).

³² *Id.* (citing *Sherbrooke Turf, Inc. v. Minn. DOT*, 345 F.3d at 972).

³³ *Id.* at 994.

³⁴ 49 C.F.R. § 26.43.

efforts to find DBEs to subcontract the work to.³⁵ The good faith efforts mechanism in the TEA-21 regulations provides TEA-21 with the requisite flexibility for a system of contracting goals.³⁶

iii. Duration of relief. A narrowly tailored race-conscious program must have a targeted end date to ensure that the program does not extend to a point where it is no longer remedial. The Ninth Circuit has held that TEA-21 satisfied this requirement because the act is subject to periodic reauthorization, which allows Congress to debate whether the “compelling interest continues to justify TEA-21’s minority preference program.”³⁷

iv. Waiver provisions. The waiver provisions that accompany the race-conscious measures of a DBE program must lend itself to the flexibility of the program. The Supreme Court in *Croson* invalidated a waiver system, which only allowed an exemption from the numerical goal where “every feasible attempt has been made to comply, and it [is] demonstrated that sufficient, relevant, qualified Minority Business Enterprises ... are unavailable or unwilling to participate in the contract”³⁸ In contrast, the enabling regulations for TEA-21 allow for waivers to several provisions “including, but not limited to, any provisions regarding administrative requirements, overall goals, contract goals or good faith efforts.”³⁹

v. Relationship of any numerical goals to the relevant labor market. Race-conscious contracting goals must be tailored to the availability of businesses in the agency’s relevant local market, which in many cases is co-extensive with the agency’s geographic boundaries.⁴⁰ The DBE regulations clarify that the 10 percent utilization goal found in the statute is “aspirational” and that States may not “set their own DBE goals at 10 percent by simply relying upon the statute.”⁴¹ The TEA-21 regulations instead provide for each State to establish a DBE utilization goal that is based upon the proportion of ready, willing, and able DBEs in the State’s transportation contracting industry.⁴²

vi. Impact of relief on third parties. The Ninth Circuit acknowledged that the DBE program places a burden on non-disadvantaged businesses, but also referenced Part 26 provisions “designed to minimize the burden on non-minority firms.”⁴³ The court gave two examples. First, a firm owned by a non-minority can qualify as a DBE if the owner can demonstrate that they are socially and economically disadvantaged.⁴⁴ Second, the net worth limitations in the DBE regulations ensures that wealthy minorities do not receive “an unwarranted windfall under the DBE program.”⁴⁵

³⁵ 49 C.F.R. § 26.53.

³⁶ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 994.

³⁷ *Id.* (citing *Sherbrooke Turf, Inc. v. Minn. DOT*, 345 F.3d at 972).

³⁸ *Croson*, 488 U.S. at 478-479.

³⁹ 49 C.F.R. § 26.15; The 2024 Final Rule changes both strengthened the flexibility of and simplified the Federal DBE program; see 49 CFR § 26.67(d) (newly implemented section clarifying steps by which an owner not presumed socially and economically disadvantaged may attain certification).

⁴⁰ *Croson*, 488 U.S. at 491-492.

⁴¹ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp.*, 407 F.3d at 994-995; see also 49 C.F.R. § 26.45(b).

⁴² *Id.*; see also § 26.45(b).

⁴³ *Id.* at 995.

⁴⁴ *Id.*; see also 49 C.F.R. § 26.67(d).

⁴⁵ *Id.*; see also 49 C.F.R. § 26.67(b).

c. State DOT Part 26 compliance requires customized “narrow tailored” approach. While the federal appellate courts have approved the facial constitutionality of Part 26, there is a difference of opinion among the Circuits regarding how state grant recipients must implement Part 26 to comply with the “narrowly tailored” requirement. The Eighth Circuit noted the Federal DBE Program “affords grantee States substantial discretion,” which requires the court to analyze the state’s implementation of the Federal DBE Program.⁴⁶ Under Part 26, the states “set their own goals, based on local market conditions; their goals are not imposed by the federal government nor do recipients have to tie them to any uniform national percentage.”⁴⁷ In the Seventh Circuit case of *Northern Contracting, Inc. v. Illinois*, the court addressed arguments from the plaintiffs that the DBE Program adopted by the Illinois Department of Transportation (IDOT) was unconstitutional because IDOT allegedly did not follow the DBE regulations.⁴⁸ The court found that IDOT complied with the DBE regulations and thus the state’s implementation of the Federal DBE Program was narrowly tailored on its face.⁴⁹ In the Seventh Circuit, “a state is insulated from this sort of constitutional attack [on the basis of narrow tailoring], absent a showing that the state exceeded its federal authority.”⁵⁰

In contrast, the Ninth Circuit in *Western States Paving* held that a state DOT, facing an as-applied equal protection clause challenge, did not pass constitutional scrutiny by simply relying on or implementing the USDOT’s requirements or the programmatic features of the Federal DBE Program.⁵¹ A state’s implementation of its DBE program can be subject to an as-applied constitutional challenge, the court said, despite the facial validity of the enabling federal program.⁵² Applying strict scrutiny, the court in *Western States Paving* upheld the constitutionality of the Federal DBE Program, but struck down the DBE program implemented by Washington State DOT, stating “[w]hether [a governmental entity’s] 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.”⁵³ In order to meet the “narrowly tailored” requirement of *Adarand Constructors, Inc. v. Peña*, the court found that the state, in applying the federal DBE regulations, had to demonstrate evidence of past or present discrimination in its market against each benefited ethnic business group the state included in its DBE program.⁵⁴ In addition, the Ninth Circuit required an assessment of the availability or capacity of each such benefited business entity to perform contractual services.⁵⁵

In sum, while the Federal DBE Program is facially valid, in the Ninth Circuit, Caltrans, as a USDOT grant recipient, cannot simply adhere to the program template established by Part 26. Caltrans must additionally demonstrate that it has complied with *Western States Paving*’s two-prong test for this narrow tailoring analysis: (1) the state must establish the presence of discrimination within its transportation contracting industry; and (2) the remedial program adopted by Caltrans must be “limited

⁴⁶ *Sherbrooke Turf v. Minnesota Dept of Transp*, 345 F.3d at 973.

⁴⁷ *Id.*

⁴⁸ *Northern Contracting, Inc. v. Illinois*, 473 F.3d at 722.

⁴⁹ *Id.* at 722-724.

⁵⁰ *Id.* at 721.

⁵¹ *Western States Paving Co., Inc. v. Washington State Dep’t of Transp*, 407 F.3d at 997; 1002-1003.

⁵² *Id.* at 1002-1003.

⁵³ *Id.* at 997-998.

⁵⁴ *Id.* at 998.

⁵⁵ *Id.* at 999.

to those minority groups that have actually suffered discrimination.”⁵⁶ We turn to an analysis of these two factors.

i. Presence of discrimination in the transportation contracting industry. In equal protection cases, courts accept statistical and anecdotal evidence to help identify the existence of discrimination.”⁵⁷ The federal courts have ruled a “significant statistical disparity” can be sufficient to justify race-conscious remedial programs.⁵⁸ Notably, the Ninth Circuit has rejected the use of statistics comparing contracts awarded to minority businesses with the percentage of minorities in the general population.⁵⁹ To show discriminatory exclusion in a field requiring special skills, the relevant group for comparison is the number of *qualified* minorities and within the relevant local industry.⁶⁰

A proper disparity analysis involves making a comparison between the availability of minority- and woman-owned businesses and their actual utilization, producing a number called a “disparity index.”⁶¹ An index of 100 represents statistical parity between availability and utilization, and a number below 100 indicates underutilization. An index below 80 is considered a substantial disparity that supports an inference of discrimination.⁶² Statistical evidence must assess factors that may affect the relative capacity of DBEs to undertake contracting work.⁶³ A disparity study must consider whether the DBEs are able to undertake available contracting work.⁶⁴

Statistical evidence must account for business entity size, business capability in terms of job size and output, as well as geographic location.⁶⁵ As stated by the court in *Western States Paving*, “DBE firms may be smaller and less experienced than non-DBE firms (especially if they are new businesses started by recent immigrants) or they may be concentrated in certain geographic areas of the State, rendering them unavailable for a disproportionate amount of work.”⁶⁶ In essence, the study needs to probe for possible nondiscriminatory reasons for disparities in the contracting industry.

In *Associated Gen. Contractors of Am. v. Cal. DOT*, the Ninth Circuit approved the disparity analyses performed by BBC Research & Consulting (BBC) that supported Caltrans’ remedial approach to implementing the Federal DBE Program for FHWA-funded contracts. In relevant part, the court noted that the BBC disparity study “showed systematic and substantial underutilization of African American-

⁵⁶ *Associated General Contractors of San Diego v. California DOT*, 713 F.3d at 1191.

⁵⁷ *Id.* at 1196.

⁵⁸ *Id.* (citing *Croson*, 488 U.S. at 509).

⁵⁹ *Associated Gen. Contractors, Inc. v. Coal. for Econ. Equity*, 950 F.2d at 1413 (citing *Croson*, 488 U.S. at 501-502, 504).

⁶⁰ *Id.*

⁶¹ *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT*, 713 F.3d at 1191; see also *H.B. Rowe Co. v. Tippet*, 615 F.3d 233, 243-44 (4th Cir. 2010); *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023, 1041 (Fed. Cir. 2008).

⁶² *Id.*; see also *Midwest Fence Corp. v. United States DOT*, 840 F.3d at 950; *H.B. Rowe Co., Inc. v. Tippet*, 615 F.3d at 244; *Engineering Contrs. Ass’n v. Metropolitan Dade County*, 122 F.3d 895, 914 (11th Cir. 1997).

⁶³ *Western States Paving v. Washington State*, 407 F.3d at 1000; see also *Associated Gen. Contractors of Am. v. Cal. DOT*, 713 F.3d at 1196.

⁶⁴ *Id.*

⁶⁵ *Id.* at 1001.

⁶⁶ *Id.*

Native American-, Asian-Pacific American-, and women-owned firms across a range of contract categories,” supporting an inference of discrimination.⁶⁷

Beyond statistical evidence, courts consider anecdotal evidence (personal accounts of discrimination), although standing alone it is rarely, if ever, sufficient to demonstrate a systemic pattern necessary to support a race-conscious program.⁶⁸ Even so, anecdotal evidence complements statistical evidence because of its ability to bring “the cold numbers convincingly to life.”⁶⁹ Anecdotal evidence need not be verified.⁷⁰

ii. Program must be limited to those who have suffered discrimination. The second “narrow tailored” factor identified by the Ninth Circuit in *Western States Paving* requires that a race-conscious DBE program benefit groups that have suffered discrimination.⁷¹ A disparity study will show which groups, if any, are subject to systematic and substantial underutilization.⁷² The study does not have to differentiate between the separate types of contracts in the contracting industry such as prime contracts and subcontracts or construction and engineering.⁷³ However, the governmental entity seeking to implement a DBE program is required to obtain a waiver of federal regulatory requirements to limit the DBE program’s race- or gender-based measures to the substantially underutilized groups.⁷⁴

B. Passive Participant Theory

In *Croson*, the court stated, “[I]f the city could show that it had essentially become a “passive participant” in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.”⁷⁵ Though the Ninth Circuit has not directly addressed the “passive participant” theory as it pertains to a federal race-conscious program, the Federal and Sixth Circuits have.

In *Rothe Development Corp. v. United States Department of Defense*, the Federal Circuit rejected the argument that the Department of Defense (DOD) was a passive participant in discriminatory market practices based on the fact that the DOD is incredibly large and spends substantial amount of money.⁷⁶ The court stated that, with the amount of money spent nationwide, there may be some marketplace discrimination but probably not enough to “conclude that there was a nationwide pattern or practice of pervasive discrimination by state, local, and private contractors in the relevant contract markets at the relevant time.”⁷⁷

⁶⁷ *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT*, 713 F.3d at 1198-1199.

⁶⁸ *Coral Constr. Co. v. King Cnty.*, 941 F.2d 910, 919 (9th Cir. 1991).

⁶⁹ *Associated Gen. Contractors of Am. v. Cal. DOT*, 713 F.3d at 1196.

⁷⁰ *Id.* at 1197 (discussing and appearing to agree with *H.B. Rowe v. Tippet*, 615 F.3d at 249 and *Concrete Works of Colo., Inc. v. City & Cnty. of Denver*, 321 F.3d 950, 989 (10th Cir. 2003)).

⁷¹ *Id.* at 1198.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *City of Richmond v. J. A. Croson Co.*, 488 U.S. at 492.

⁷⁶ *Rothe Development Corp. v. United States Department of Defense*, 545 F.3d at 1048-1049.

⁷⁷ *Id.* (The Federal Circuit also distinguished the case before it from *Concrete Works of Colo., Inc. v. City & Cnty. of Denver* saying that Denver offered more evidence than money spent to establish that it was a passive participant.).

In *Vitolo v. Guzman*, the Sixth Circuit acknowledged that race-based remedial measures may be justified by the governmental entity's passive participation in discrimination.⁷⁸ The court, however, emphasized that the government did not provide the requisite evidence to support their claim.⁷⁹ Evidence that "prior, race-neutral relief efforts failed to reach minorities is no evidence at all that the government enacted or administered those policies in a discriminatory way."⁸⁰ The *Vitolo* court did not explain, however, how passive participation by the government in private sector discrimination is even implicated by a failed relief program that the court claims was not administered in a discriminatory manner.⁸¹ *Vitolo* essentially renders the passive participation rationale for racial or gender preferences meaningless.⁸²

C. Federal Statutory Law

Two federal statutes are particularly relevant to Caltrans' potential use of race- or gender-conscious measures: Title VI and Section 1981.

1. Title VI. Title VI, codified as 42 United States Code Section 2000d, prohibits discrimination based on race, color, or national origin in any program or activity that receives federal funds or other federal financial assistance but permits a voluntary race-conscious program that remediates discrimination.⁸³ 28 CFR Part 42, which sets forth the requirements of Title VI, states that a governmental entity "must take affirmative action to overcome the effects of prior discrimination."⁸⁴ Courts have held that Title VI adopts or follows the Fourteenth Amendment's standard of proof for intentional discrimination. Thus, strict scrutiny applies to any federal fund recipient's intentional use of race.⁸⁵ Additionally, Title VI "proscribes only those racial classifications that would violate the Equal Protection Clause or the Fifth Amendment."⁸⁶

2. Section 1981. 42 United States Code Section 1981 (Section 1981), states in relevant part:

*All persons within the jurisdiction of the United States shall have the same right in every State and Territory to make and enforce contracts, to sue, be parties, give evidence, and to the full and equal benefit of all laws and proceedings for the security of persons and property as is enjoyed by white citizens...*⁸⁷

Section 1981 and the Fourteenth Amendment "were expressions of the same general congressional policy" and intended to work cooperatively to prohibit racial discrimination by the government as well

⁷⁸ *Vitolo v. Guzman*, 999 F.3d 353, 361 (6th Cir. 2021) (A lawsuit over an ultimately unconstitutional federal law prioritizing the disbursement of coronavirus relief money to MBEs and WBEs).

⁷⁹ *Id.*

⁸⁰ *Id.* at 362.

⁸¹ *Id.*

⁸² *Id.* at 362.

⁸³ 42 U.S.C. § 2000d.

⁸⁴ 28 C.F.R. § 42.104(b)(6)(1).

⁸⁵ *Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265, 412- 18 (1978).

⁸⁶ *Grutter v. Bollinger*, 539 U.S. 306, 343 (2003) (citing *General Building Contractors Assn., Inc. v. Pennsylvania*, 458 U.S. 375, 389-391 (1982) (the prohibition against discrimination in § 1981 is co-extensive with the Equal Protection Clause); see also *Students for Fair Admissions, Inc. v. President & Fellows of Harv. Coll.*, 600 U.S. at 143 n.2.

⁸⁷ 42 USC § 1981(a).

as private parties.⁸⁸ In *Gratz v. Bollinger*, the Supreme Court reviewed the University of Michigan's admissions program that among other factors assigned points to members of underrepresented minority groups regardless of other qualifications.⁸⁹ The Supreme Court held that the admissions policy used by the University of Michigan violated the Equal Protection Clause⁹⁰ and stated "[w]e further find that the admissions policy also violates Title VI and 42 U.S.C. § 1981."⁹¹ The court explained that section 1981 was "meant, by its broad terms, to proscribe discrimination in the making or enforcement of contracts against, or in favor of, any race."⁹² "[P]urposeful discrimination that violates the Equal Protection Clause of the Fourteenth Amendment will also violate § 1981."⁹³

Grutter v. Bollinger was the companion case to *Gratz v. Bollinger*. At issue in *Grutter v. Bollinger* was the University of Michigan Law School admissions policy that considered diversity, including racial diversity, but looked holistically at each candidate.⁹⁴ The Supreme Court held that the law school's admissions policy did pass constitutional muster.⁹⁵ The court held that "the Equal Protection Clause does not prohibit the Law School's narrowly tailored use of race in admissions decisions to further a compelling interest in obtaining the educational benefits that flow from a diverse student body. Consequently, petitioner's statutory claims based on Title VI and 42 U.S.C. § 1981 also fail."⁹⁶

D. Federal Regulatory Law

On April 9, 2024, the United States Department of Transportation released a final rule that modified the DBE program implementation.⁹⁷ As stated above, the effective date of Final Rule 2024 was May 9, 2024.⁹⁸ Final Rule 2024 was implemented for the purpose of "updating the personal net worth and program size thresholds for inflation; modernizing rules for counting of material suppliers; incorporating procedural flexibilities enacted during the coronavirus (COVID-19) pandemic; adding elements to foster greater usage of DBEs and ACDBEs [Airport Concessions Disadvantaged Business Enterprises] with concurrent, proactive monitoring and oversight; updating certification provisions with less prescriptive rules that give certifiers flexibility when determining eligibility; revising the interstate certification process to provide for reciprocity among certifiers; and making technical corrections to commonly misinterpreted rules."⁹⁹

The Final Rule 2024 has left in place the original goal-setting structure, noting the "limitations and other flexibilities embedded in the DBE program—such as the ability of recipients to seek waivers of or exemptions from certain provisions, the requirement for recipients to reexamine their programs and

⁸⁸ *Gen. Bldg. Contractors Ass'n, Inc. v. Penn.*, 458 U.S. 375, 383-391 (1981).

⁸⁹ *Gratz v. Bollinger*, 539 U.S. 244, 255 (2003).

⁹⁰ *Id.* at 275.

⁹¹ *Id.* at 275-276.

⁹² *Id.* at 275 n.23 (citing *McDonald v. Santa Fe Trail Transp. Co.* 427 U.S. 273, 295-296, 49 L. Ed. 2d 493, 96 S. Ct. 2574 (1976)).

⁹³ *Id.*

⁹⁴ *Grutter v. Bollinger*, 539 U.S. at 314-316.

⁹⁵ *Id.* at 343.

⁹⁶ *Id.* (citing *General Building Contractors Assn., Inc. v. Pennsylvania*, 458 U.S. 375, 389-391 (1982) (the prohibition against discrimination in § 1981 is co-extensive with the Equal Protection Clause)).

⁹⁷ 89 FR 24898.

⁹⁸ *Id.*

⁹⁹ *Id.*

program goals every three years, and the authority to decertify firms that do not continue to meet certification standards—ensure that DOT’s DBE regulations, on their face, are narrowly tailored.”¹⁰⁰

E. State Constitutional Law

Two articles of the California Constitution are particularly relevant to Caltrans’ potential use of race- or gender-conscious measures in awarding non USDOT-funded projects: Article 1 Section 7 and Article 1 Section 31.

1. Article 1 Section 7. In 1974, California voters amended the California Constitution to include an equal protection provision in Article I section 7(a), commonly known as the California Equal Protection Clause. The California Equal Protection Clause states in part:

*A person may not be deprived of life, liberty, or property without due process of law or denied equal protection of the laws; provided, that nothing contained herein or elsewhere in this Constitution imposes upon the State of California or any public entity, board, or official any obligations or responsibilities which exceed those imposed by the Equal Protection Clause of the 14th Amendment to the United States Constitution with respect to the use of pupil school assignment or pupil transportation.*¹⁰¹

In *DeRonde v. Regents of Univ. of Cal.*, the California Supreme Court explained that the guarantees in the Equal Protection Clause of the California Constitution are “different from, and independent of, those extended by the Fourteenth Amendment to the United States Constitution.”¹⁰² In the context of race-conscious programs, the state Constitution imposes “no greater restrictions than similar guarantees provided by the federal charter.”¹⁰³ The California Supreme Court has construed the provision on several occasions recognizing the continuing challenges faced by POCs.¹⁰⁴ The importance of this context is that the California Equal Protection Clause is not a barrier to the adoption of a DBE program.¹⁰⁵

The court in *Connerly v. State Personnel Bd. (Connerly)* held that even though the guarantee in the California Equal Protection Clause is independent of the federal guarantee, the application of the two guarantees is identical, with one exception.¹⁰⁶ Under California law, classifications based on gender, like classifications based on race, are considered suspect for purposes of equal protection analysis.¹⁰⁷ “While the federal Constitution does not require strict scrutiny for gender classifications, [the] state Constitution mandates strict scrutiny without regard to the gender of the complaining party.”¹⁰⁸

¹⁰⁰ 89 FR 24899.

¹⁰¹ CA Const. Article I § 7(a).

¹⁰² *DeRonde v. Regents of Univ. of Cal.*, 28 Cal. 3d 875, 889 (Cal. 1981).

¹⁰³ *Id.* (citing *Price v. Civil Service Com.*, 26 Cal.3d 257, 284-285 (Cal. 1980)).

¹⁰⁴ *Id.* (citing *Crawford v. Board of Education* 17 Cal.3d 280, 301-302 (Cal. 1976)).

¹⁰⁵ *Id.*

¹⁰⁶ *Connerly v. State Personnel Bd.*, 92 Cal. App. 4th 16, 31-32 (Cal. Ct. App.2001).

¹⁰⁷ *Id.* at 32 (citing *Koire v. Metro Car Wash* 40 Cal. 3d 24, 37 (1985)).

¹⁰⁸ *Id.* at 40.

A challenge under California's Equal Protection Clause can only succeed if "similarly situated" people are treated differently.¹⁰⁹ Conversely, a classification satisfies equal protection of law so long as similarly situated people "with respect to the legitimate purpose of the law" receive like treatment.¹¹⁰

2. Article 1 Section 31. In 1996, California voters amended the California Constitution and added a provision, Article 1 Section 31, commonly known as Proposition 209 (Prop. 209). The amendment states:

*The State shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education or public contracting.*¹¹¹

There are three exceptions to Prop. 209's prohibition against discrimination or preferential treatment based on race or gender in the legislation itself. Section 31 does not prohibit preferential treatment in the form of race- and gender-conscious programs if: (1) bona fide qualifications based on sex are reasonably necessary to the normal operation of public employment, public education, or public contracting; (2) there was an existing court order or consent decree when Section 31 became effective; or (3) the action must be taken to establish or maintain eligibility for any federal program, where ineligibility would result in a loss of federal funds to the State.¹¹²

Additionally, there is a limited exception established by the California Supreme Court in *Coral Construction, Inc. v. City and County of San Francisco*, called "federal compulsion." For this exception to apply, the governmental entity must demonstrate that: (1) it purposefully discriminated against minority business enterprises or women business enterprises; (2) the purpose of the race-or gender-conscious program is to provide a remedy for such discrimination; (3) the program is narrowly tailored to achieve that purpose; and (4) a race-and gender-conscious remedy is necessary as the only, or at least the most likely, means to remedy the injury.¹¹³ If the governmental entity fails to show all four factors the use of the classification would be unconstitutional.¹¹⁴ The California Supreme Court explained that a public entity's findings regarding these four factors are entitled to deference, but the findings do not bind the courts.¹¹⁵ Even if a governmental entity makes findings that classifications under this limited exception are necessary, courts are still required to conduct a "searching judicial review of presumptively unconstitutional racial classifications ...".¹¹⁶ The court in *Coral Construction, Inc. v. City and County of San Francisco* also held that "[w]here the state or a political subdivision has intentionally discriminated, use of a race-conscious or race-specific remedy necessarily follows as the only, or at least

¹⁰⁹ *Connerly v. State Personnel Bd*, 92 Cal.App.4th at 32.

¹¹⁰ *Id.*

¹¹¹ CA Const. Article I § 31(a).

¹¹² Cal. Const., art. I, § 31(c)-(e).

¹¹³ *Coral Construction, Inc. v. City and County of San Francisco*, 50 Cal. 4th 315, 337-338 (Cal. 2010).

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 338 n. 20.

¹¹⁶ *Id.*

the most likely, means of rectifying the resulting injury.”¹¹⁷ The court reiterated that even in these circumstances the remedial law must survive strict scrutiny.¹¹⁸

In *Hi-Voltage Wire Works, Inc. v. City of San Jose*, the City of San Jose required contractors bidding on city projects to either use a specific percentage of minority-owned business enterprise (MBE) and woman-owned business enterprise (WBE) subcontractors (participation option) or document outreach efforts to MBE and WBE subcontractors, including providing written notice to at least four of them, soliciting them for the project, following up, and providing written reasons justifying the rejection of a low bid by them (outreach option).¹¹⁹ The California Supreme Court held that the program violated Article 1 Section 31 because the participation option authorized or encouraged “what amounts to discriminatory quotas or set-asides” or at least numerical goals, and the outreach option afforded preferential treatment to MBEs and WBEs.¹²⁰ The court left open the possibility that some forms of outreach might be lawful and that not all forms of race or gender-conscious affirmative action in public contracting programs were unconstitutional. For example, five members of the Supreme Court suggested that Los Angeles’ MBE/WBE/other business enterprise (OBE) subcontractor participation policy would survive scrutiny under Prop. 209.¹²¹

The Court in *High Voltage* also rejected San Jose’s argument that the federal equal protection clause could be relied upon to defend its program, stating the federal equal protection clause does not require race- or gender-conscious programs and does not preclude the state from providing “greater protection” to individuals against discrimination and preferential treatment.¹²² By contrast, Prop. 209 prohibits all discrimination and preferential treatment and does not have a compelling interest exception.¹²³ Nonetheless, the California Supreme Court acknowledged that if a governmental entity intentionally discriminates then race-conscious remedies might be required to rectify the injury.¹²⁴ The requisite disparity study would have to detail the intentional acts of discrimination.¹²⁵ Last, the court noted that federal courts have held that Prop. 209 complies with Titles VI, VII, and IX of the Civil Rights Act of 1964.¹²⁶

Similarly, in *Connerly v. State Personnel Board*, a California Court of Appeal held that a subcontracting program violated Prop. 209 because individuals from a list of racial backgrounds and women were conclusively presumed to be socially and economically disadvantaged, whereas white males would have to prove disadvantage.¹²⁷ The Court also struck down a civil service program that altered “layoff and reemployment schemes in order to maintain the racial and/or gender composition of the work force”

¹¹⁷ *Id.* at 337 (citing *Hi-Voltage Wire Works, Inc. v. City of San Jose*, 24 Cal.4th 537, 568).

¹¹⁸ *Id.*

¹¹⁹ *Hi-Voltage Wire Works, Inc. v. City of San Jose* 24 Cal.4th 537, 543 (2000).

¹²⁰ *Id.* at 562, 564-565.

¹²¹ *Id.* at 565; see also at 594 George, C.J. conc. & dissenting opn. Los Angeles’ outreach program was before the California Supreme Court in *Domar Electric, Inc. v. City of Los Angeles* (1994) 9 Cal.4th 161. The Supreme Court concluded that the program was consistent with the Los Angeles Charter.

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.* at 568.

¹²⁵ *Id.*

¹²⁶ *Id.* at 569.

¹²⁷ *Connerly v. State Personnel Board* 92 Cal.App.4th at 47-48.

which “unquestionably would discriminate against some individuals and grant preferences to others on the basis of race and/or gender” because it violated Prop. 209.¹²⁸ However, the court upheld a monitoring program that collected and reported data regarding the participation of racial minorities and women in government programs because it did not implicate Prop. 209 and did not grant a preference to an individual or group.¹²⁹ Moreover, the court held outreach programs that do not rely on race or gender classifications are not constitutionally forbidden.¹³⁰

a. Exceptions to Prop. 209. As noted, Section 31 allows race- and sex-conscious programs necessary to establish or maintain eligibility for federal funding (federal funding exception).¹³¹ However, the California Supreme Court and Court of Appeal have often rejected public entities’ reliance on this exception, concluding that the cited regulations allow, but do not require, such programs.

For example, in *Coral Construction*,¹³² the California Supreme Court rejected the City and County of San Francisco’s argument that the federal funding exception applied. The city relied on two federal regulations, one from the Environmental Protection Agency (EPA) and the other from the Department of Transportation.¹³³ The EPA’s regulation “requires a recipient of federal funds who has previously discriminated to take affirmative action to provide remedies to those who have been injured by the discrimination.”¹³⁴ The Court rejected reliance on this regulation because “affirmative action clearly refers not to race-based remedies but, rather, to actions taken to benefit the specific victims of past discrimination.”¹³⁵ The Department of Transportation regulation (adopted to implement Title VI) provides:

*This part does not prohibit the consideration of race, color, or national origin if the purpose and effect are to remove or overcome the consequences of practices or impediments which have restricted the availability of, or participation in, the program or activity receiving Federal financial assistance, on the grounds of race, color, or national origin. Where prior discriminatory practice or usage tends, on the grounds of race, color, or national origin to exclude individuals from participation in, to deny them the benefits of, or to subject them to discrimination under any program or activity to which this part applies, the applicant or recipient must take affirmative action to remove or overcome the effects of the prior discriminatory practice or usage. Even in the absence of prior discriminatory practice or usage, a recipient in administering a program or activity to which this part applies, is expected to take affirmative action to assure that no person is excluded from participation in or denied the benefits of the program or activity on the grounds of race, color, or national origin.*¹³⁶

¹²⁸ *Id.* at 55.

¹²⁹ *Id.*

¹³⁰ *Id.* at 46. A Ninth Circuit federal district court has noted that no reported case has invalidated a facially neutral policy under Prop 209. See *Schiff v. City and County of San Francisco*, 2020 U.S. Dist. LEXIS 3824 (N.D. Cal., Jan. 8, 2020).

¹³¹ Cal. Const., art. I, § 31(e).

¹³² 50 Cal.4th 315.

¹³³ *Id.* at 334.

¹³⁴ *Id.* (internal quotations omitted) (citing 40 C.F.R. § 7.35(a)(7)).

¹³⁵ *Id.* (internal quotations omitted).

¹³⁶ 49 C.F.R. § 21.5(b)(7).

In rejecting the argument, the court noted that “affirmative action” is not defined in either regulation and “no intention to require racial preferences emerges from the[] plain language.”¹³⁷ Further, while the first sentence of the Department of Transportation regulation mentions race-based remedies, such remedies are merely permissive.¹³⁸ The court concluded:

*The unmistakable import of this language is not that race-based remedies are required, but simply that they are permitted, so far as the Secretary is concerned, if no other law precludes them. That the Secretary has no objection to race-based remedies does not establish the federal compulsion required to exempt the City’s 2003 ordinance from section 31.*¹³⁹

Before *Coral Construction* was decided, a California Court of Appeal similarly rejected a public entity’s reliance on the same Department of Transportation regulation, as well as regulations by the Departments of Energy and Defense.¹⁴⁰

It is thus well-settled that the federal-funding exemption to Prop. 209 is triggered only when the recipient public entity is clearly instructed by the federal government that race-based affirmative action is a requirement of receipt of funds. Under Part 26, the DBE Program regulations, inclusive of the Final Rule 2024 changes, clearly require recipients to establish and operate a DBE Program, which often includes specific race- and gender-conscious utilization goals for DBEs.¹⁴¹ Therefore, state action implementing the race- and gender-based mandates of Part 26 would fall within Prop. 209’s federal funding exception.

~~Further, under the Office of Federal Contract Compliance Programs and Executive Order 11246,¹⁴² state entities that enter contracts with the federal government to perform services exceeding \$10,000 in value are subject to the Department of Labor’s policies regarding affirmative action in employment.¹⁴³ Such federal contractors must have affirmative action plans showing an effort to hire women and minorities to compete for federal contract procurement. The Department of Labor audits businesses and state entities for compliance with federal equal employment opportunity laws and has clarified that Executive Order 11246 overrides state law in this matter. Acknowledging the apparent conflict between federal EEO laws and Prop. 209, the Department of Labor notes on its website that:~~

~~While Proposition 209 is enforceable in California, it does not affect the application of Executive Order 11246. If a conflict develops for a contractor who is subject to both Executive Order 11246 and Proposition 209, the requirements of Executive Order 11246 should prevail under the U.S. Constitution’s Supremacy Clause—the Executive Order is federal law and Proposition 209 is state law.~~

¹³⁷ 50 Cal.4th at 334.

¹³⁸ *Id.* at 335.

¹³⁹ *Id.*

¹⁴⁰ *C & C Construction*, 122 Cal.App.4th at 305-09.

¹⁴¹ 49 CFR § 26.21.

¹⁴² ~~Equal Employment Opportunity~~, 30 Fed. Reg. 12319 (September 28, 1965).

¹⁴³ ~~41 CFR § 60-4.1.~~

Therefore, federal contractors in the State of California must comply with the Executive Order and its affirmative action requirements.¹⁴⁴

¹⁴⁴ See OFCCP's FAQ on Jurisdiction. <https://www.dol.gov/ofccp/regs/compliance/faqs/juristn.htm#Q8>.

APPENDIX C.

Availability Analysis Approach

BBC Research & Consulting (BBC) used a custom census approach to estimate the availability of California businesses for the construction and professional services contracts and procurements the California Department of Transportation (Caltrans) awards. Appendix C expands on the information presented in Chapter 6 to further describe:

- A. Availability data;
- B. Representative businesses;
- C. Availability survey instrument; and
- D. Survey execution.

A. Availability Data

BBC partnered with Davis Research to conduct telephone and online surveys with thousands of businesses throughout the relevant geographic market area (RGMA), which we identified as California. Davis Research surveyed businesses with locations in the RGMA that perform work in fields closely related to the types of contracts and procurements Caltrans awarded between January 1, 2020 through December 31, 2023 (*study period*). We began the survey process by determining the work specializations, or *subindustries*, relevant to each prime contract and subcontract Caltrans awarded during the study period and identifying 8-digit Dun & Bradstreet (D&B) work specialization codes that best corresponded to those subindustries. We then compiled information about local businesses D&B listed as having their primary lines of business within those work specializations, and Davis Research attempted surveys with each business multiple times on different days of the business week and at different times of the business day to maximize response rates. In total, the study team attempted to contact 13,937 local businesses that perform work relevant to Caltrans contracting and procurement. We were able to successfully contact 2,854 of those businesses, 1,305 of which completed surveys.

B. Representative Businesses

The objective of the availability analysis was not to collect information about every business operating in the RGMA but instead was to collect information from a large, unbiased subset of local businesses that appropriately represented the entire relevant business population. That approach allowed BBC to estimate the availability of person of color (POC)- and woman-owned businesses for Caltrans work in an accurate, statistically valid manner.¹ In addition, we did not design the survey effort to contact every local business possibly performing construction or professional services work. Instead, we reviewed the relevant prime contract and subcontract dollars Caltrans awarded during the study period, determined the types of work most relevant to those projects, and limited our survey efforts to those businesses that perform work consistent with those work types. Figure C-1 lists 8-digit work specialization codes within construction and professional services most related to the contract and procurement dollars Caltrans

¹ "Woman-owned businesses" refers to White woman-owned businesses. Information and results for businesses owned by women of color are included along with those of businesses owned by men of color according to their corresponding race/ethnic groups.

awarded during the study period, which BBC included as part of the availability analysis. We grouped those specializations into distinct subindustries, which are shown as headings in Figure C-1.

C. Availability Survey Instrument

BBC created an availability survey instrument to collect extensive information from relevant businesses located in the RGMA. As an example, the instrument the study team used with construction businesses is presented at the end of Appendix C. We modified the construction survey instrument slightly for use with businesses working in professional services to reflect terms more commonly used in those industries and to collect information specifically relevant to them.² (For example, BBC substituted the words “prime contractor” and “subcontractor” with “prime consultant” and “subconsultant” when surveying professional services businesses.)

1. Survey structure. The availability survey included 14 sections, and Davis Research attempted to cover all sections with each business the firm successfully contacted.

a. Identification of purpose. The surveys began by identifying Caltrans as the survey sponsor and describing the purpose of the study. (e.g., “Caltrans is conducting a disparity study to assess barriers that businesses might face in the local marketplace. As part of that research, Caltrans wants to understand the availability of different types of businesses for the contracts and procurements it awards. We are conducting a survey to collect information about businesses qualified and interested in performing construction-related work for government and other public agencies, entities, and offices in California.”)

b. Verification of correct business name. The surveyor verified he or she had reached the correct business. If the business was not correct, surveyors asked if the respondent knew how to contact the correct business. Davis Research then followed up with the correct business based on the new contact information if the business representative provided it (see areas “X” and “Y” of the survey).

c. Verification of for-profit business status. The surveyor asked whether the entity was a for-profit business as opposed to a government or nonprofit organization (Question A1). Surveyors continued the survey only with those entities that responded “yes” to that question.

d. Verification of active business status. The surveyor asked whether the entity was in business and operational (Question A2). Surveyors continued the survey only with those entities that responded “yes” to that question.

e. Confirmation of primary lines of work. Businesses were first asked if they performed transportation-related work, building-related work, or only work for residential customers (Question A2a). If they only performed work for residential customers, they were excluded from the analysis. Next, businesses confirmed their primary lines of work according to D&B (Question A3a). If D&B’s work specialization codes were incorrect, they described their primary lines of work (Question A3b) as well as other types of work they perform (Question A3c). BBC coded information on primary lines of work and additional types of work (if any) into appropriate 8-digit D&B work specialization codes.

² BBC also developed e-mail versions of the survey instruments for businesses that preferred to complete the survey online.

Figure C-1.
Subindustries included in the availability analysis

Industry, subindustry, and work type	Industry, subindustry, and work type
Construction	
Concrete work	Landscaping services
17710000 Concrete work	7829903 Landscape contractors
Concrete, asphalt, sand, and gravel products	Other construction materials
50320500 Concrete and cinder building products	36690206 Traffic signals, electric
32730000 Ready-mixed concrete	
Electrical work	Painting, striping, and marking
17310000 Electrical work	17210302 Bridge painting
	17990203 Coating of Metal structures at construction site
	17210300 Industrial painting
Excavation, drilling, wrecking, and demolition	17210303 Pavement marking contractor
16299902 Earthmoving contractor	
17940000 Excavation work	Rebar and reinforcing steel
16110203 Grading	34490101 Bars, concrete reinforcing: fabricated steel
16299903 Land clearing contractor	34410201 Bridge sections, prefabricated, highway
16290400 Land preparation construction	34449902 Concrete forms, sheet Metal
16299904 Pile driving contractor	50510205 Concrete reinforcing bars
17990903 Shoring and underpinning work	32720700 Concrete structural support and building material
17950000 Wrecking and demolition work	34410000 Fabricated structural Metal
	34410200 Fabricated structural Metal for bridges
Fencing, guardrails, barriers, and signs	50510209 Forms, concrete construction (steel)
17999912 Fence construction	33120405 Structural shapes and pilings, steel
16110101 Guardrail construction, highways	50510217 Structural shapes, iron or steel
16110102 Highway and street sign installation	
16110100 Highway signs and guardrails	
17999929 Sign installation and maintenance	

Figure C-1.
Subindustries included in the availability analysis (continued)

Industry, subindustry, and work type	Industry, subindustry, and work type
Construction (continued)	
Highway, street, and bridge construction	Traffic control and safety
16229901 Bridge construction	73899921 Flagging service (traffic control)
16220000 Bridge, tunnel, and elevated highway construction	36690201 Highway signals, electric
16110202 Concrete construction: roads, highways, sidewalks, etc.	36690203 Pedestrian traffic control equipment
16119901 General contractor, highway and street construction	36690200 Transportation signaling devices
16110000 Highway and street construction	73599912 Work zone traffic equipment (flags, cones, barrels, etc.)
16119902 Highway and street maintenance	
16110204 Highway and street paving contractor	Trucking, hauling, and storage
16229902 Highway construction, elevated	42129905 Dump truck haulage
16110205 Resurfacing contractor	
16110200 Surfacing and paving	Water, sewer, and utility lines
	17999906 Core drilling and cutting
	16239906 Underground utilities contractor
	16230000 Water, sewer, and utility lines

Figure C-1.
Subindustries included in the availability analysis (continued)

Industry, subindustry, and work type	Industry, subindustry, and work type
Professional services	
Construction management	Surveying and mapmaking
87419902 Construction management	87130000 Surveying services
73899960 Estimating service, construction	
Engineering	Testing and inspection
87120100 Architectural engineering	87340301 Hazardous waste testing
87120101 Architectural engineering	47850202 Inspection services connected with transportation
87110402 Civil engineering	73890209 Pipeline and power line inspection service
87110400 Construction and civil engineering	87340300 Pollution testing
	87349909 Soil analysis
	07119906 Soil testing services
Environmental services	47850200 Transportation inspection services
89990700 Earth science services	
87310302 Environmental research	Transportation planning services
89990702 Geophysical consultant	87480204 Traffic consultant
	87420410 Transportation consultant
	87480200 Urban planning and consulting services

f. Locations and affiliations. The surveyor asked participants if their businesses had other locations (Question A4) and if their businesses were subsidiaries or affiliates of other businesses (Questions A5 - A7).

g. Willingness and ability to work. The surveyor asked businesses whether they are willing and able to work in various roles (Questions B1-B3).

h. Interest in future work. The surveyor asked businesses about their interest in future prime contract and subcontract work with Caltrans or other government agencies (Question B4).

i. Geographic area. The surveyor asked businesses whether they could serve customers in various regions of California (Questions C0-C11).

j. Capacity. The surveyor asked businesses about the values of the largest prime contracts and subcontracts they can perform as well as the maximum volume of work they can perform at any given time (Questions D1 and D2).

k. Ownership. The surveyor asked whether businesses were at least 51 percent owned and controlled by POCs or women (Questions E1 and E2). If businesses indicated they were POC-owned, they were also asked about the race of the business' owner(s) (Question E3). BBC confirmed that information through several other data sources, including:

- Caltrans contract and vendor data;
- The California Unified Certification Program directory;
- The California Public Utilities Commission Supplier Clearinghouse Database;
- D&B business listings and other business information sources;
- Information from other available certification directories and business lists; and
- Business websites and other secondary research.

l. Business revenue. The surveyor asked questions about businesses' sizes in terms of their revenues and number of employees across all their locations (Questions F1 through F4).

m. Potential barriers in the marketplace. The surveyor asked an open-ended question about businesses' experiences working with Caltrans and other local government agencies as well as general insights about conditions in the California marketplace (Questions G1a and G1b). In addition, the survey included a question asking whether respondents would be willing to participate in follow-up interviews about conditions in the local marketplace, which BBC used to recruit participants for in-depth interviews (Question G2).

n. Contact information. The survey concluded with questions about the participant's name, position, and contact information (Questions H1 through H3).

D. Survey Execution

Davis Research conducted all availability surveys between April 2024 and August 2024. The firm attempted to survey the owner, manager, or other officer of each business that could provide accurate responses to survey questions.

1. Businesses the study team successfully contacted. Figure C-2 presents the disposition of the 13,937 businesses the study team attempted to contact for availability surveys and how that number resulted in the 2,854 businesses the study team was able to successfully contact.

Figure C-2.
Disposition of attempts to
contact businesses for
availability surveys

Source:
BBC availability analysis.

Disposition	Number of businesses
Beginning list	13,937
Less duplicate phone numbers	61
Less non-working phone numbers	1,571
Less wrong number/business	568
Unique business listings with working phone numbers	11,737
Less no answer	6,958
Less could not reach responsible staff member	1,914
Less language barrier	11
Businesses successfully contacted	2,854

a. Non-working or wrong phone numbers. Some of the business listings BBC purchased from D&B were:

- Duplicate phone numbers (61 listings);
- Non-working phone numbers (1,571 listings); or
- Wrong phone numbers for the desired businesses (568 listings).

Some non-working phone numbers and wrong phone numbers resulted from businesses going out of business or changing their names and phone numbers between the time D&B listed them and the time the study team attempted to contact them.

b. Working phone numbers. As shown in Figure C-2, there were 11,737 businesses with working phone numbers Davis Research attempted to contact. They were unsuccessful in contacting many of those businesses for various reasons:

- The firm could not reach anyone after multiple attempts for 6,958 businesses.
- The firm could not reach a responsible staff member after multiple attempts for 1,914 businesses.
- The firm could not conduct the availability survey due to language barriers for 11 businesses.

Thus, Davis Research was able to successfully contact 2,854 businesses.

2. Businesses included in the availability database. Figure C-3 presents the disposition of the 2,854 businesses Davis Research successfully contacted and how that number resulted in the 1,116 businesses BBC considered potentially available for Caltrans work.

Figure C-3.
Disposition of successfully
contacted businesses

Source:
BBC availability analysis.

Disposition	Number of businesses
Businesses successfully contacted	2,854
Less businesses not interested in discussing availability for work	972
Less companies no longer in business	489
Less not a for-profit business	40
Less only works with residential customers	48
Businesses that completed surveys	1,305
Less line of work outside of study scope	23
Less no interest in future work	142
Less multiple locations of same business	24
Businesses potentially available for Caltrans work	1,116

a. Businesses not eligible or interested in discussing availability for Caltrans work. Of the 2,854 businesses the study team successfully contacted:

- BBC excluded 972 businesses from the analysis because they reported that they were not interested in discussing their availability for Caltrans work.
- We excluded 489 businesses from the analysis that indicated they were no longer in business.
- We excluded 40 businesses from the analysis that indicated they were not-for-profit businesses.
- We excluded 48 businesses from the analysis that indicated they only conduct work for residential customers.

b. Businesses available for Caltrans work. 1,305 businesses completed availability surveys, but BBC deemed only a portion of those businesses as potentially available for the prime contracts and subcontracts Caltrans awarded during the study period. We excluded some of the businesses that completed surveys from the availability database for various reasons:

- BBC excluded 23 businesses that reported primary lines of work outside the study scope.³
- We excluded 142 businesses that reported they were not interested in contracting opportunities with Caltrans or other government organizations.
- There were 24 survey participants who represented different locations of the same businesses. Prior to analyzing results, BBC combined responses from multiple locations of the same business into a single data record according to the following rules:
 - If different locations of the same business indicated different lines of work, BBC conducted additional secondary research to reconcile that information into one primary line of work.

³ Examples include legal services, utilities, and software developers.

- BBC combined the different roles of work (i.e., prime contractor or subcontractor) different participants representing the same business reported into a single response. For example, if one participant reported that the business works as a prime contractor and another participant reported that the business works as a subcontractor, then BBC considered the business as available for both prime contracts and subcontracts.
- BBC considered the largest project any participants representing the same business reported being able to perform as the business' capacity (i.e., the largest project for which the business could be considered available).

After those exclusions and reconciliations, BBC compiled a database of 1,116 businesses we considered potentially available for Caltrans work.

AVAILABILITY SURVEY INSTRUMENT.

Construction

Hello. My name is [INTERVIEWER NAME] from Davis Research, calling on behalf of [the California Department of Transportation, also known as Caltrans]. This is not a sales call. [Caltrans] is conducting a disparity study to assess barriers that businesses might face in the local marketplace. As part of that research, [Caltrans] wants to understand the *availability* of different types of businesses for the contracts and procurements it awards. We are conducting a survey to collect information about businesses qualified and interested in performing construction-related work for government and other public agencies, entities, and offices in [California]. The survey is designed only to gather information and will have no impact on present or future work opportunities with [Caltrans]. Your participation in the survey would be very valuable to the process, and it should only take 15 minutes to complete.

Whom can I speak with to gather information about your business' characteristics and potential interest in working with government and other public agencies, entities, and offices in [California]?

[AFTER REACHING AN APPROPRIATELY SENIOR STAFF MEMBER, THE INTERVIEWER SHOULD RE-INTRODUCE THE PURPOSE OF THE SURVEY AND BEGIN WITH QUESTIONS.]

[IF ASKED, THE INFORMATION DEVELOPED IN THE SURVEYS WILL RESULT IN DATA ON BUSINESSES QUALIFIED AND INTERESTED IN WORKING WITH GOVERNMENT AND OTHER PUBLIC AGENCIES, ENTITIES, AND OFFICES IN THE REGION AND WILL INFORM VARIOUS ANALYSES AS PART OF THE RESEARCH.]

Please answer each question as honestly and accurately as possible so [Caltrans] can develop a realistic understanding of the businesses potentially available for government and other public agency work in [California].

X1. I have a few basic questions about your business and the type of work you do. Can you confirm this is [BUSINESS NAME]?

1=Correct business [SKIP TO Y4]

2=Incorrect business

99=Refused [TERMINATE]

Y1. What is the name of this business?

1=Verbatim

Y2. Is [NEW BUSINESS NAME] associated with [OLD BUSINESS NAME] in any way?

1=Yes, same owner doing business under a different name

2=Yes, can give information about new business

3=Business bought/sold/changed ownership

98=No, does not have information [TERMINATE]

99=Refused to give information [TERMINATE]

Y3. Do you work for [NEW BUSINESS NAME]?

1=Yes

2=No [TERMINATE]

Y4. Can you give me the address for [BUSINESS NAME/NEW BUSINESS NAME]?

[NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT]:

STREET ADDRESS

CITY

STATE

ZIP

1=VERBATIM

A1. Let me confirm [BUSINESS NAME/NEW BUSINESS NAME] is a for-profit business, as opposed to a non-profit organization, a foundation, or government office. Is that correct?

1=Yes, a for-profit business

2=No, other [TERMINATE]

A2. Is your company in business and operational?

1=Yes

2=No [TERMINATE]

A2a. Which of the following types of work do you perform work for or are willing to perform work for? Select all that apply.

[MULTIPUNCH]

1=Transit/transportation related work

2=Building construction (commercial, industrial, or public)

3=Residential customers (multifamily or single family)

98=Don't know

99=Refused

[TERMINATE IF **ONLY 3** IS SELECTED]

A3a. Let me also confirm the specific types of work your firm does. The information we have from Dun & Bradstreet indicates your main line of work is [SIC DESCRIPTION]. Is that 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 A3c]

2=No

98=Don't know

99=Refused

A3b. What would you say is the specific main line of work at [BUSINESS NAME/NEW BUSINESS NAME]?

[NOTE TO INTERVIEWER – IF RESPONDENT INDICATES BUSINESS' MAIN LINE OF WORK IS "GENERAL CONSTRUCTION" OR "GENERAL CONTRACTOR," PROBE TO FIND OUT MORE DETAIL ABOUT TYPES OF WORK THEY PERFORM.]

1=VERBATIM

A3c. What other types of work, if any, does your business perform?

1=VERBATIM

97=(NONE)

A4. Is this the sole location of your business, or do you have offices in other locations?

1=Sole location [SKIP TO A6]

2=Have other locations

98=Don't know

99=Refused

A5. Is this location the principal location for your business, or is your business primarily conducted at another location?

[NOTE TO INTERVIEWER: A PRINCIPAL PLACE OF BUSINESS IS A COMPANY'S PRIMARY LOCATION FOR CONDUCTING BUSINESS, AND IS GENERALLY WHERE THE COMPANY'S OFFICERS DIRECT, CONTROL, AND COORDINATE THE CORPORATION'S ACTIVITIES. IT'S ALSO WHERE THE COMPANY'S BOOKS AND RECORDS ARE KEPT, AND WHERE THE HEAD OF THE FIRM AND OTHER SENIOR MANAGEMENT PERSONNEL ARE LOCATED.]

1=Principal location is here

2=Principal location at another location in California

98=(DON'T KNOW)

99=(REFUSED)

A5a. What is the city, state, and ZIP code of your business' principal office?

[NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT]:

STREET ADDRESS

CITY

STATE

.ZIP

1=VERBATIM

A6. Is your business a subsidiary or affiliate of another business?

1=Independent [SKIP TO B1]

2=Subsidiary or affiliate of another business

98=Don't know [SKIP TO B1]

99=Refused [SKIP TO B1]

A7. What is the name of the parent company?

1=VERBATIM

98=Don't know

99=Refused

A prime or general contractor is a business that contracts directly with the project owner. In contrast, a subcontractor is a business that contracts with a prime or general contractor as part of a larger project. Some businesses work in both roles on different projects. Based on these definitions:

B1. Is your business willing and able to work as a prime contractor or general contractor?

1=Yes

2=No

98=Don't know

99=Refused

B2. Is your business willing and able to work as a subcontractor?

1=Yes

2=No

98=Don't know

99=Refused

B3. What about as a supplier? Is your business willing and able to supply construction materials or goods?

1=Yes

2=No

98=Don't know

99=Refused

B4. I'm also interested in the sectors in which your business works. Specifically, is your business interested in performing work on projects for government or other public agencies, entities, or offices in **[California]?**

1=Yes

2=No

98=Don't know

99=Refused

[NOTE TO INTERVIEWER: IF ASKED, EXAMPLES INCLUDE STATES, CITIES, COUNTIES, PUBLIC SCHOOLS AND UNIVERSITIES, TRANSPORTATION ORGANIZATIONS, AND OTHERS]

Now, I want to ask you about the geographic areas your business works within **[in California]**. Please think about the geographic areas in which your business is able to perform work or serve customers as you answer the following questions.

C0. Is your business able to perform work in 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
- 3=None of the state **[TERMINATE]**
- 98=Don't know
- 99=Refused

I'm going to go through several regions of **[California]**. For each one, please tell me if your business is able to work there.

C1. Is your business able to perform work in **[the North Coast Region], extending from **[Mendocino through Eureka to the Oregon border]**?**

- 1=Yes
- 2=No
- 98=Don't know
- 99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE NORTH COAST REGION IS CALTRANS DISTRICT 1, WHICH INCLUDES DEL NORTE, HUMBOLDT, LAKE, AND MENDOCINO COUNTIES]

C2. Is your business able to perform work in **[the Shasta-Redding Area], extending from **[Red Bluff through Redding to the Oregon border]**?**

- 1=Yes
- 2=No
- 98=Don't know
- 99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE SHASTA-REDDING AREA IS CALTRANS DISTRICT 2, WHICH INCLUDES LASSEN, MODOC, PLUMAS, SHASTA, SISKIYOU, TEHAMA, AND TRINITY COUNTIES]

C3. Is your business able to perform work in [the Sacramento-Tahoe Region], extending from [Sacramento Valley to Lake Tahoe and up to Chico]?

1=Yes

2=No

98=Don't know

99=Refused

[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]

C4. Is your business able to perform work in [the San Francisco Bay Area], extending from [San Jose to Santa Rosa]?

1=Yes

2=No

98=Don't know

99=Refused

[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]

C5. Is your business able to perform work in [the Central Coast Region], extending from [Santa Barbara to Salinas North Coast Region]?

1=Yes

2=No

98=Don't know

99=Refused

[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]

C6. Is your business able to perform work in [the Central Valley], extending from [Bakersfield to Stockton]?

1=Yes

2=No

98=Don't know

99=Refused

[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]

C7. Is your business able to perform work in [the Los Angeles Basin], which includes [Los Angeles, Ventura, and Orange Counties]?

1=Yes

2=No

98=Don't know

99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE LOS ANGELES BASIN IS CALTRANS DISTRICTS 7 AND 12, WHICH INCLUDE LOS ANGELES, VENTURA, AND ORANGE COUNTIES]

C8. Is your business able to perform work in [the San Bernardino-Riverside Region], extending from [San Bernardino and Riverside and extending east to Arizona]?

1=Yes

2=No

98=Don't know

99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE SAN BERNARDINO-RIVERSIDE REGION IS CALTRANS DISTRICT 8, WHICH INCLUDES SAN BERNARDINO AND RIVERSIDE COUNTIES]

C9. Is your business able to perform work in [the Bishop Region], extending from [Bishop to Mono Lake along the Nevada border]?

1=Yes

2=No

98=Don't know

99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE BISHOP AREA IS CALTRANS DISTRICT 9, WHICH INCLUDES INYO AND MONO COUNTIES]

C11. Is your business able to perform work in [the San Diego Region], extending from [San Diego and Oceanside east to the Arizona border]?

1=Yes

2=No

98=Don't know

99=Refused

[NOTE TO INTERVIEWER: IF ASKED, THE SAN DIEGO REGION IS CALTRANS DISTRICT 11, WHICH INCLUDES SAN DIEGO AND IMPERIAL COUNTIES]

Now I'd like to ask you a few questions about the size of work your business is able to compete for or perform.

D1. What is the largest prime contract, subcontract, or other piece of work your company is able to compete for or perform?

1=VERBATIM

[NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY]

1=\$100,000 or less

2=More than \$100,000 to \$250,000

3=More than \$250,000 to \$500,000

4=More than \$500,000 to \$1 million

5=More than \$1 million to \$2 million

6=More than \$2 million to \$5 million

7=More than \$5 million to \$10 million

8=More than \$10 million to \$20 million

9=More than \$20 million to \$50 million

10=More than \$50 million to \$100 million

11= More than \$100 million to \$200 million

12=Greater than \$200 million

97=(NONE)

98=(DON'T KNOW)

99=(REFUSED)

D2. Approximately what is the maximum volume of work your business can take on or perform in a given year?

1=VERBATIM

[NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY.]

[NOTE TO INTERVIEWER – FOR EXAMPLE, IS THERE SOME AMOUNT OF TOTAL WORK THAT IF YOUR BUSINESS OBTAINED IT, YOU WOULD HAVE TO START TURNING DOWN ADDITIONAL WORK BECAUSE YOU SIMPLY COULDN'T TAKE ON ANYMORE?]

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=Greater than \$200 million

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)

8=More than \$10 million to \$20 million

My next questions are about the ownership of your business.

E1. A business is defined as a woman-owned business if more than half—that is, 51 percent or more—of the ownership and control of daily management and operations is by individuals who identify as women. By this definition, is [BUSINESS NAME/NEW BUSINESS NAME] a woman-owned business?

1=Yes

2=No

98=Don't know

99=Refused

E2. A business is defined as a person of color-, or POC-, owned business if more than half—that is, 51 percent or more—of the ownership and control of daily management and operations is by individuals who identify as Asian, Black, Hispanic, Native American, or another non-white race or ethnicity. By this definition, is [BUSINESS NAME/NEW BUSINESS NAME] a POC-owned business?

1=Yes

2=No – [SKIP TO F2]

98=Don't know [SKIP TO F2]

99=Refused [SKIP TO F2]

E3. Which of the following best represent the race/ethnicity of the business' owner(s)?

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 Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic or Latin 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, Alaska Natives, 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=Middle Eastern or North African (persons whose origins are from Algeria, Bahrain, Comoros, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestinian Authority, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, Turkey, United Arab Emirates, or Yemen)

7=(OTHER - SPECIFY) _____

98=(DON'T KNOW)

99=(REFUSED)

Now I want to ask you a few questions about your business' size.

F1. Dun & Bradstreet indicates that your business has about [number] employees across all its locations. Is that an accurate estimate of the number of employees who work at your business, including both full-time and part-time employees?

1=Yes [SKIP TO F3]

2=No

98=Don't know [SKIP TO F3]

99=Refused [SKIP TO F3]

F2. About how many employees work at your business, including both full-time and part-time employees, across all your locations?

1=VERBATIM

[NOTE TO INTERVIEWER – READ CATEGORIES IF NECESSARY]

- | | |
|-------------------------|----------------------------|
| 1=25 employees or fewer | 7=251-500 employees |
| 2=26-50 employees | 8=501-750 employees |
| 3=51-100 employees | 9=751-1,000 employees |
| 4=101-150 employees | 10=1,001-1,250 employees |
| 5=151-200 employees | 11=1,251-1,500 employees |
| 6=201-250 employees | 12=1,501 or more employees |

F3. Dun & Bradstreet lists the average annual gross revenue of your business, including all your locations, as [DOLLAR AMOUNT]. Is that an accurate estimate of your business's average annual gross revenue?

- 1=Yes [SKIP TO G1a]
2=No
98=Don't know [SKIP TO G1a]
99=Refused [SKIP TO G1a]

F4. Roughly, what was the average annual gross revenue of your business, including all of your locations?

1=VERBATIM

[READ LIST IF NECESSARY]

- | | |
|---|------------------|
| 1=\$1 million or less | 98= (DON'T KNOW) |
| 2=More than \$1 million to \$3 million | 99= (REFUSED) |
| 3=More than \$3 million to \$6 million | |
| 4=More than \$6 million to \$8 million | |
| 5=More than \$8 million to \$12 million | |
| 6=More than \$12 million to \$16 million | |
| 7= More than \$16 million to \$19 million | |
| 8= More than \$19 million to \$22 million | |
| 9= More than \$22 million to \$28 million | |
| 10=More than \$28 million | |

G1a. We're interested in whether your business has experienced barriers or difficulties related to working with, or attempting to work with, [Caltrans] or other government or public agencies, entities, or offices in [California]. Do you have any thoughts to share?

1=VERBATIM [PROBE FOR COMPLETE THOUGHTS]

97=No comments

G1b. Do you have any additional thoughts to share regarding general marketplace conditions in [California], being successful in your industry, or obtaining work?

1=VERBATIM [PROBE FOR COMPLETE THOUGHTS]

97=No comments

G2. Would you be willing to participate in a follow-up interview about any of those topics?

1=Yes

2=No

Just a few final questions.

H1. What is your name?

1=VERBATIM

H2. What is your position at [BUSINESS NAME/NEW BUSINESS NAME]?

1=Receptionist

2=Owner

3=Manager

4=CFO

5=CEO

6=Assistant to Owner/CEO

7=Sales manager

8=Office manager

9=President

10=Other, specify _____

99=Refused

H3. At what email address can you be reached?

1= VERBATIM

Thank you very much for your participation. If you have any questions or concerns, please contact [Caltrans contact person].

If you have any questions for the Disparity Study project team or wish to submit written questions, comments, or insights about the marketplace, please email [Caltrans Disparity Study email address].

APPENDIX D.

Quantitative Analyses of Marketplace Conditions

BBC Research & Consulting (BBC) conducted quantitative analyses of marketplace conditions in California to assess whether people of color (POCs), women, and POC- and woman-owned businesses face any barriers in the state's construction and professional services industries. We examined marketplace conditions in four primary areas:

- **Human capital**, to assess whether POCs and women face barriers related to education, employment, and gaining experience;
- **Financial capital**, to assess whether POCs and women face barriers related to wages, homeownership, personal wealth, and financing;
- **Business ownership**, to assess whether POCs and women own businesses at rates comparable to White Americans and men, respectively; and
- **Business success** to assess whether POC- and woman-owned businesses have outcomes similar to those of other businesses.

Appendix D presents a series of figures that show results from those analyses. Key results along with information from secondary research are presented in Chapter 4.

Figure D-1.
Percentage of all workers aged 25
and older with at least a four-year
degree, California, 2018-2022

Note:

** Denotes that the difference in proportions
between the POC group and White Americans or
between women and men is statistically significant
at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

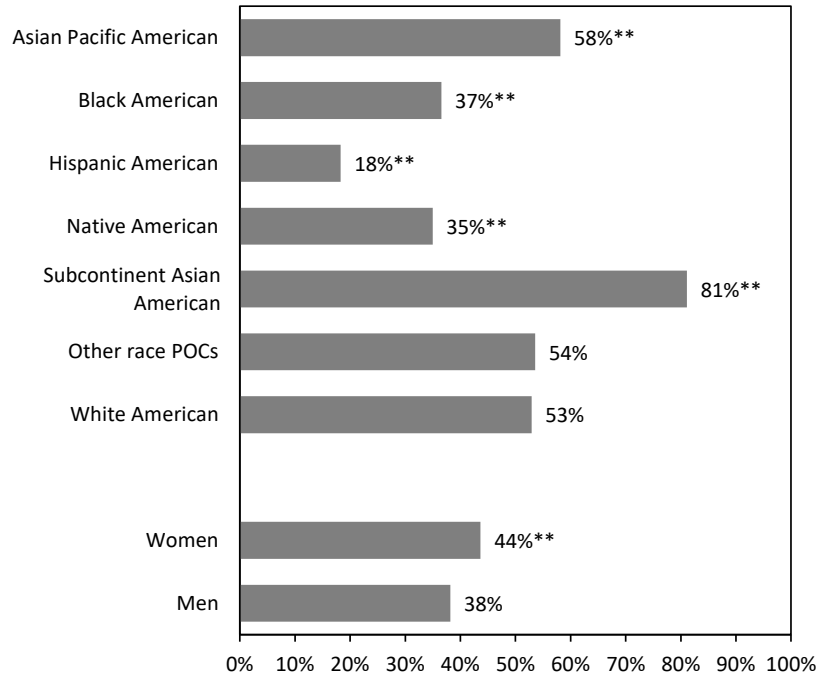


Figure D-1 indicates that, compared to White American workers (53%), Black American (37%), Hispanic American (18%), and Native American (35%) workers in California are less likely to have four-year college degrees.

**Figure D-2.
Predictors of college completion,
California, 2018-2022**

Notes:

The regression included 724,526 observations.

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

The referent for each set of categorical variables variable is as follows: White Americans for the race variables.

Source:

BBC from 2018-2022 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
Age	-0.0092 **
Age-squared	0.0000 **
Disabled	-0.3215 **
Speaks English well	1.1378 **
Asian Pacific American	0.2286 **
Black American	-0.4405 **
Hispanic American	-0.8964 **
Native American	-0.5075 **
Subcontinent Asian American	0.8786 **
Other race POC	0.0155
Women	0.1439 **
Constant	-0.7547 **

Figure D-2 indicates that, in California, Black Americans, Hispanic Americans, and Native Americans are less likely to complete college compared to White Americans, even after statistically accounting for other personal factors.

Figure D-3.
Demographic characteristics of workers in study-related industries and all industries,
California, 2018-2022

Group	All Industries (n=916,686)	Construction (n=54,188)	Professional Services (n=10,416)
Race/ethnicity			
Asian Pacific American	14.8 %	5.2 % **	19.5 % **
Black American	6.2 %	2.6 % **	3.0 % **
Hispanic American	38.6 %	55.9 % **	18.7 % **
Native American	0.9 %	0.9 %	0.9 %
Subcontinent Asian American	2.7 %	0.4 % **	3.9 % **
Other race POCs	0.8 %	0.7 % **	0.8 %
Total POC	63.9 %	65.8 %	46.9 %
White American	36.1 %	34.2 % **	53.1 % **
Total	100.0 %	100.0 %	100.0 %
Gender			
Women	45.5 %	9.7 % **	29.1 % **
Men	54.5 %	90.3 % **	70.9 % **
Total	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 from 2018-2022 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 D-3 indicates that, compared to all industries considered together:

- Smaller percentages of Asian Pacific Americans (5.2%), Black Americans (2.6%), Subcontinent Asian Americans (0.4%), and other race POCs (0.7%) work in the California construction industry. In addition, a smaller percentage of women (9.7%) work in the California construction industry.
- Smaller percentages of Black Americans (3.0%) and Hispanic Americans (18.7%) work in the California professional services industry. In addition, a smaller percentage of women (29.1%) work in the California professional services industry.

Figure D-4.
Unemployment rates, California,
2018-2022

Note:

** Denotes that the difference in proportions between the POC group and White Americans or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

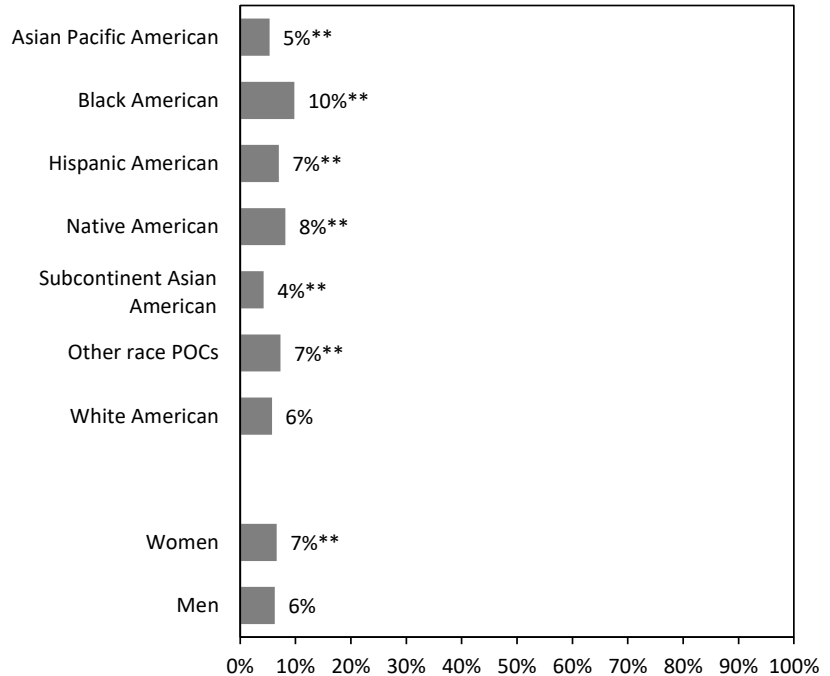


Figure D-4 indicates that Black Americans (10%), Hispanic Americans (7%), Native Americans (8%), and other race POCs (7%) exhibit greater unemployment rates than White Americans (6%) in California. Additionally, women (7%) exhibit a greater unemployment rate than men (6%).

**Figure D-5.
Predictors of
unemployment, California,
2018-2022**

Notes:

The regression included 807,627 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 White Americans for the race variables.

Source:

The referent for each set of categorical variables variable is as follows: high school diploma for the education variables and White Americans for the race variables.

Variable	Coefficient
Age	-0.0264 **
Age-squared	0.0002 **
Married	-0.2303 **
Disabled	0.3795 **
Number of children in household	-0.0098 **
Number of people over 65 in household	0.0625 **
Speaks English well	0.0389 **
Less than high school education	0.1085 **
Some college	-0.0599 **
Four-year degree	-0.1598 **
Advanced degree	-0.2833 **
Asian Pacific American	-0.0364 **
Black American	0.2069 **
Hispanic American	-0.0573 **
Native American	0.1047 **
Subcontinent Asian American	-0.0436 **
Other race POC	0.0889 **
Women	0.0986 **
Extraction and agriculture	-0.0993 **
Construction	-0.3980 **
Wholesale trade	-0.4807 **
Retail trade	-0.4117 **
Transportation, warehouse, & information	-0.3726 **
Professional services	-0.4578 **
Education	-0.5557 **
Health care	-0.7724 **
Other services	-0.3519 **
Public administration and social services	-0.6690 **
Constant	-0.4630 **

Figure D-5 indicates that Black Americans, Native Americans, and other race POCs are more likely to be unemployed compared to White Americans, even after statistically accounting for other personal factors. In addition, women are more likely to be unemployed relative to men, even after statistically accounting for other personal characteristics.

**Figure D-6.
Percentage of non-owner
workers who worked as a
manager in each study-related
industry, California, 2018-2022**

Note:

*, ** Denotes that the difference in proportions between the POC group and White Americans or between women and men) is statistically significant at the 90% and 95% confidence levels, respectively.

Source:

BBC from 2018-2022 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/>.

Group	Construction	Professional Services
Race/ethnicity		
Asian Pacific American	12.3 % **	2.1 % **
Black American	7.2 % **	2.0 % *
Hispanic American	3.6 % **	1.4 % **
Native American	14.6 %	5.6 %
Subcontinent Asian American	20.4 %	4.7 %
Other race POCs	11.2 % *	2.7 %
White American	15.8 %	4.1 %
Gender		
Women	9.7 % **	1.9 % **
Men	8.0 %	3.7 %
All individuals	8.2 %	3.1 %

Figure D-6 indicates that:

- Smaller percentages of Asian Pacific Americans (12.3%), Black Americans (7.2%), Hispanic Americans (3.6%), and other race POCs (11.2%) than White Americans (15.8%) work as managers or supervisors in the California construction industry.
- Smaller percentages of Asian Pacific Americans (2.1%), Black Americans (2.0%), and Hispanic Americans (1.4%) than White Americans (4.1%) work as managers or supervisors in the California professional services industry. A smaller percentage of women (1.9%) than men (3.7%) work as managers or supervisors in the California professional services industry.

**Figure D-7.
Predictors of management in
construction, California, 2018-
2022**

Notes:

The regression included 32,831 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 White Americans for the race variables.

Source:

BBC from 2018-2022 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	-3.1261 **
Age	0.0412 **
Age-squared	-0.0003 **
Married	0.2419 **
Disabled	-0.0659
Number of children in household	-0.0026
Number of people over 65 in household	-0.0642 **
Part time	-0.3859 **
Speaks English well	0.5630 **
Less than high school education	-0.2641 **
Some college	0.3172 **
Four-year degree	0.8682 **
Advanced degree	0.9236 **
Asian Pacific American	-0.2167 **
Black American	-0.3489 **
Hispanic American	-0.4621 **
Native American	0.0803
Subcontinent Asian American	-0.0775
Other race POC	-0.0681
Women	-0.2233 **

Figure D-7 indicates that Asian Pacific Americans, Black Americans, and Hispanic Americans are less likely to work as managers or supervisors in the California construction industry compared to White Americans, even after statistically accounting for other personal characteristics. In addition, women are less likely to work as managers or supervisors in the California construction industry relative to men, even after statistically accounting for other personal characteristics.

**Figure D-8.
Predictors of management in
professional services,
California, 2018-2022**

Notes:

The regression included 7,315 observations.

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

The referent for each set of categorical variables is as follows: high school diploma for the education variables and White Americans for the race variables.

Source:

BBC from 2018-2022 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	-4.7904 **
Age	0.0804 **
Age-squared	-0.0007 **
Married	0.1261
Disabled	0.0872
Number of children in household	0.0289
Number of people over 65 in household	-0.0274
Part time	-0.2871 **
Speaks English well	0.6304
Less than high school education	-0.0153
Some college	0.0422
Four-year degree	0.2420
Advanced degree	0.4416 **
Asian Pacific American	-0.2396 **
Black American	-0.2608
Hispanic American	-0.2366 *
Native American	0.3023
Subcontinent Asian American	0.1347
Other race POC	-0.0614
Women	-0.2808 **

Figure D-8 indicates that Asian Pacific Americans and Hispanic Americans are less likely to work as managers or supervisors in the California professional services industry compared to White Americans, even after statistically accounting for other personal factors. In addition, women are less likely to work as managers or supervisors in the California professional services industry relative to men, even after statistically accounting for other personal characteristics.

Figure D-9.
Mean annual wages, California,
2018-2022

Notes:

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 White Americans (for POC groups) and from men (for women) at the 95% confidence level.

Source:

BBC from 2018-2022 ACS 5% Public Use Microdata sample. The raw data extract was obtained through the IPUMS program of the Minnesota Population Center:
<http://usa.ipums.org/usa/>.

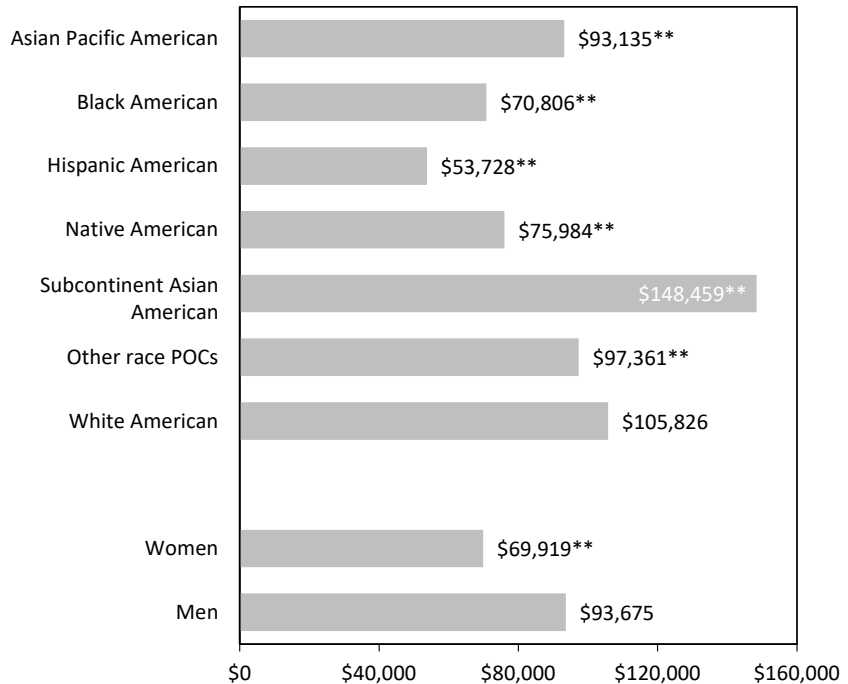


Figure D-9 indicates that Asian Pacific American (\$93,135), Black American (\$70,806), Hispanic American (\$53,728), Native American (\$75,984), and other race POC (\$97,361) workers in California earn less in wages than White American workers (\$105,826). In addition, women (\$69,919) in California earn less in wages than men (\$93,675).

**Figure D-10.
Predictors of annual wages
(regression), California, 2018-
2022**

Notes:

The regression includes 447,575 observations.

The sample universe is all non-institutionalized, employed individuals aged 25-64 who 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: White Americans for the race variables, high school diploma for the education variables, manufacturing for industry variables.

Source:

BBC from 2018-2022 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	9659.712 **
Asian Pacific American	0.904 **
Black American	0.819 **
Hispanic American	0.844 **
Native American	0.869 **
Subcontinent Asian American	1.020 **
Other race POCs	0.950 **
Women	0.805 **
Less than high school education	0.889 **
Some college	1.192 **
Four-year degree	1.708 **
Advanced degree	2.361 **
Disabled	0.801 **
Military experience	1.022 **
Speaks English well	1.344 **
Age	1.065 **
Age-squared	0.999 **
Married	1.125 **
Children	1.003 *
Number of people over 65 in household	0.915 **
Public sector worker	1.104 **
Manager	1.278 **
Part time worker	0.379 **
Extraction and agriculture	0.734 **
Construction	0.988 *
Wholesale trade	0.912 **
Retail trade	0.769 **
Transportation, warehouse, & information	1.036 **
Professional services	1.130 **
Education	0.680 **
Health care	1.030 **
Other services	0.742 **
Public administration and social services	0.807 **

Figure D-10 indicates that, compared to White American workers in California, Asian Pacific American, Black American, Hispanic American, Native American, and other race POC workers earn less in annual wages, even after accounting for various other personal characteristics. (For example, the model indicates that being a Black American worker is associated with making approximately \$0.82 for every dollar a White American worker makes, all else being equal.) In addition, compared to workers who are men in California, women workers earn less in annual wages, even after accounting for various other personal characteristics.

Figure D-11.
Median family net worth (in
thousands), United States, 2022

Note:

All amounts in 2022 dollars.

Source:

Federal Reserve Survey of Consumer Finances
data 2022.

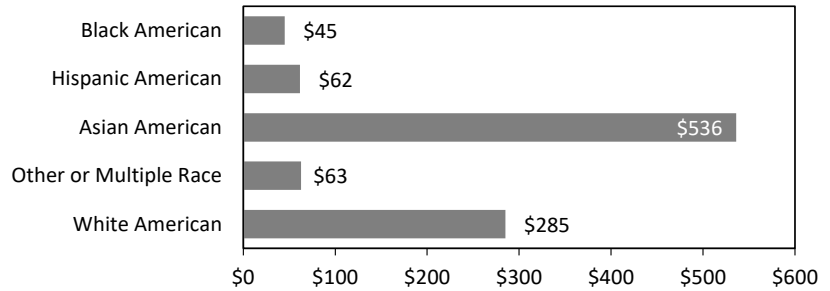


Figure D-11 indicates that Black Americans (\$45,000), Hispanic Americans (\$62,000), and other or multiple race Americans (\$63,000) in the United States have a lower median family net worth than White Americans (\$285,000). In contrast, Asian Americans (\$536,000) in the United States have a greater median family net worth than White Americans.

Figure D-12.
Homeownership rates,
California, 2018-2022

Notes:

The sample universe is all households.

** Denotes statistically significant differences from White Americans at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

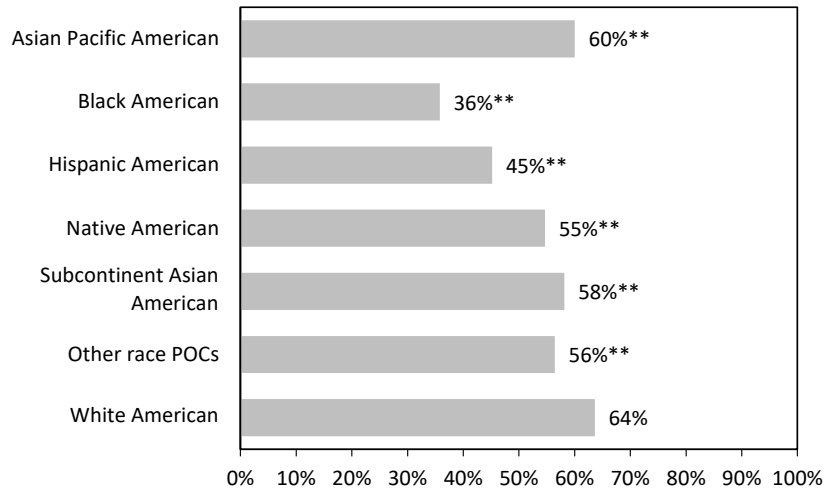


Figure D-12 indicates that Asian Pacific Americans (60%), Black Americans (36%), Hispanic Americans (45%), Native Americans (55%), Subcontinent Asian Americans (58%), and other race POCs (56%) in California exhibit homeownership rates less than that of White Americans (64%).

Figure D-13.
Median home values, California,
2018-2022

Note:

The sample universe is all owner-occupied housing units.

Source:

BBC from 2018-2022 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/>.

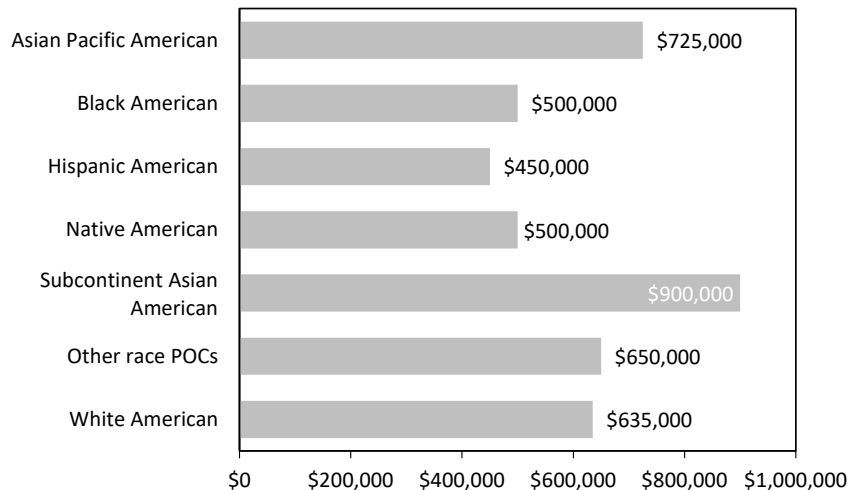


Figure D-13 indicates that, in California, Black American (\$500,000), Hispanic American (\$450,000), and Native American (\$500,000) homeowners own homes that, on average, are worth less than those of White American homeowners (\$635,000). In contrast, Asian Pacific American (\$725,000) and Subcontinent Asian American (\$900,000) homeowners own homes that, on average, are worth more than those of White American homeowners.

Figure D-14
Denial rates of conventional
purchase loans for high-income
households, California, 2022

Note:

High-income borrowers are those households with 120% or more of the HUD/FFIEC area median family income (MFI). The MFI data are calculated by the FFIEC.

Source:

FFIEC HMDA data 2022. The raw data extract was obtained from the Federal Financial Institutions Examination Council's HMDA data tool: <https://ffiec.cfpb.gov/data-browser/>.

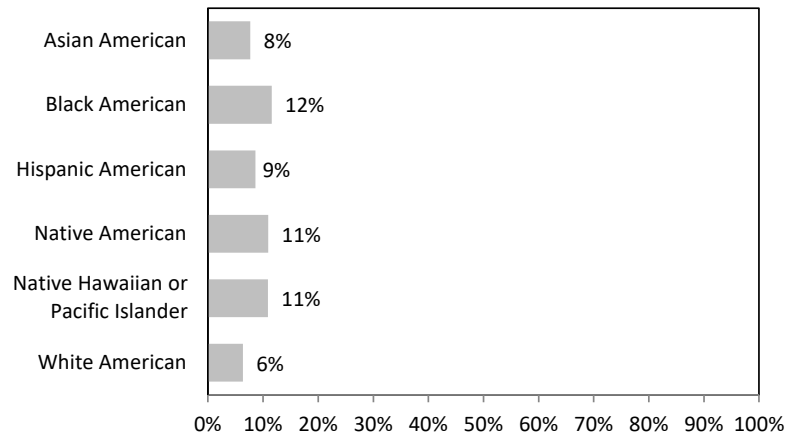


Figure D-14 indicates that Asian Americans (8%), Black Americans (12%), Hispanic Americans (9%), Native Americans (11%), and Native Hawaiian or Pacific Islanders (11%) in California are denied home loans at greater rates than White Americans (6%).

Figure D-15.
Loan, line of credit, and cash
advance denial rates, United
States, 2023

Source:
BBC from 2023 Small Business Credit Survey.

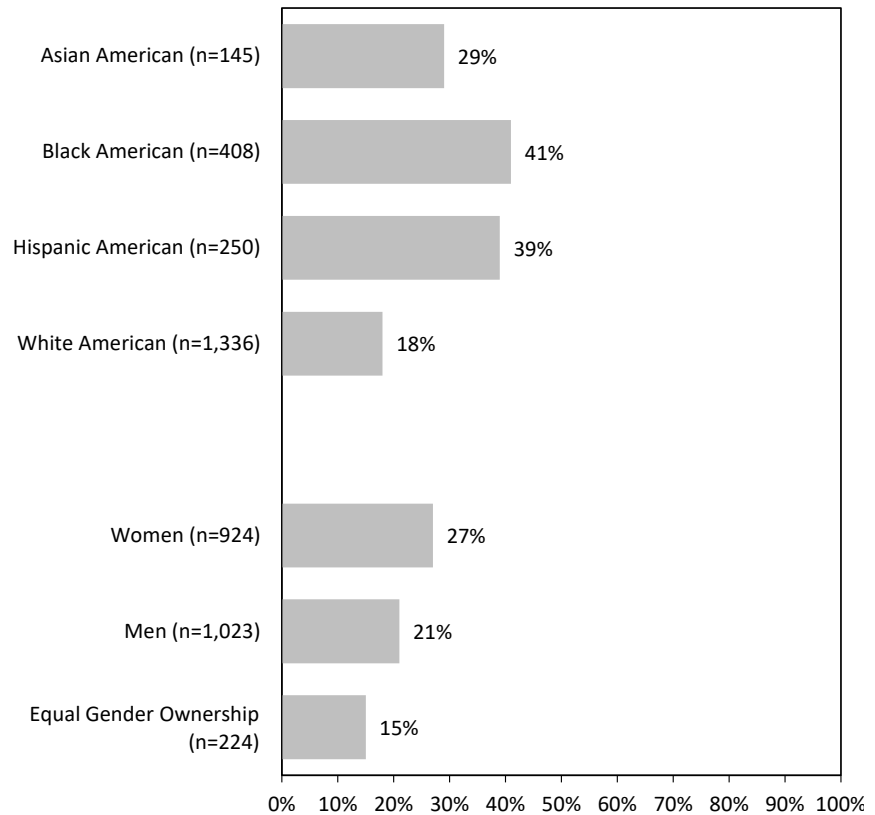


Figure D-15 indicates that Asian American- (29%), Black American- (41%), and Hispanic American- (39%) owned businesses in the United States are denied loans at greater rates than White American-owned businesses (18%). In addition, woman-owned businesses (27%) are denied loans at greater rates than businesses owned by men (21%).

Figure D-16.
Businesses that did not apply for
loans due to fear of denial,
United States, 2023

Source:
BBC from 2023 Small Business Credit Survey.

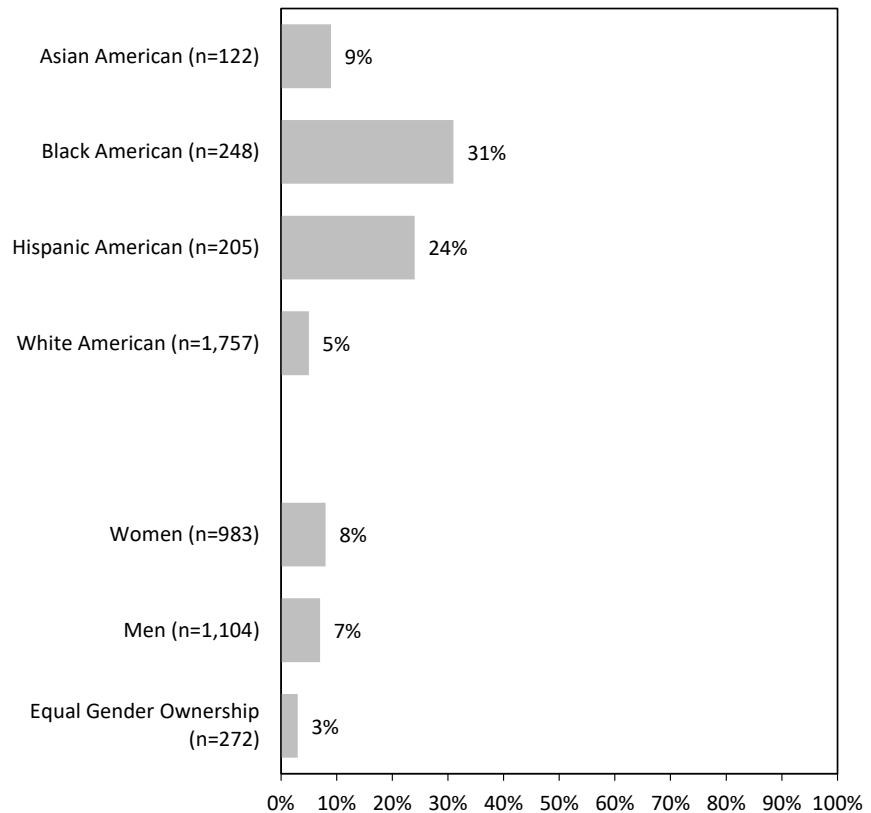


Figure D-16 indicates that Asian American- (9%), Black American- (31%), and Hispanic American- (24%) owned businesses in the United States are more likely than White American-owned businesses (5%) to not apply for loans due to a fear of denial. In addition, woman-owned businesses (8%) are more likely than businesses owned by men (7%) to not apply for loans due to a fear of denial.

Figure D-17.
Owner demographic characteristics of businesses in study-related industries and all industries, California, 2020

Group	All Industries (4,111,943)	Construction (325,269)	Professional Services (677,840)
Race/ethnicity			
POC	49.1 %	49.5 %	35.9 % **
White American	46.9 %	48.3 % *	60.7 % **
Equally POC/White American	0.8 %	5 %	0.7 %
Gender			
Female	37.6 %	7.9 % **	38.8 % **
Male	55.1 %	87.2 % **	55.5 % *
Equally male/female	4.1 %	3.1 % **	3.0 % **

Note: *, ** Denotes that the difference in proportions between businesses in each study-related industry and businesses in all industries is statistically significant at the 90% and 95% confidence levels, respectively.

Source: BBC from 2018 Nonemployer Statistics by Demographics series: Statistics for Employer and Nonemployer Firms.

Figure D-17 indicates that, compared to all industries considered together, a smaller percentage of construction businesses are owned by women (7.9%) in California. Additionally, a smaller percentage of professional services businesses are owned by POCs (35.9%) in California.

Figure D-18.
Self-employment rates in study-
related industries, California,
2018-2022

Note:

** Denotes that the difference in proportions between the POC group and White Americans, or between women and men is statistically significant at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

Group	Construction	Professional Services
Race/ethnicity		
Asian Pacific American	26.7 %	9.6 % **
Black American	16.8 % **	5.0 % **
Hispanic American	17.7 % **	10.5 % **
Native American	23.4 % **	10.8 % **
Subcontinent Asian American	18.7 % **	6.6 % **
Other race POC	25.4 %	18.5 %
White American	27.6 %	18.3 %
Gender		
Women	14.7 % **	12.0 % **
Men	22.4 %	15.1 %
All individuals	21.7 %	14.2 %

Figure D-18 indicates that in California:

- Black Americans (16.8%), Hispanic Americans (17.7%), Native Americans (23.4%), and Subcontinent Asian Americans (18.7%) own construction businesses at rates less than that of White Americans (27.6%), and women (14.7%) own construction businesses at a rate less than that than men (22.4%).
- Asian Pacific Americans (9.6%), Black Americans (5.0%), Hispanic Americans (10.5%), Native Americans (10.8%), and Subcontinent Asian Americans (6.6%) own professional services businesses at rates less than that of White Americans (18.3%), and women (12.0%) own professional services businesses at a rate less than that than men (15.1%).

Figure D-19.
Predictors of business
ownership in construction
(regression), California, 2018-
2022

Notes:

The regression included 44,222 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 White Americans for the race variables.

Source:

BBC from 2018-2022 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	-1.8898 **
Age	0.0309 **
Age-squared	-0.0001
Married	0.0324
Disabled	-0.0383
Number of children in household	0.0033
Number of people over 65 in household	0.0028
Owens home	-0.1921 **
Home value (\$000s)	0.0001 **
Monthly mortgage payment (\$000s)	0.0186 **
Interest and dividend income (\$000s)	0.0006
Income of spouse or partner (\$000s)	0.0003
Speaks English well	0.0259
Less than high school education	0.1393 **
Some college	0.0569 **
Four-year degree	-0.0588 *
Advanced degree	-0.1526 **
Asian Pacific American	0.0100
Black American	-0.2917 **
Hispanic American	-0.2652 **
Native American	-0.0818
Subcontinent Asian American	-0.1090
Other race POC	0.0789
Women	-0.3704 **

Figure D-19 indicates that Black Americans and Hispanic Americans are less likely to own construction businesses in California compared to White Americans, even after statistically accounting for other personal factors. In addition, women are less likely to own construction businesses in California relative to men, even after statistically accounting for other personal characteristics.

Figure D-20.
Predictors of business
ownership in professional
services (regression), California,
2018-2022

Notes:

The regression included 9,011 observations.

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

The referent for each set of categorical variables is as follows: high school diploma for the education variables and White Americans for the race variables.

Source:

BBC from 2018-2022 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	-3.4074 **
Age	0.0519 **
Age-squared	-0.0002 *
Married	0.0382
Disabled	-0.0521
Number of children in household	0.0050
Number of people over 65 in household	0.0577
Owns home	-0.2802 **
Home value (\$000s)	0.0001 **
Monthly mortgage payment (\$000s)	0.0080
Interest and dividend income (\$000s)	0.0014 **
Income of spouse or partner (\$000s)	0.0009 **
Speaks English well	0.4238
Less than high school education	0.0534
Some college	0.1361
Four-year degree	0.1776
Advanced degree	0.0983
Asian Pacific American	-0.2780 **
Black American	-0.5653 **
Hispanic American	-0.0536
Native American	-0.2644
Subcontinent Asian American	-0.4277 **
Other race POC	0.2101
Women	-0.0715

Figure D-20 indicates that Asian Pacific Americans, Black Americans, and Subcontinent Asian Americans are less likely to own professional services businesses in California compared to White Americans, even after statistically accounting for other personal factors.

Figure D-21.
Disparities in business
ownership rates for California
construction workers, 2018-2022

Notes:

The benchmark figure can only be estimated for records with an 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 from 2018-2022 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/>.

Group	Self-Employment Rate		Disparity Index (100 = Parity)
	Actual	Benchmark	
Black American	17.6%	25.1%	70
Hispanic American	17.7%	26.6%	67
White women	18.3%	30.0%	61

Figure D-21 indicates that Black Americans, Hispanic Americans, and White women working in construction in California own businesses at rates that are 70 percent, 67 percent, and 61 percent, respectively, that of similarly situated White men.

**Figure D-22.
Disparities in business
ownership rates for California
professional services workers,
2018-2022**

Notes:

The benchmark figure can only be estimated for records with an 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 from 2018-2022 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/>.

Group	Self-Employment Rate		Disparity Index (100 = Parity)
	Actual	Benchmark	
Asian Pacific American	10.0%	15.9%	63
Black American	5.7%	14.5%	39
Subcontinent Asian American	7.4%	14.3%	52

Figure D-22 indicates that Asian Pacific Americans, Black Americans, and Subcontinent Asian Americans working in professional services in California own businesses at rates that are 63 percent, 39 percent, and 52 percent, respectively, that of similarly situated White men.

Figure D-23.
Businesses in poor financial
condition, United States,
2023

Source:
BBC from 2023 Small Business Credit
Survey.

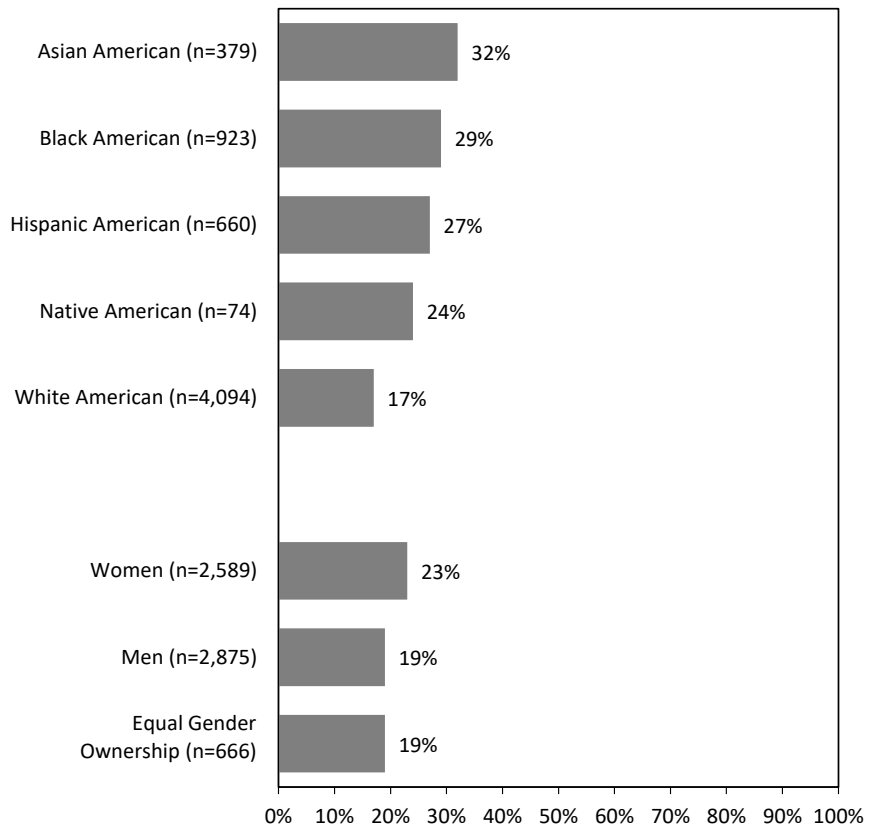


Figure D-23 indicates that Asian American- (32%), Black American- (29%), Hispanic American- (27%), and Native American-owned businesses (24%) are more likely than White American-owned businesses (17%) to report being in poor financial condition. In addition, women-owned businesses (23%) are more likely to report being in poor financial condition than businesses owned by men (19%).

Figure D-24.
Mean annual business receipts
(in thousands), California

Note:

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

Source:

BBC from 2017 Annual Business Survey.

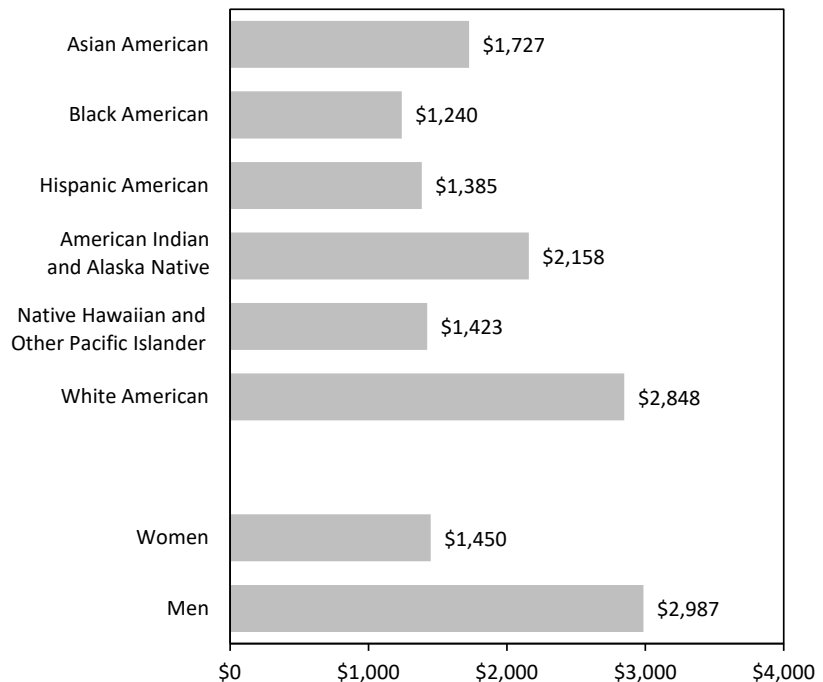


Figure D-24 indicates that Asian American-, Black American-, Hispanic American-, American Indian and Alaska Native-, and Native Hawaiian and other Pacific Islander-owned businesses in California have mean annual business receipts less than that of White American-owned businesses (\$2.85 million). In addition, woman-owned businesses (\$1.45 million) have mean annual business receipts less than that of businesses owned by men (\$2.99 million).

Figure D-25.
Mean annual business owner
earnings, California, 2018-2022

Notes:

The sample universe is business owners aged 16 and over who reported positive earnings. All amounts in 2021 dollars.

** Denotes statistically significant differences from White Americans (for POC groups) and from men (for women) at the 95% confidence level.

Source:

BBC from 2018-2022 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/>.

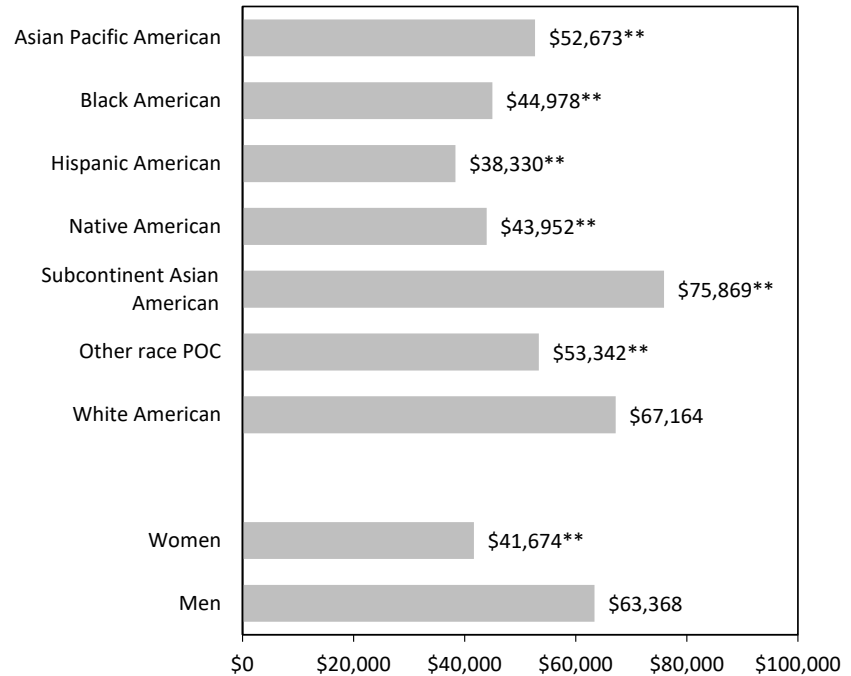


Figure D-25 indicates that, in California, Asian Pacific American (\$52,673), Black American (\$44,978), Hispanic American (\$38,330), Native American (\$43,952), and other race POC (\$53,342) business owners earn less on average than White American business owners (\$67,164). In addition, woman business owners (\$41,674) earn less on average than male business owners (\$63,368).

Figure D-26.
Predictors of business owner
earnings (regression), California,
2018-2022

Notes:

The regression includes 59,945 observations.

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

The sample universe is business owners aged 16 and over who reported positive earnings.

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

The referent for each set of categorical variables is as follows: high school diploma for the education variables and White American for the race variables.

Source:

BBC from 2018-2022 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	1,500.574 **
Age	1.116 **
Age-squared	0.999 **
Married	1.190 **
Speaks English well	1.216 **
Disabled	0.642 **
Less than high school	0.789 **
Some college	1.016
Four-year degree	1.313 **
Advanced degree	1.822 **
Asian Pacific American	0.897 **
Black American	0.804 **
Hispanic American	0.997
Native American	0.792 **
Subcontinent Asian American	1.127 *
Other race POC	0.730 **
Women	0.593 **

Figure D-26 indicates that Asian Pacific American, Black American, and Native American owners earn less than White American business owners in California. In addition, women business owners earn less than business owners who are men.

APPENDIX E.

Disparity Analysis Results Tables

As part of the disparity analysis, BBC Research & Consulting (BBC) compared the actual participation, or *utilization*, of person of color (POC)- and woman-owned businesses in transportation-related prime contracts and subcontracts the California Department of Transportation (Caltrans) awarded between January 1, 2020 and December 31, 2023 (the *study period*) with the percentage of contract dollars those businesses might be expected to receive based on their *availability* for that work.¹ Appendix E presents detailed results from the disparity analysis for relevant business groups and various sets of contracts Caltrans awarded during the study period.

A. Format and Information

Each table in Appendix E presents disparity analysis results for a different set of contracts. For example, Figure E-1 presents disparity analysis results for all contracts and procurements BBC examined as part of the study considered together. A review of Figure E-1 introduces the calculations and format of all disparity analysis tables in Appendix E. As shown in Figure E-1, the tables present information about each relevant business group 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 POC-owned businesses, regardless of whether they were certified as DBEs.
- Rows (5) through (9) present results for businesses of each relevant racial/ethnic group, regardless of whether they were certified as DBEs.
- Row (10) presents results for POC-owned businesses, regardless of whether they were certified as DBEs, located outside of California.
- Rows (11) through (18) present utilization analysis results for businesses of each relevant racial/ethnic and gender group that were certified as DBEs.
- Row (19) presents results for POC-owned businesses located outside of California that were certified as DBEs.

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.

1. Utilization analysis results. Each results table includes the same columns of information:

- Column (a) presents the total number of prime contracts and subcontracts (i.e., *contract elements*) BBC analyzed as part of the contract set. As shown in row (1) of column (a) of Figure E-1, BBC analyzed 48,010 contract elements Caltrans and subrecipient local agencies awarded during the study period. The values presented in column (a) represent the number of contract elements in which businesses of each group participated. For example, as shown in row (5) of column (a), Asian Pacific American-owned businesses participated in 2,866 prime contracts and subcontracts Caltrans and subrecipient local agencies awarded during the study period.
- Column (b) presents the dollars (in thousands) associated with the set of contract elements. As shown in row (1) of column (b) of Figure E-1, BBC examined approximately \$19.5 billion that were associated with the 48,010 contract elements Caltrans awarded during the study period. The value presented in column (b) for each individual business group represents the dollars businesses of that particular group received on the set of contract elements. For example, as shown in row (5) of column (b), Asian Pacific American-owned businesses received approximately \$785 million of the prime contract and subcontract dollars Caltrans awarded during the study period.
- Column (c) presents the dollars (in thousands) that were associated with the set of contract elements, after adjusting those dollars for the fact that BBC collected data on a sample of contracts subrecipient local agencies awarded through the Local Assistance Program. The study team weighted the data to be representative of the entire set of those contracts and adjusted dollars each relevant racial/ethnic and gender group received during the study period accordingly. Chapter 3 describes the sampling procedures BBC used. For example, as shown in row (5) of column (c), Asian Pacific American-owned businesses received approximately \$810 million of the prime contract and subcontract dollars Caltrans awarded during the study period after adjusting for data weights.
- Column (d) presents the participation of each business 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. For example, for Asian Pacific American-owned businesses, the study team divided \$810 million by \$19.5 billion and multiplied by 100 for a result of 4.1 percent, as shown in row (5) of column (d).

2. Availability results. Column (e) of Figure E-1 presents the availability of each relevant group for all contract elements BBC analyzed as part of the contract set. Availability estimates, which are represented as percentages of the total contracting dollars associated with the set of contract elements, serve as benchmarks against which to compare the participation of specific groups for specific sets of contracts. For example, as shown in row (5) of column (e), the availability of Asian Pacific American-owned businesses for Caltrans work is 5.7 percent. That is, Asian Pacific American-owned businesses might be expected to receive 5.7 percent of relevant Caltrans contract and procurement dollars based on their availability for that work.

3. Disparity indices. BBC also calculated a disparity index, or ratio, for each relevant racial/ethnic and gender group. Column (f) of Figure E-1 presents the disparity index for each group. For example, as reported in row (5) of column (f), the disparity index for Asian Pacific American-owned businesses was

71.4, indicating that they actually received approximately \$0.71 for every dollar they might be expected to receive based on their availability for the relevant prime contracts and subcontracts Caltrans and subrecipient local agencies awarded during the study period. For disparity indices exceeding 200, BBC reported an index of “200+.” When there was no participation or availability for a particular group for a particular set of contracts, BBC reported a disparity index of “100,” indicating parity.

B. Index and Tables

The table of contents presents an index of the sets of projects for which BBC analyzed analysis results. In addition, the heading of each table in Appendix E provides a description of the subset of projects BBC analyzed for that particular set of projects.