

CHAPTER ES.

Executive Summary

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 help evaluate the effectiveness of its implementation of the Federal DBE Program in encouraging the participation of minority- and woman-owned businesses in Federal Highway Administration- (FHWA-) funded contracts.¹

A disparity study examines whether there are any disparities between:

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

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

- The legal framework surrounding minority- and woman-owned businesses programs;
- Marketplace conditions for minority- and woman-owned businesses; and
- Contracting practices and business programs agencies use to award contracts.

Caltrans could use information from the disparity study to help refine its implementation of the Federal DBE Program, including setting an overall goal for the participation of DBEs in its FHWA-funded contracts and procurements and determining which program measures to use to encourage the participation of relevant groups of minority- and woman-owned businesses.

BBC summarizes key information from the 2021 Caltrans Disparity Study in five parts:

- A. Analyses in the disparity study;
- B. Availability analysis results;
- C. Utilization analysis results;
- D. Disparity analysis results; and
- E. Program considerations.

¹ The study team considered a contract to be FHWA-funded if it included at least one dollar of FHWA funding.

A. Analyses in the Disparity Study

BBC examined extensive information related to outcomes for minority- and woman-owned businesses in Caltrans' transportation-related contracting as well as the agency's implementation of the Federal DBE Program:

- The study team conducted an analysis of regulations, case law, and other information to guide methodology for the disparity study, which included a review of legal requirements related to minority- and woman-owned business programs, and specifically, the Federal DBE Program (see Chapter 2 and Appendix B).
- BBC conducted quantitative analyses of outcomes for minorities, women, and minority- and woman-owned businesses throughout California. In addition, the study team collected anecdotal evidence about potential barriers individuals and businesses face in the local marketplace through in-depth interviews, surveys, public meetings, and focus groups (see Chapter 3, Appendix C, and Appendix D).
- BBC estimated the percentage of Caltrans transportation-related contract and procurement dollars minority- and woman-owned businesses are available to perform. That analysis was based on Caltrans data and information gathered from surveys the study team conducted with businesses that work in industries related to the specific types of transportation-related construction and professional services contracts and procurements Caltrans and subrecipient local agencies award (see Chapter 5 and Appendix E).
- BBC analyzed the dollars Caltrans and subrecipient local agencies awarded to minority- and woman-owned businesses on transportation-related construction and professional services contracts and procurements during the study period (see Chapters 4 and 6).
- BBC examined whether there were any disparities between the participation and availability of minority- and woman-owned businesses on transportation-related construction and professional services contracts Caltrans and subrecipient local agencies awarded during the study period (see Chapter 7 and Appendix F).
- BBC reviewed the measures Caltrans uses to encourage the participation of minority- and woman-owned businesses in its transportation-related contracts and procurements as well its implementation of the Federal DBE Program (see Chapter 8).
- BBC provided guidance related to Caltrans' next overall goal for the participation of DBEs in its FHWA-funded contracts and procurements as well as additional program options and potential refinements to current contracting practices (see Chapters 9 and 10).

B. Availability Analysis Results

BBC used a *custom census* approach to analyze the availability of minority- and woman-owned businesses for Caltrans' transportation-related prime contracts and subcontracts, which relied on information from surveys the study team conducted with thousands of potentially available businesses located in California and information about the contracts and procurements Caltrans and subrecipient local agencies awarded during the study period. That approach allowed BBC to develop a representative, unbiased, and statistically-valid database of relevant California businesses to estimate the percentage of relevant Caltrans contract and procurement dollars for

which minority- and woman-owned businesses are available. BBC presents availability analysis results overall and for different subsets of contracts and procurements.

1. All contracts and procurements. Figure ES-1 presents dollar-weighted availability estimates by relevant business group for Caltrans contracts and procurements. Overall, the availability of minority- and woman-owned businesses for relevant Caltrans work is 26.8 percent, indicating that minority- and woman-owned businesses might be expected to receive 26.8 percent of the transportation-related contract and procurement dollars Caltrans and subrecipient local agencies award in construction and professional services.

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

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

Source:
 BBC Research & Consulting availability analysis.

Business group	Availability %
Non-Hispanic white woman-owned	5.8 %
Asian Pacific American-owned	3.1
Black American-owned	1.4
Hispanic American-owned	13.8
Native American-owned	1.2
Subcontinent Asian American-owned	1.5
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Total Minority-owned	21.0 %
Total Minority- and Woman-owned	26.8 %

2. Funding source. As part of the Federal DBE program, Caltrans and subrecipient local agencies use DBE contract goals to award many individual FHWA-funded contracts and procurements. In contrast, because of Proposition 209, Caltrans does not use contract goals or any other race- or gender-conscious measures to award state-funded contracts or procurements. As shown in Figure ES-2, the availability of minority- and woman-owned businesses considered together is higher for Caltrans' FHWA-funded work (27.6%) than for state-funded work (23.4%). Among other factors, that result could be due to the fact that a larger share of FHWA-funded contracts and procurements include subcontracts when compared with state-funded contracts and procurements. Subcontracts tend to be much smaller in size than prime contracts and are thus often more accessible to minority- and woman-owned businesses.

Figure ES-2.
Availability estimates for
FHWA- and state-funded
work

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail and results by group, see Figure F-11 and F-12 in Appendix F.

Source:
 BBC Research & Consulting availability analysis.

Business group	Funding source	
	FHWA-funded	State-funded
Non-Hispanic white woman-owned	5.9 %	5.6 %
Asian Pacific American-owned	3.2	2.7
Black American-owned	1.4	1.2
Hispanic American-owned	14.4	11.1
Native American-owned	1.2	1.4
Subcontinent Asian American-owned	1.5	1.4
Total Minority-owned	21.7 %	17.8 %
Total Minority- and Woman-owned	27.6 %	23.4 %

3. Contract role. Many minority- and woman-owned businesses are small businesses and thus often work as subcontractors. Because of that tendency, it is useful to examine availability estimates separately for Caltrans prime contracts and subcontracts. As shown in Figure ES-3, the availability of minority- and woman-owned businesses considered together was lower for prime contracts (24.4%) than for subcontracts (34.3%). Again, that result could be due to the fact that subcontracts tend to be much smaller in size than prime contracts and are thus often more accessible to minority- and woman-owned businesses.

Figure ES-3.
Availability estimates for
prime contracts and
subcontracts

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

Source:
 BBC Research & Consulting availability analysis.

Business group	Contract role	
	Prime contracts	Subcontracts
Non-Hispanic white woman-owned	4.7 %	9.4 %
Asian Pacific American-owned	2.7	4.2
Black American-owned	0.9	3.1
Hispanic American-owned	13.5	14.6
Native American-owned	1.0	1.8
Subcontinent Asian American-owned	1.6	1.3
Total Minority-owned	19.7 %	24.9 %
Total Minority- and Woman-owned	24.4 %	34.3 %

4. Industry. BBC examined availability analysis results separately for Caltrans construction and professional services work. As shown in Figure ES-4, the availability of minority- and woman-owned businesses considered together was higher for professional services work (28.3%) than for construction work (26.5%).

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

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail, see Figures F-5 and F-6 in Appendix F.
 Source:
 BBC Research & Consulting availability analysis.

Business group	Industry	
	Construction	Professional services
Non-Hispanic white woman-owned	5.0 %	9.9 %
Asian Pacific American-owned	2.5	5.9
Black American-owned	1.2	2.3
Hispanic American-owned	15.4	6.1
Native American-owned	1.3	0.7
Subcontinent Asian American-owned	1.1	3.3
Total Minority-owned	21.5 %	18.4 %
Total Minority- and Woman-owned	26.5 %	28.3 %

C. Utilization Analysis Results

BBC measured the participation of minority- and woman-owned businesses in Caltrans work in terms of *utilization*—the percentage of dollars Caltrans and subrecipient local agencies awarded to those businesses on relevant prime contracts and subcontracts during the study period. BBC measured the participation of minority- and woman-owned businesses in Caltrans work regardless of whether they were certified as DBEs.

1. All contracts and procurements Figure ES-5 presents the percentage of total dollars Caltrans and subrecipient local agencies awarded to minority- and woman-owned businesses on relevant construction and professional services prime contracts and subcontracts during the study period. As shown in Figure ES-5, minority- and woman-owned businesses considered together received 18.5 percent of the relevant contract and procurement dollars Caltrans and subrecipient local agencies awarded during the study period. Twelve percent of those dollars went to minority- and woman-owned businesses that were certified as DBEs. The groups that exhibited the highest levels of participation were Hispanic American-owned businesses (7.5%) and non-Hispanic white woman-owned businesses (6.5%).

Figure ES-5.
Overall utilization results

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

Business group	Utilization %
Minority- and Woman-owned	
Non-Hispanic white woman-owned	6.5 %
Asian Pacific American-owned	1.8
Black American-owned	0.7
Hispanic American-owned	7.5
Native American-owned	0.9
Subcontinent Asian American-owned	1.0
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Total Minority-owned	12.0 %
Total Minority- and Woman-owned	18.5 %
DBE-certified	
Non-Hispanic white woman-owned	4.0 %
Asian Pacific American-owned	1.5
Black American-owned	0.7
Hispanic American-owned	4.0
Native American-owned	0.8
Subcontinent Asian American-owned	1.0
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Total Minority-owned (DBE)	8.0 %
Total Minority- and Woman-owned (DBE)	12.0 %

2. Public Works. It is instructive to examine utilization analysis results separately for Caltrans' FHWA-funded contracts and state-funded contracts, because that comparison provides important information about the efficacy of DBE contract goals—which Caltrans and subrecipient local agencies used to award many FHWA-funded contracts during the study period—in encouraging the participation of minority- and woman-owned businesses. As shown in Figure ES-6, the participation of minority- and woman-owned businesses considered together was higher in FHWA-funded contracts (20.3%) than in state-funded contracts (10.8%), suggesting that Caltrans' use of DBE contract goals during the study period was at least somewhat effective in encouraging minority- and woman-owned business participation.

Figure ES-6.
Utilization analysis results
for FHWA- and state-funded
work

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail and results by group, see Figures F-11 and F-12 in Appendix F.
 Source:
 BBC Research & Consulting utilization analysis.

Business group	Funding source	
	FHWA-funded	State-funded
Non-Hispanic white woman-owned	7.1 %	3.6 %
Asian Pacific American-owned	1.9	1.6
Black American-owned	0.8	0.3
Hispanic American-owned	8.4	3.8
Native American-owned	1.0	0.6
Subcontinent Asian American-owned	1.1	0.8
Total Minority-owned	13.2 %	7.2 %
Total Minority- and Woman-owned	20.3 %	10.8 %

3. Contract role. Figure ES-7 presents utilization analysis results separately for relevant prime contracts and subcontracts Caltrans and subrecipient local agencies awarded during the study period. As shown in Figure ES-7, the participation of minority- and woman-owned businesses considered together was in fact higher in subcontracts (39.4%) than in prime contracts (11.8%). Among other factors, that result could be due to the fact that subcontracts tend to be smaller in size than prime contracts and thus may be more accessible to minority- and woman-owned businesses. In addition, many of the FHWA-funded contracts and procurements included in the analysis were subject to DBE contract goals, which are designed to encourage participation of minority- and woman-owned businesses in subcontracts.

Figure ES-7.
Utilization analysis results by
contract role

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail, see Figures F-12 and F-13 in Appendix F.
 Source:
 BBC Research & Consulting utilization analysis.

Business group	Contract role	
	Prime contracts	Subcontracts
Non-Hispanic white woman-owned	3.2 %	45.1 %
Asian American-owned	1.2	3.9
Black American-owned	0.0	29.5
Hispanic American-owned	0.1	0.5
Native American-owned	0.1	0.7
Total Minority-owned	1.3 %	34.6 %
Total Minority- and Woman-owned	4.5 %	79.7 %

4. Industry. BBC also examined utilization analysis results separately for transportation-related construction and professional services contracts and procurements to determine whether the participation of minority- and woman-owned businesses differs by industry. As shown in Figure ES-8, the participation of minority- and woman-owned businesses considered together was higher in construction work (19.4%) than in professional services work (14.1%).

Figure ES-8.
Availability estimates for
construction and
professional services work

Note:
 Numbers rounded to nearest tenth of 1 percent and thus may not sum exactly to totals.
 For more detail, see Figures F-5 and F-6 in Appendix F.
 Source:
 BBC Research & Consulting utilization analysis.

Business group	Industry	
	Construction	Professional services
Non-Hispanic white woman-owned	6.6 %	5.7 %
Asian Pacific American-owned	1.6	2.9
Black American-owned	0.8	0.3
Hispanic American-owned	8.8	1.5
Native American-owned	1.1	0.0
Subcontinent Asian American-owned	0.5	3.6
Total Minority-owned	12.8 %	8.4 %
Total Minority- and Woman-owned	19.4 %	14.1 %

D. Disparity Analysis Results

Although information about the participation of minority- and woman-owned businesses in Caltrans' transportation-related contracts and procurements is useful on its own, it is even more useful when compared with the level of participation one might expect based on their availability for that work. As part of the disparity analysis, BBC compared the participation of minority- and woman-owned businesses in relevant Caltrans prime contracts and subcontracts with the percentage of contract dollars those businesses might be expected to receive based on their availability for that work. To do so, BBC calculated *disparity indices* for each relevant business group and for various contract sets by dividing percent utilization by percent availability and multiplying by 100. A disparity index of 100 indicates an exact match between participation and availability for a particular group for a particular contract set (referred to as *parity*). A disparity index of less than 100 indicates a disparity between participation and availability. A disparity index of less than 80 indicates a *substantial* disparity between participation and availability and is often taken by courts as *inferences of discrimination* against particular business groups.

1. All contracts and procurements. Figure ES-9 presents disparity indices for all relevant prime contracts and subcontracts Caltrans and subrecipient local agencies awarded during the study period. The line down the center of the graph shows a disparity index level of 100, which indicates parity between participation and availability. For reference, a line is also drawn at a disparity index level of 80, indicating a substantial disparity. As shown in Figure ES-9, overall participation for minority- and woman-owned businesses was substantially lower than one might expect given the availability of those businesses for that work. The disparity index of 69 indicates that minority- and woman-owned businesses received \$0.69 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. Results for individual racial/ethnic and gender groups indicate that:

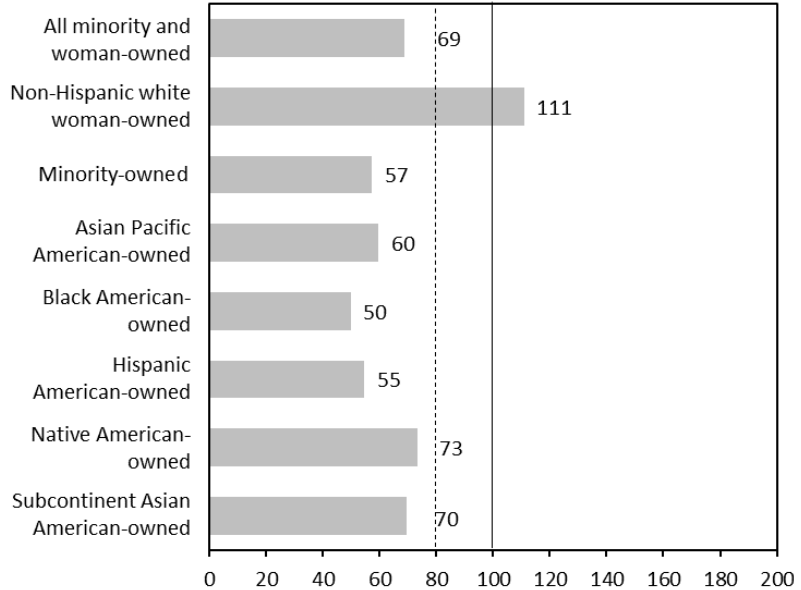
- All minority groups showed substantial disparities on all Caltrans and subrecipient local agency contracts considered together: Asian Pacific American-owned businesses (disparity index of 60), Black American-owned businesses (disparity index of 50), Hispanic American-

owned businesses (disparity index of 55), Native American-owned businesses (disparity index of 73), and Subcontinent Asian American-owned businesses (disparity index of 70).

- Non-Hispanic white woman-owned businesses did not exhibit a disparity on all Caltrans and subrecipient local agency contracts considered together (disparity index of 111).

Figure ES-9.
Overall disparity analysis results by racial/ethnic and gender group

Note:
For more detail, see Figure F-2 in Appendix F.
Source:
BBC Research & Consulting disparity analysis.



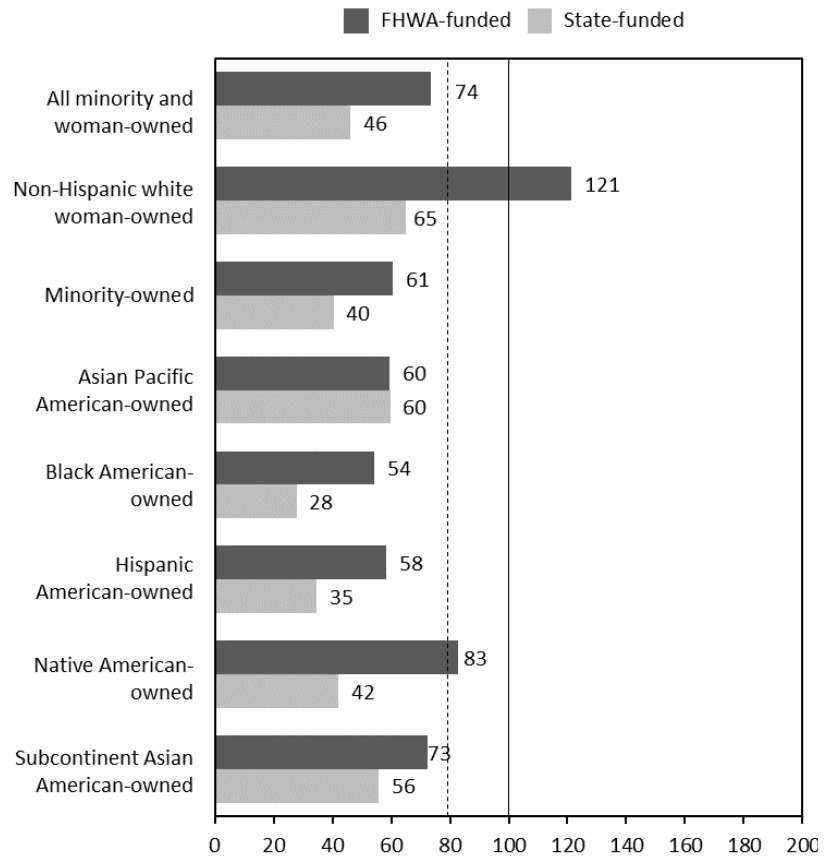
2. Funding source. As part of implementing the Federal DBE Program, Caltrans and subrecipient local agencies use DBE contract goals to award many FHWA-funded contracts and procurements. Thus, it is instructive to examine disparity analysis results separately for Caltrans’ FHWA-funded work and state-funded work, which Caltrans awarded without the use of any race- or gender-conscious measures due to Proposition 209. Figure ES-10 presents those results. As shown in Figure ES-10, minority- and woman-owned businesses considered together showed substantial disparities on both FHWA-funded contracts (disparity index of 74) and state-funded contracts (disparity index of 46). Disparity analysis results by individual racial/ethnic and gender groups indicate that:

- Most individual groups showed substantial disparities on FHWA-funded contracts and procurements. The exceptions were non-Hispanic white woman-owned businesses (disparity index of 121) and Native American-owned businesses (disparity index of 83). A disparity index of 83 indicates a disparity, but it does not reach the threshold of being considered substantial.
- All groups showed substantial disparities on state-funded contracts and procurements.

The results for FHWA-funded work suggest that Caltrans’ use of DBE contract goals is at least somewhat effective in increasing minority- and woman-owned business participation, particularly when compared with results for state-funded work.

Figure ES-10.
Disparity analysis
results for FHWA- and
state-funded work

Note:
 Numbers rounded to nearest tenth
 of 1 percent and thus may not sum
 exactly to totals.
 For more detail and results by
 group, see Figure F-11 and F-12 in
 Appendix F.
 Source:
 BBC Research & Consulting
 disparity analysis.



3. Contract role. Because minority- and woman-owned businesses are more likely to work as subcontractors than prime contractors, it is useful to examine disparity analysis results separately for relevant prime contracts and subcontracts. As shown in Figure ES-11, minority- and woman-owned businesses showed substantial disparities on prime contracts (disparity index of 48) but did not show disparities on subcontracts (disparity index of 115). Caltrans and subrecipient local agencies used DBE contract goals to award many contracts and procurements during the study period. DBE contract goals are designed to increase the participation of minority- and woman-owned businesses in subcontracts. Results for individual groups indicated that:

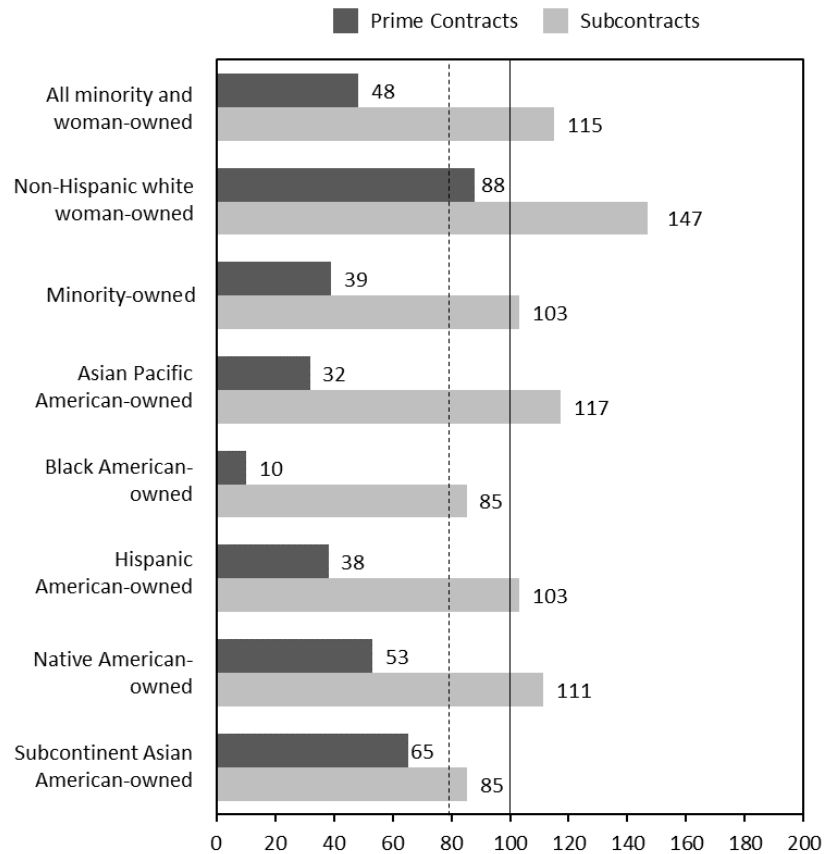
- All groups except for non-Hispanic white woman-owned businesses (disparity index of 88) showed substantial disparities on prime contracts. A disparity index of 88 indicates a disparity, but it does not reach the threshold of being considered substantial.
- Only two groups exhibited disparities on subcontracts: Black American-owned businesses (disparity index of 85) and Subcontinent Asian American-owned businesses (disparity index of 85). Neither disparity reached the threshold to be considered substantial.

The results for subcontracts suggest that Caltrans’ use of DBE contract goals is at least somewhat effective in increasing minority- and woman-owned business participation, particularly when compared with results for prime contracts.

Figure ES-11.
Disparity analysis
results for prime
contracts and
subcontracts

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

Source:
 BBC Research & Consulting
 disparity analysis.



4. Industry. BBC also examined disparity analysis results separately for construction and professional services work to assess whether contracting outcomes differ by industry. As shown in Figure ES-12, minority- and woman-owned businesses considered together exhibited substantial disparities on both construction (disparity index of 73) and professional services (disparity index of 50) contracts. Results for individual groups indicate that:

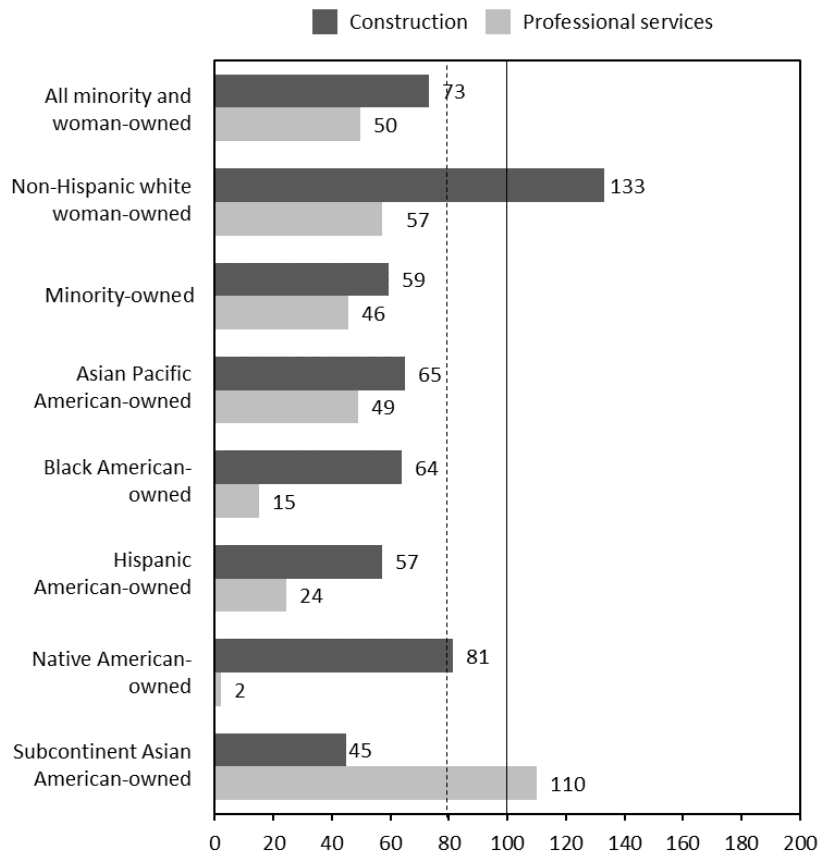
- All groups except non-Hispanic white woman-owned businesses (disparity index of 133) and Native American-owned businesses (disparity index of 81) showed substantial disparities on construction contracts. A disparity index of 81 indicates a disparity, but it does not reach the threshold to be considered substantial.
- All groups except Subcontinent Asian American-owned businesses (disparity index of 110) showed substantial disparities on professional services contracts.

E. Program Considerations

The disparity study provides substantial information Caltrans should examine as it considers potential refinements to its implementation of the Federal DBE Program and ways to further encourage the participation of minority- and woman-owned businesses in its contracts and procurements. BBC presents several key considerations below.

Figure ES-12.
Disparity analysis
results for
construction and
professional services
work

Note:
 Numbers rounded to nearest
 tenth of 1 percent and thus
 may not sum exactly to totals.
 For more detail, see Figures F-5
 and F-6 in Appendix F.
 Source:
 BBC Research & Consulting
 disparity analysis.



1. Overall DBE goal. As part of its implementation of the Federal DBE Program, Caltrans is required to set an overall goal for DBE participation in its FHWA-funded contracts and procurements, which is currently set at 17.6 percent. Results from the disparity study—particularly the availability analysis, analyses of marketplace conditions, and anecdotal evidence—can help Caltrans establish a new overall DBE goal for its FHWA-funded work. The availability analysis indicated that potential DBEs might be expected to receive 22.2 percent of relevant contract and procurement dollars, which the agency could consider as the *base figure* of its new overall DBE goal. In addition, the disparity study provides information Caltrans should review in considering whether an adjustment to its base figure is warranted, particularly information about the volume of work in which DBEs have participated in the past; barriers in California related to employment, self-employment, education, training, and unions; barriers in California related to financing, bonding, and insurance; and other relevant information.

2. DBE contract goals. Disparity analysis results indicated that, during the study period, all relevant business groups showed substantial disparities on state-funded contracts, which Caltrans and subrecipient local agencies awarded without the use of race- and gender-conscious measures due to Proposition 209. In addition, minority- and woman-owned businesses showed smaller disparities (although substantial disparities still existed for most groups) on FHWA-funded contracts, many of which Caltrans and subrecipient local agencies awarded with the use of DBE contract goals. Based on those results, disparity analysis results for other contract sets, and anecdotal evidence the study team collected, Caltrans should consider continuing its use of DBE contract goals in the future. Because the use of DBE contract goals is a race- and gender-

conscious measure, Caltrans must ensure that their use meets the *strict scrutiny standard* of constitutional review, including demonstrating a compelling government interest for the use of DBE contract goals and ensuring the use of DBE contract goals is narrowly tailored. In addition, Caltrans should consider:

- Making improvements to its good faith efforts (GFEs) policies to ensure they lead to more meaningful contact between prime contractors and potential subcontractors;
- Requiring prime contractors to meet DBE contract goals at the time of bid submission through the use of first-tier subcontractors to ensure prime contractors have responsibility for meeting DBE goal requirements; and
- Monitoring work types for potential overconcentration of minority- and woman-owned businesses to prevent undue burdens on non-DBEs working in those areas

3. Data collection. Caltrans collects subcontract data for first-tier subcontracts worth more than \$10,000 or 0.5 percent of total contract amounts but does so using paper copies of forms prime contractors submit to contract managers or resident engineers. Caltrans should consider implementing an electronic data collection system for subcontracting data and consider streamlining and simplifying the forms required for reporting subcontractor participation. A subcontract database would help Caltrans track data more efficiently, identify when contract managers or resident engineers have not submitted subcontract data, and reduce potential mistakes in interpreting hand-written forms. Caltrans should also consider collecting comprehensive data on all Local Assistance subcontracts, regardless of subcontractors' characteristics or whether they are certified as DBEs for *all* relevant prime contracts (e.g., state- and FHWA-funded contracts). Collecting subcontract data on all relevant contracts will help ensure Caltrans monitors the participation of minority- and woman-owned businesses accurately, identifies additional businesses that could become certified as DBEs, and identifies future subcontracting opportunities for minority- and woman-owned businesses.

4. Small business prime program. Disparity analysis results indicated substantial disparities for most relevant racial/ethnic and gender groups on prime contracts Caltrans and subrecipient local agencies awarded during the study period. Caltrans might consider reserving select small prime contracts for small business bidding to encourage the participation of minority- and woman-owned businesses as prime contractors. To ensure a small business prime program effectively encourages the participation of small businesses, including many minority- and woman-owned businesses, Caltrans should consider limiting bidding on eligible contracts to certified small businesses, regardless of whether larger business are able to submit lower bids.

5. Subcontracting minimums. Subcontracts often represent accessible opportunities for small businesses, including many minority- and woman-owned businesses, to become involved in an organization's contracting and procurement. To increase subcontract opportunities, Caltrans could consider implementing a program that requires prime contractors to subcontract a minimum amount of project work. For specific types of contracts where subcontracting opportunities might exist, Caltrans could set a minimum percentage of work to be subcontracted. Prime contractors would then have to meet or exceed those minimums in order for their bids or proposals to be considered responsive. If Caltrans were to implement such a

program, it should include GFEs provisions that would require prime contractors to document their efforts to identify and include potential subcontractors in their bids or proposals.

6. Subcontract commitments. Anecdotal evidence suggests subcontractors are often not used to the full extent of their subcontracts with prime contractors. Caltrans should consider tracking subcontractor participation electronically on an invoice-by-invoice basis to ensure prime contractors use subcontractors on projects to the full extent of their subcontracts. In addition to tracking subcontractor payments, establishing points of contact between subcontractors and Caltrans to address any underutilization or subcontractor substitutions may help ensure minority- and woman-owned businesses receive the work they were committed at the time of bid. Interview and public meeting participants made a number of additional suggestions to maximize work on subcontracts, including inviting subcontractors to contract negotiation meetings, notifying the entire team when contracts have been awarded, establishing stricter regulations around subcontract changes and subcontractor substitutions, and considering prime contractors' past use of subcontractors relative to subcontract commitments as a factor during bid evaluations.

7. Using the same businesses. The disparity study indicated that a substantial portion of the contract and procurement dollars Caltrans and subrecipient local agencies awarded to minority- and woman-owned businesses during the study period were largely concentrated with a relatively small number of businesses. Caltrans could consider using bid and contract language to encourage prime contractors to partner with subcontractors and suppliers with which they have never worked. For example, Caltrans might ask prime contractors to submit information about the efforts they made to identify and team with businesses with which they have not worked in the past as part of their bids. Caltrans could award evaluation points or price preferences based on the degree to which prime contractors partner with new subcontractors.

8. Working with Caltrans staff. Anecdotal evidence indicates that when businesses experience challenges during contract performance, finding the appropriate Caltrans employee to contact can be difficult. Many businesses report that they are given the "run around." That is, they are redirected to Caltrans staff who are either unwilling or incapable of resolving their issues. With payment issues, subcontractors are typically redirected to their prime contractors, even if the issues are because of lack of responses from their prime contractors. Caltrans should increase the visibility of appropriate points of contact for contract issues and District Small Business Liaisons for small business advocacy. Creating additional liaison positions, or expanding the responsibilities of existing staff, to resolve issues between prime contractors and subcontractors about payment, contract specifications, and other issues would empower many small businesses to perform Caltrans work more successfully.