

Disadvantaged Business Enterprise Availability,
Utilization, and Disparity Study
for the
San Francisco Municipal Transportation Agency
(SFMTA)



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Executive Summary (ES)

A. Purpose of the DBE Availability, Utilization, and Disparity Study

San Francisco Municipal Transportation Agency (SFMTA) is a recipient of U.S. Department of Transportation (USDOT) funds for transportation projects, including Federal Transit Administration (FTA) funds. As a recipient of FTA funds, SFMTA must implement the Federal Disadvantaged Business Enterprise (DBE) Program in accordance with 49 Code of Federal Regulations Part 26 (49 CFR Part 26 or Part 26) and applicable statutory and constitutional law. The USDOT also provides guidance to recipients to assist them in implementing the Federal DBE Program.

SFMTA adopted its current race-neutral Small Business Enterprise (SBE) Program for FTA-funded contracts¹ on August 1, 2006 to comply with the requirements of 49 CFR Part 26 and in response to the *Western States Paving Co. v. Washington State Dept. of Transportation*, 407 F.3d 983 (9th Cir. 2005) (*Western States*) decision.² The SBE Program includes construction, professional services, and goods and other contracts.

The purpose of this Disadvantaged Business Enterprise Utilization, Availability, and Disparity Study (the Study) is to determine if substantial disparities exist in SFMTA's utilization of DBEs in federally assisted contracts funded by the FTA and, if so, what is the appropriate level of participation by DBEs. SFMTA must set an overall DBE goal every three years for DBE participation in its FTA-funded contracts³, and examine whether the overall DBE goal can be attained solely through neutral measures or whether race- or gender-based measures are needed. The results of this Study are intended to assist SFMTA in implementing its DBE Program in the future.

SFMTA retained Rosales Business Partners LLC and Exstare Federal Services Group, LLC, in association with BBC Research & Consulting; JLM Management Group; Merriwether & Williams Insurance Services; and Chinese for Affirmative Action (collectively the Study Team), to conduct the Study.

¹ FTA-funded contracts in this Study exclude transit vehicle procurements.

² In *Western States*, the court 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. (*Id.* at 997; 1002-1003). In order to meet the "narrowly tailored" requirement of *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200, 227 (1995), 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. (*Id.* at 998.)

³ SFMTA's next triennial goal will cover Federal Fiscal Years (FFYs) 2017 through 2019.

B. Study Scope

The Study Scope examined whether there are disparities between utilization of minority-owned business enterprises (MBEs) and woman-owned business enterprises (WBEs),⁴ and what contract participation might be expected based on their availability for FTA-funded transportation contracts. Utilization and availability results reported for MBEs and WBEs combine (a) firms certified as DBEs, (b) potential DBEs⁵; and (c) minority- and woman-owned firms that may have graduated from the Federal DBE Program or are otherwise too large to be certified as DBEs.

The Study Scope encompasses SFMTA FTA-funded construction and professional services contracts awarded during FFYs 2009 through the third quarter (Q3) of FFY 2015⁶ (Study Period).

To perform the Study Scope, several analyses were conducted:

Market Area Analysis. The Study Team identified the relevant “geographic market area” in which SFMTA spent the substantial majority of its FTA-funded contracting dollars during the Study Period and where the substantial majority of interested contractors, subcontractors, and other goods and services suppliers that seek to do business with the SFMTA are located.⁷ The Study Team used SFMTA contracting data and its lists of interested firms to help determine the market areas. Different market areas were determined based on the transportation-related construction and professional services contract opportunities (including goods and supplies) awarded during the Study Period.

For construction, 74 percent of SFMTA’s FTA-funded contracts were awarded to prime contractors and subcontractors located in San Francisco, Alameda, San Mateo, Santa Clara and Los Angeles Counties. The majority of interested firms seeking opportunities with SFMTA are also located in these market areas. These counties were therefore

⁴ For purposes of this Study, WBEs refer to non-Hispanic white woman-owned businesses. See Section III.B, *infra*, for a further discussion of this term.

⁵ “Potential DBEs” means MBEs and WBEs that appear eligible for certification as DBEs based on the revenue requirements of 49 CFR Part 26 (regardless of actual certification). The Study Team did not count as potential DBEs those businesses that have been decertified or appear that they will soon graduate from the DBE Program.

⁶ October 1, 2008 through June 30, 2015.

⁷ The geographic market area is usually the counties surrounding a grant recipient but can also extend to additional areas where contractors and/or subcontractors can be found to do the types of projects being awarded by a grant recipient. (Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program, (“Tips for Goal-Setting”) <http://www.osdbu.dot.gov/dbeprogram/tips.cfm> at 3, sub-section D (“Explain How You Determined Your Local Market Area”).

identified as the relevant geographic market area for SFMTA’s transportation-related construction contracts.

For professional services, 92 percent of SFMTA FTA-funded contracts were awarded to prime contractors and subcontractors located in San Francisco, Alameda, San Mateo, and Santa Clara Counties. The substantial majority of interested firms seeking opportunities with SFMTA are also located in these market areas. These counties were therefore identified as the relevant geographic market area for SFMTA’s professional services contracts.

Availability Analysis. Relevant data relating to the availability of capable and qualified contractors was collected and evaluated consistent with evidence gathering efforts approved by the federal courts. The Study Team engaged in an extensive effort to identify all firms in the relevant geographic market areas that are “ready, willing and able” to participate in SFMTA’s FTA-funded contracts.

The Study Team used a custom census approach to estimate the availability of MBE/WBEs and majority-owned businesses for the transportation-related construction and professional services prime contracts and subcontracts that SFMTA awarded during the Study Period. Figure ES-1 presents overall dollar-weighted availability estimates by MBE/WBE group for those contracts.

Figure ES-1.
Overall dollar-weighted availability estimates by MBE/WBE group

Note:

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

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

Source:

Study Team availability analysis.

Race/ethnicity and gender	Utilization benchmark (availability %)
Black American-owned	1.8 %
Asian-Pacific American-owned	3.9
Subcontinent Asian American-owned	0.2
Hispanic American-owned	6.7
Native American-owned	0.0
Total MBE	12.6 %
WBE (white woman-owned)	5.0
Total MBE/WBE	17.6 %

Overall, MBE/WBE availability for SFMTA transportation contracts is 17.6 percent. Hispanic American-owned businesses (6.7%), non-Hispanic white woman-owned businesses (5.0%), and Asian Pacific American-owned businesses (3.9%) exhibited the highest availability percentages among all MBE/WBE groups.

Utilization Analysis. To determine SFMTA’s utilization of MBE and WBE firms, the Study Team ascertained the dollar values of FTA-funded transportation-related construction contracts and professional services contracts (including goods and other services) awarded by SFMTA during the Study Period, as well as the total dollar value of all FTA-funded

contracts awarded (including subcontracts). This task required in-depth review and analysis of SFMTA contract data, as well as a determination of the utilization of MBEs, WBEs, DBEs and majority-owned firms in FTA-funded contracts. The type of contract and the total dollar value of contracts awarded to MBE and WBE controlled businesses as prime contractors, subcontractors, suppliers and consultants were also determined.

As shown in Figure ES-2, MBE/WBEs received 18.3 percent of SFMTA’s transportation-related construction and professional services dollars during the Study Period. MBEs received 15.9 percent and WBEs received 2.5 percent of these contract dollars.

Figure ES-2.

MBE/WBE share of all prime contract and subcontract dollars by race/ethnicity/gender, FFYs 2009-Q3 2015

Note:

Numbers rounded to the nearest thousand dollars or tenth of one percent and may not add to totals due to rounding.

Source:

Study Team utilization analysis.

Race/ethnicity and gender	Total \$ in thousands	Total Percent
Black American-owned	\$ 36,668	2.0 %
Asian Pacific American-owned	137,947	7.6
Hispanic American-owned	100,259	5.6
Native American-owned	-	0.0
Subcontinent Asian American-owned	11,175	0.6
Total MBE	286,049	
WBE (white woman-owned)	44,931	2.5
Total MBE/WBE	330,979	18.3 %
Majority-owned	1,473,152	81.7
Total	\$ 1,804,131	100.0 %

Asian Pacific American-owned businesses (utilization of 7.6%) and Hispanic American-owned businesses (utilization of 5.6%) received the most contract dollars of any MBE/WBE group. Black American-owned businesses (utilization of 2.0%), Native American-owned businesses (utilization of 0.0%), Subcontinent Asian American-owned businesses (utilization of 0.6%), and non-Hispanic white woman-owned businesses (utilization of 2.5%) all received substantially less of SFMTA’s contract dollars. Results for DBEs by race, ethnicity, and gender are similar to the MBE/WBE results.

Disparity Analysis. The availability and utilization data was evaluated to identify substantial statistical disparities, if any, between actual MBE and WBE utilization on SFMTA contracts and MBE/WBE firms’ availability in the relevant geographic market areas.

Substantial disparities were found for non-Hispanic white woman-owned businesses, which only received 50 percent of the contract dollars that they were expected to receive based on their availability. Other disparity analysis results of note include: Black American-owned businesses showed a substantial disparity on SFMTA construction contracts overall, receiving only 64 percent of the contract dollars expected given their availability; and four MBE/WBE groups showed substantial disparities on small prime contracts: non-Hispanic white woman-owned businesses, Black American-owned

businesses, Subcontinent Asian American-owned businesses, and Native American-owned businesses.

Native American-owned businesses did not receive any contract dollars. This may be due, in part, to the relatively small number of firms owned by Native Americans. Hispanic American-owned businesses also showed a disparity, though it was not substantial, as explained further in Chapter V.

Marketplace Conditions and Anecdotal Evidence. The Study Team conducted quantitative and qualitative analyses of conditions in SFMTA's local marketplace to examine whether barriers exist in SFMTA's marketplace in the construction and engineering industries for minorities, women, and for MBE/WBEs, and whether such barriers affect the utilization and availability of MBE/WBEs for SFMTA contracting.

The Study Team's quantitative analyses show barriers in SFMTA's local marketplace for certain minority groups, women, and minority- and woman-owned businesses in the areas of entry and advancement, business ownership, access to capital, and success of businesses. Evidence presented in other relevant disparity studies that covered SFMTA's local marketplace support that conclusion and also demonstrate substantial disparities in the utilization of MBE/WBEs in transportation-related construction and professional services contracting.

The anecdotal evidence of discrimination was gathered through public hearings, surveys, and one-on-one interviews. Some of the recurring concerns that emerged from this body of information include:

- Complaints that SBE/DBEs are listed on successful bids and contracts but are not utilized after the contract award stage;
- Prime contractor accepting subcontractor bids for work, winning the contract, and subsequently reversing the decision post contract award or not honoring the scope of the accepted subcontractor's bid;
- SFMTA contracting for work, with SBE work starting late in the project; and
- Setting qualification criteria higher than necessary, such as insurance or bonding requirements.

Assessment of Procurement Policies, Procedures and Practices. The Study Team assessed SFMTA's procurement policies, procedures and practices to identify and determine the effectiveness of current race or gender-neutral techniques and whether discrimination or other barriers exist in SFMTA's implementation and enforcement of these policies, practices and processes. The Study Team's assessment is that SFMTA has done a good job, and its policies, procedures and practices did not create barriers to MBE/WBE/DBE participation during the Study Period.

C. Recommendations Overview

From the substantial data and anecdotal evidence gathered and assessed, the Study Team concluded that marketplace discrimination continues to be a significant barrier for minority- and woman-owned businesses seeking to do transportation-related business in California, including on SFMTA FTA-funded contracts.

The Study offers recommendations that SFMTA implement certain policies and program measures to help address this discrimination. These recommendations include a Woman-owned Business Enterprise element (to include firms owned by women of all races and ethnicities) in the SBE Program for construction, professional services and goods contracts, as well as an element designed to mitigate the discriminatory practices and their effects on Black American construction contractors. Both of these recommendations would require that the FTA approve a waiver of the DBE Program under Part 26. Implementation of a robust small business element within SFMTA's SBE Program that is focused on small construction and professional services contracts is also recommended.

Despite SFMTA's commendable outreach efforts, the Study Team recommends robust outreach to MBE/WBEs and DBEs. For example, the Study identified many businesses owned by minorities and women that are not DBE-certified. The Study Team recommends that SFMTA reach out to these businesses to inform them of certification eligibility requirements, encourage them to apply for DBE certification, and provide certification assistance. Moreover, discriminatory practices in the private sector concerning credit, bonding and financing also pose serious barriers to the full participation of MBE/WBEs in contracting opportunities, including at SFMTA. Due to these challenges, the Study Team also recommends outreach to lenders.

Several other measures are recommended; including policies to continue SBE set-asides (see Chapter IX).

Chapter I

Introduction

A. Organization of the Study

The Study Report is organized as follows:

- The Executive Summary above provides an overall summary of the Study.
- Chapter I introduces the organization of the Study.
- Chapter II discusses the geographic market areas for transportation-related construction and professional services contracting including goods and other services contracting.
- Chapter III presents an analysis of contractor availability in the SFMTA market areas.
- Chapter IV presents an analysis of SFMTA's utilization of minority and woman-owned firms, including firms owned by DBEs, in FTA-funded contracts during the Study Period.
- Chapter V presents the disparity analysis for transportation-related construction contracts and professional services contracts.
- Chapter VI discusses the anecdotal evidence collected during the Study and the stakeholder engagement process.
- Chapter VII discusses marketplace conditions concerning business formation and advancement, business ownership, success of businesses, and access to business credit.
- Chapter VIII presents an analysis of SFMTA's procurement policies, procedures and practices.
- Chapter IX presents the findings and recommendations.

Appendices A through H following the Study Report include:

- Appendix A: Availability Survey Instruments
- Appendix B: Disparity Tables
- Appendix C: June 10, 2015 Anecdotal Hearing Transcript
- Appendix D: Entry and Advancement in the Construction, Professional Services, and Other Services Industries
- Appendix E: Business Ownership in Transit-related Industries in SFMTA's Market Area
- Appendix F: Access to Capital for Business Formation and Success

- Appendix G: Success of Businesses in Transit-related Industries in SFMTA’s Market Area
- Appendix H: Study Team Bios

B. Overview of Federal DBE Program Requirements

The USDOT established the Disadvantaged Business Enterprise Program (Federal DBE Program) to ensure nondiscrimination in the award and administration of contracts by recipients of federal funds from the USDOT’s highway, transit, and airport financial assistance programs. The USDOT’s Office of the Secretary sets rules and regulations for the Federal DBE Program, and its regional offices supervise local implementation, ensuring that grant recipients comply with legal and regulatory requirements for the Federal DBE Program. SFMTA is a recipient of USDOT funds through the FTA.

As a result of the Supreme Court’s rulings in *Croson v. the City of Richmond*, 488 U.S. 469 (1989) and *Adarand Constructors, Inc., v. Peña, supra*, any federal program that uses race or ethnicity as a basis for making decisions is subject to “strict scrutiny,” which is the most rigorous standard of judicial review.

Nevertheless, courts have consistently found the regulations contained in Part 26 constitutional as written. Courts have also allowed local DBE Programs to use the race-conscious measures authorized by Part 26 where there was sufficient evidence of discrimination to support the use those measures. (*See, e.g., Northern Contracting, Inc. v. State of Illinois*, 473 F.3d 715 (7th Cir. 2007); *Western States, supra*; *Sherbrook Turf, Inc. v. Minnesota Dep’t of Transp.*, 345 F.3d 964 (8th Cir. 2003); *Adarand Constructors, Inc. v. Slater (Adarand VII)*, 228 F.3d 1147 (10th Cir. 2000)).

The Federal DBE Program also permits use of gender-conscious program measures. Although gender is typically reviewed under a less rigorous “intermediate” judicial standard, gender-based programs that have been reviewed under the “strict” judicial standard have also been found constitutional. (*Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 959-60 (10th Cir. 2003)).

Western States

As mentioned above, the SFMTA commissioned this Study in response to the *Western States* decision, issued on May 9, 2005, and the guidance from the USDOT subsequent to that decision. The *Western States* court upheld DOT’s DBE regulations on their face; however, the court struck down the Washington Department of Transportation’s (WSDOT) DBE program as unconstitutional. The court held that WSDOT’s DBE program was not narrowly tailored because it was not based on evidence of discrimination in the Washington State marketplace.

The court also suggested that a remedial program, such as the DBE program, is only narrowly tailored if it is limited to those minority groups that have actually suffered discrimination.

Specifically, the court noted that WSDOT had not conducted adequate statistical studies to establish the existence of discrimination in the highway contracting industry. Further, the court found that WSDOT's calculation of the capacity of DBEs to do work was flawed because it failed to take into account the effects of past race-conscious programs on current DBE participation. According to the court, the disparity between DBE participation on contracts with and without race-conscious goals did not provide any evidence of on-going discrimination⁸.

Finally, the court noted that WSDOT did not present any anecdotal evidence of discrimination. Since this decision was issued by the U.S. Court of Appeals for the Ninth Circuit, it applies to all states comprising the Ninth Circuit, including California.

DOT Guidance in Response to *Western States*

On March 23, 2006, FTA published USDOT's guidance concerning the federal DBE program that applies to grant recipients in states within the Ninth Circuit. This guidance provides that if a recipient does not currently have sufficient evidence of discrimination or its effects, the recipient must meet its annual overall DBE goal solely through race-neutral measures. DOT's guidance also requested that recipients submit, along with their goal, a description of any plans to conduct a study to determine the existence of discrimination or its effects in the marketplace. Since SFMTA now has substantial experience with race-neutral contracting through its SBE Program, SFMTA provided the Study Team with exclusively race-neutral contracting in the relevant Study Period.

⁸ As used in this discussion, the terms "race-conscious" and "race-neutral" includes both race and gender.

Chapter II

Market Area Determination

Recipients of USDOT funds are required to implement the Federal DBE Program based on the relative availability of DBEs in the agency’s relevant geographic market area. The USDOT’s guidance implementing Part 26’s “Tips for Goal-Setting” explains that the relevant market area is ascertained by examining the area in which the agency spends the substantial majority of its federal contracting dollars and where the substantial majority of interested contractors and subcontractors that seek to do business with the agency are located. (Tips for Goal-Setting, *supra*, at 3, sub-section D). The Study Team used SFMTA contracting data to help determine the “relevant geographic market area” for the Study.

- The Study Team labeled each SFMTA contract in the Study as either construction or professional services based on the how SFMTA identified the contract. Commodities and other services were included as construction or professional services contracts based on the type of work or goods supplied⁹;
- For each contract category (i.e., construction and professional services), the Study Team summed the contract dollars going to each prime contractor and subcontractor;
- For each prime contractor and subcontractor, the Study Team determined where their most “local” to SFMTA office was located, with location preference for multi-office establishments in the following order:
 1. City and County of San Francisco;
 2. Other Bay Area counties;
 3. Other California counties; and
 4. Locations outside of California;
- The Study Team then summed the dollars across businesses for each contract category (i.e., construction and professional services) for each county to determine the percentage of contract dollars spent by county of business location.

Figure II-1 provides the results of the relevant geographic market area analysis for SFMTA.

⁹ SFMTA data indicate that the larger FTA-funded commodities (over \$100 thousand) purchases during the Study Period were components of FTA-funded construction and professional services contracts. The Study Team excluded several individual FTA-funded commodities purchases, which were all under \$100 thousand, because the sample sizes would not have produced meaningful information to conduct the disparity analyses. (See discussion in Chapter IV.)

Figure II-1.
Percent of SFMTA spend by
location of contractor and type
of work

Note:
 Includes SFMTA construction
 and professional services
 contracts let between FFY 2009
 and Q3 FFY 2015.

Totals may not sum to 100.0
 percent due to rounding.

Source: Study Team analysis of
 SFMTA and other information,
 2015.

County	Construction	Professional Services
San Francisco	16.2 %	76.4 %
Alameda	13.3	14.1
San Mateo	4.3	0.7
Santa Clara	1.2	1.0
Los Angeles	39.5	0.1
Other California	7.2	3.9
Outside of California	18.4	3.8
Total	100.0 %	100.0 %

For construction, 74 percent of SFMTA’s FTA-funded contracts were awarded to prime contractors and subcontractors located in San Francisco, Alameda, San Mateo, Santa Clara and Los Angeles Counties. The majority of interested firms seeking opportunities with SFMTA are also located in these market areas. These counties were therefore identified as the relevant geographic market area for SFMTA’s transportation-related construction contracts.

For professional services, 92 percent of SFMTA FTA-funded contracts were awarded to prime contractors and subcontractors located in San Francisco, Alameda, San Mateo, and Santa Clara Counties. The substantial majority of interested firms seeking opportunities with SFMTA are also located in these market areas. These counties were therefore identified as the relevant geographic market area for SFMTA’s professional services contracts.

The Study Team’s analyses, including the availability analysis and quantitative analyses of marketplace conditions, focused on those relevant geographic market areas.

Chapter III

Availability Analysis

The Study Team analyzed the availability of minority- and woman-owned business enterprises (MBE/WBEs) that are ready, willing, and able to perform on SFMTA prime contracts, subcontracts, and commodities contracts. Section III describes the Study Team's availability analysis in six parts:

- A. Purpose of the availability analysis;
- B. Definitions of MBEs, WBEs, certified DBEs, potential DBEs, and majority-owned businesses;
- C. Information collected about potentially available businesses;
- D. Businesses included in the availability database;
- E. MBE/WBE availability calculations on a contract-by-contract basis; and
- F. Availability results.

A. Purpose of the Availability Analysis

The Study Team examined the availability of MBE/WBEs for SFMTA prime contracts and subcontracts primarily to:

Use as inputs in the disparity analysis; and

Help develop a potential base figure for SFMTA's overall DBE goal.

Inputs in the disparity analysis. The Study Team's analysis of the availability of MBE/WBEs for SFMTA work provides a benchmark against which to compare MBE/WBE utilization in the disparity analysis. In the disparity analysis, the Study Team compared the percentage of SFMTA contract dollars that went to MBE/WBEs during the Study Period (i.e., utilization) to the percentage of dollars that might be expected to go to those businesses based on their availability for specific types and sizes of SFMTA contracts (i.e., availability). Comparisons between utilization and availability allowed the Study Team to determine whether any MBE/WBE groups were underutilized during the Study Period relative to their availability for SFMTA work.

Potential base figure for SFMTA's overall DBE goal. SFMTA implements the Federal DBE Program, and, as part of the program, it must establish an overall goal for DBE participation in its FTA-funded contracts.

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

To interpret the availability analysis, as well as other analyses presented in the Study, it is useful to understand the differences between all MBE/WBEs and MBE/WBEs that are

DBE-certified or could be DBE-certified. In addition, it is important to understand how the Study Team treated businesses owned by minority women.

MBE/WBEs. The definitions that the Study Team used for MBE/WBE groups in the disparity study were consistent with the definitions specified in 49 CFR Part 26. The Study Team examined utilization, availability, and disparities separately for Black American-, Asian Pacific American-, Subcontinent Asian American-, Hispanic American-, Native American-, and non-Hispanic white woman-owned businesses.

All MBE/WBEs, not only certified DBEs. The Study Team analyzed the possibility that race- or gender-based discrimination affected the participation of MBE/WBEs in SFMTA work through analyses of availability and utilization based on the race/ethnicity and gender of business ownership and not on DBE certification status. Therefore, the Study Team counted businesses as minority- or woman-owned regardless of whether they were, or could be, certified as DBEs through the California Unified Certification Program (CUCP). Analyzing the availability and utilization of MBE/WBEs regardless of DBE certification allows one to assess whether there are disparities affecting all MBE/WBEs and not just certified businesses. Businesses may be discriminated against because of the race or gender of their owners regardless of whether they have successfully applied for certification.

Moreover, the Study Team's analyses of whether MBE/WBEs face disadvantages include the most successful, highest-revenue MBE/WBEs, not just those firms under the revenue ceiling needed for DBE certification. A disparity study that focuses only on MBE/WBEs that are, or could be, DBE-certified would improperly compare outcomes for "economically disadvantaged" businesses with all other businesses, including both non-Hispanic white male-owned businesses and relatively successful MBE/WBEs.¹⁰ Limiting the analyses to a group of businesses that only includes low-revenue companies would have inappropriately made it more likely for the Study Team to observe disparities for MBE/WBE groups.¹¹ The courts that have reviewed disparity studies have accepted analyses based on race/ethnicity and gender of ownership rather than on DBE certification status. (*See Northern Contracting, Inc. vs. State of Illinois, supra*, 473 F.3d at 723).

¹⁰ In addition, 49 CFR Part 26 allows certification of white male-owned businesses as DBEs. Thus, disparity analyses based on certified DBEs might not purely be an analysis of disparities based on race/ethnicity and gender.

¹¹ An analogous situation concerns analysis of possible wage discrimination. A disparity analysis that would compare wages of minority employees to wages of all employees should include both low- and high-wage minorities in the statistics for minority employees. If the analysis removed high-wage minorities from the analyses, any comparison of wages between minorities and non-minorities would more likely show disparities in wage levels.

Certified DBEs. Certified DBEs are businesses that are certified as such through the CUCP, which means that they are businesses that:

- Are owned and controlled by one or more individuals who are presumed to be both socially and economically disadvantaged according to 49 CFR Part 26¹²; and
- Meet the gross revenue and personal net worth requirements described in 49 CFR Part 26.

Because implementation of the Federal DBE Program requires SFMTA to track DBE utilization, the Study Team reports utilization results for all MBE/WBEs and separately for those MBE/WBEs that are DBE-certified. However, the Study Team does not report availability or disparity analysis results separately for certified DBEs.

Businesses owned by minority women. Businesses owned by minority women presented a data coding challenge in the availability and utilization analyses. The Study Team considered four options for coding businesses owned by minority women:

1. Coding those businesses as both minority-owned and woman-owned;
2. Creating unique groups of minority woman-owned businesses;
3. Grouping minority woman-owned businesses with all other woman-owned businesses; and
4. Grouping minority woman-owned businesses with their corresponding minority groups.

The Study Team chose not to code businesses as both woman-owned and minority-owned to avoid double-counting certain businesses when reporting total MBE/WBE utilization and availability. Creating groups of minority woman-owned businesses that were distinct from minority male-owned businesses (e.g., Black American woman-owned businesses versus Black American male-owned businesses) was also unworkable because some minority groups had utilization and availability so low that further disaggregation by gender made it even more difficult to interpret the results.

After rejecting the first two options, the Study Team then considered whether to group minority woman-owned businesses with all other woman-owned businesses or with their corresponding minority groups. The Study Team chose the latter (e.g., grouping Black American woman-owned businesses with all other Black American-owned businesses).

¹² The Federal DBE Program specifies that Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, Subcontinent Asian Americans, women of any race or ethnicity, and any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration are presumed to be disadvantaged.

Thus, “WBEs” in this report refers to non-Hispanic white woman-owned businesses. Evidence of discrimination against white woman-owned firms should be considered evidence of discrimination against women of any race or gender. (See discussion in *Associated General Contractors of America v. Caltrans*, 713 F.3d 1187, 1198 (9th Cir. 2013)).

Majority-owned businesses. Majority-owned businesses are businesses that are not owned by minorities or women (i.e., businesses owned by non-Hispanic white males or males of a minority group that is not recognized as disadvantaged in 49 CFR Part 26). In the utilization and availability analyses, the Study Team coded each business as minority, woman-, or majority-owned. Majority-owned businesses included any non-Hispanic white male-owned businesses that were certified as DBEs.¹³

All other businesses. The Study Team categorized all businesses that were not “potential DBEs” as “all other businesses” in the base figure analysis. All other businesses included all MBE/WBEs that were not currently DBE-certified and that:

- Had graduated from the Federal DBE Program;
- Had been denied DBE certification; or
- Appeared to be too large for DBE certification based on revenue size standards.

All other businesses also included majority-owned businesses that were not DBE-certified.

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¹³ There were no DBE-certified white male-owned businesses that were utilized on or potentially available for SFMTA transportation contracts.

C. Information Collected about Potentially Available Businesses

The Study Team’s availability analysis focused on specific areas of work (i.e., subindustries) related to the types of transportation-related construction and professional services contracts (e.g., engineering contracts) that SFMTA awarded during the Study Period. The Study Team identified specific subindustries for inclusion in the availability analysis and identified the geographic market areas in which SFMTA awarded most of the corresponding contract dollars (i.e., the relevant geographic market area). The Study Team considered San Francisco, Alameda, San Mateo, Santa Clara, and Los Angeles Counties as the relevant geographic market area for the construction subindustry for the study. The Study Team considered San Francisco, Alameda, San Mateo, Santa Clara, and Counties as the relevant geographic market area for the professional services subindustry for the study.¹⁴ The Study Team then developed a database of potentially available businesses through interviews with local business establishments within relevant subindustries. That method of examining availability is sometimes referred to as a “custom census” and has been accepted by the federal courts.¹⁵ Figure III-1 summarizes characteristics of the Study Team’s custom census approach to examining availability.

**Figure III-1.
Summary of the strengths of the
Study Team’s “custom census”
approach**

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

For example, the Study Team’s analysis included discussions with businesses about interest in state and local government work, contract role, and geographic locations of their work — items not included in some of the previous court-reviewed custom census approaches. The Study Team also analyzed the sizes of contracts and subcontracts on which businesses have bid on or performed in the past.

Overview of availability interviews. The Study Team conducted telephone interviews and web-based surveys with business owners and managers to identify businesses that are potentially available for SFMTA transportation prime contracts and subcontracts.¹⁶ The Study Team began the interview process by collecting information about business establishments from Dun & Bradstreet (D&B) Marketplace listings, SFMTA, and San Francisco City and County vendor lists.¹⁷ The Study Team collected information about all

¹⁴ Additional information about defining the market area is presented in Section II of the report.

¹⁵ *Northern Contracting, Inc. v. State of Illinois, supra*, 473 F.3d at 723.

¹⁶ The Study Team offered business representatives the option of completing interviews via fax or e-mail if they preferred not to complete interviews via telephone.

¹⁷ D&B Marketplace is accepted as the most comprehensive and complete source of business listings in the nation. (*Id.* at 718).

business establishments listed under 8-digit work specialization codes (as developed by D&B) that were most related to the transportation contracts that SFMTA awarded during the Study Period. The Study Team attempted to contact more than 12,000 business establishments related to those work specialization codes.

Information collected in availability interviews. The Study Team conducted telephone interviews and web-based surveys with the owners or managers of the identified business establishments. Interview questions covered many topics about each organization, including:

- Status as a private business (as opposed to a public agency or not-for-profit organization);
- Status as a subsidiary or branch of another company;
- Primary lines of work;
- Size of the business;
- Qualifications and interest in performing transportation-related work for SFMTA and other state and local government agencies;
- Qualifications and interest in performing transportation-related work as a prime contractor or as a subcontractor;
- Largest prime contract or subcontract bid on or performed in the previous five years;
- Year of establishment; and
- Race/ethnicity and gender of ownership.

Appendix A provides details about specific interview questions and an example of the availability interview instrument.

Considering businesses as potentially available. The Study Team asked business owners and managers several questions concerning the types of work that their companies performed; their past bidding histories; and their qualifications and interest in working on contracts for SFMTA and other state and local government agencies, among other topics. The Study Team considered businesses to be potentially available for SFMTA transportation prime contracts or subcontracts if they reported possessing *all* of the following characteristics:

- Being a private business (as opposed to a nonprofit organization);
- Having performed work relevant to SFMTA transportation contracting;
- Having bid on or performed transportation-related public or private sector prime contracts or subcontracts in California in the past five years; and

- Being qualified for and interested in work for SFMTA and other state or local governments.¹⁸

The Study Team also considered the following information to determine if businesses were potentially available for specific contracts that SFMTA awarded during the Study Period:

- The largest contract bid on or performed in the past; and
- The year the business was established.

D. Businesses Included in the Availability Database

After conducting availability interviews with businesses in the relevant geographic market area, the Study Team developed a database of information about businesses that are potentially available for SFMTA transportation contracting work. The Study Team used the availability database to produce availability benchmarks to:

- Determine whether there were any disparities in SFMTA's utilization of MBE/WBEs during the Study Period; and
- Help develop a potential base figure for SFMTA's overall DBE goal.

Data from the availability interviews allowed the Study Team to develop a representative selection of businesses that are qualified and interested in SFMTA work, but it should not be considered an exhaustive list of every business that could potentially participate in SFMTA transportation work.

Figure III-2 presents the number of businesses that the Study Team included in the availability database for each racial/ethnic and gender group. The information in Figure III-2 solely reflects a simple count of firms with no analysis of availability for specific SFMTA contracts. Thus, it represents only a first step toward analyzing the availability of MBE/WBEs for SFMTA work.

¹⁸ That information was gathered separately for prime contract and subcontract work.

**Figure III-2.
Number of businesses included
in the availability database**

Note:

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

Source:

Study Team availability analysis.

Race/ethnicity and gender	Number of firms	Percent of firms
Black American-owned	62	5.7 %
Asian-Pacific American-owned	87	8.0
Subcontinent Asian American-owned	18	1.6
Hispanic American-owned	122	11.2
Native American-owned	6	0.5
Total MBE	295	27.0 %
WBE (white woman-owned)	129	11.8
Total MBE/WBE	424	38.8 %
Total majority-owned firms	669	61.2
Total firms	1,093	100.0 %

As shown in Figure III-2, the Study Team considered 1,093 businesses to be potentially available for specific transportation contracts that SFMTA awarded during the Study Period. Of those businesses, 38.8 percent were MBEs or WBEs.

E. MBE/WBE Availability Calculations on a Contract-by-Contract Basis

The Study Team analyzed information from the availability database to develop dollar-weighted availability estimates for use in the disparity analysis and in helping SFMTA set its overall DBE goal. Dollar-weighted availability estimates represent the percentage of SFMTA transportation contracting dollars that MBE/WBEs would be expected to receive based on their availability for specific types and sizes of SFMTA transportation-related construction and professional services prime contracts and subcontracts. The Study Team’s approach to calculating availability was a bottom up, contract-by-contract “matching” approach.

Steps to calculating availability. Only a proportion of the businesses in the availability database were considered potentially available for any given SFMTA construction or professional services prime contract or subcontract (referred to collectively as “contract elements”). The Study Team first examined the characteristics of each specific contract element, including type of work, contract size, and contract date. The Study Team then identified businesses in the availability database that perform work of that type, of that size, in that role (i.e., prime contractor or subcontractor), and that were in business in the year that the contract element was awarded.

The Study Team identified the specific characteristics of each of the 656 SFMTA prime contracts and subcontracts/supplier contracts that the Study Team examined as part of the Study and then took the following steps to calculate availability for each contract element:

1. For each contract element, the Study Team identified businesses in the availability database that reported that they:

- Are qualified and interested in performing transportation-related work in that particular role for that specific type of work for SFMTA or other local public agencies;
 - Have bid on or performed work of that size; and
 - Were in business in the year that SFMTA awarded the contract.
2. The Study Team then counted the number of MBEs (by race/ethnicity), WBEs, and majority-owned businesses among all businesses in the availability database that met the criteria specified in Step 1.
 3. The Study Team translated the numeric availability of businesses for the contract element into percentage availability.

The Study Team repeated those steps for each contract element that the Study Team examined as part of the Study. The Study Team multiplied the percentage availability for each contract element by the dollars associated with the contract element, added results across all contract elements, and divided by the total dollars for all contract elements. The result was a dollar-weighted estimate of overall availability of MBE/WBEs and estimates of availability for each MBE/WBE group. Figure III-3 provides an example of how the Study Team calculated availability for a specific subcontract associated with a construction prime contract that SFMTA awarded during the Study Period.

**Figure III-3.
Example of an availability calculation for an SFMTA subcontract**

On a contract that SFMTA awarded in 2012, the prime contractor awarded a subcontract worth \$263,000 for heavy construction work. To determine the overall availability of MBE/WBEs for that subcontract, the Study Team identified businesses in the availability database that:

- a. Were in business in 2012;
- b. Indicated that they performed heavy construction work;
- c. Reported bidding on work of similar or greater size in the past; and
- d. Reported qualifications and interest in working as a subcontractor on SFMTA and other local public agency transportation projects.

The Study Team found 90 businesses in the availability database that met those criteria. Of those businesses, 31 were MBEs or WBEs. Thus, MBE/WBE availability for the subcontract was 34.4 percent (i.e., $31/90 \times 100 = 34.4$).

Improvements on a simple “head count” of businesses. The Study Team used a custom census approach to calculating MBE/WBE availability for SFMTA work rather than using a simple “head count” of MBE/WBEs (i.e., simply calculating the percentage of all transportation contracting businesses in the relevant geographic market area that are minority- or woman-owned). Using a custom census approach typically results in lower availability estimates for MBEs and WBEs than a headcount approach due in large part to the Study Team’s consideration of “relative capacity” in measuring availability and to dollar-weighting availability results. MBE/WBEs tend to be smaller than other businesses, and the largest contracts that they have bid on or performed also tend to be

smaller than those of other businesses. Therefore, MBE/WBEs are less likely to be identified as available for the largest prime contracts and subcontracts.

The Study Team’s approach accounts for type of work. USDOT suggests calculating availability based on businesses’ abilities to perform specific types of work. USDOT gives the following example in “Tips for Goal-Setting”:

If 90 percent of an agency’s contracting dollars is spent on heavy construction and 10 percent on trucking, the agency would calculate the percentage of heavy construction businesses that are MBEs or WBEs and the percentage of trucking businesses that are MBEs or WBEs, and weight the first figure by 90 percent and the second figure by 10 percent when calculating overall MBE/WBE availability.¹⁹

The Study Team took type of work into account by examining 39 different subindustries related to construction and professional services as part of estimating availability for SFMTA work.

The Study Team’s approach accounts for qualifications and interest in transportation-related prime contract and subcontract work. The Study Team collected information on whether businesses are qualified and interested in working as prime contractors, subcontractors/suppliers, or both on SFMTA transportation work, in addition to the consideration of several other factors related to SFMTA prime contracts and subcontracts (e.g., contract types and sizes):

Only businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts;

Only businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts; and

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

The Study Team’s approach accounts for the size of prime contracts and subcontracts. The Study Team considered the size — in terms of dollar value — of the prime contracts and subcontracts that a business bid on or received in the previous five years (i.e., relative capacity) when determining whether to count that business as available for a particular contract element. When counting available businesses for a particular

¹⁹ Tips for Goal-Setting, *supra*, at 4, sub-section F.

prime contract or subcontract, the Study Team considered whether businesses had previously bid on or received at least one contract of an equivalent or greater dollar value.

The Study Team’s approach is consistent with many recent, key court decisions that have found relative capacity measures to be important to measuring availability (e.g., *Western States, supra*; *Rothe Development Corp. v. U.S. Department of Defense*²⁰; and see also discussion in *Associated General Contractors of America v. Caltrans*²¹).

The Study Team’s approach generates dollar-weighted results. The Study Team examined availability on a contract-by-contract basis and then dollar-weighted the results for different sets of contract elements. Thus, the results of relatively large contract elements contributed more to overall availability estimates than those of relatively small contract elements. The Study Team’s approach is consistent with USDOT’s “Tips for Goal-Setting” which suggests a dollar-weighted approach to calculating availability.

F. Availability Results

The Study Team used a custom census approach to estimate the availability of MBE/WBEs and majority-owned businesses for the 656 transportation-related construction and professional services, prime contracts and subcontracts that SFMTA awarded during the Study Period. Figure III-4 presents overall dollar-weighted availability estimates by MBE/WBE group for those contracts.

Figure III-4.
Overall dollar-weighted availability estimates by MBE/WBE group

Note:

Numbers rounded to nearest tenth of 1 percent.

Numbers may not add to totals due to rounding.

For more detail and results by group, see

Figure B-2 in Appendix B.

Source: Study Team availability analysis

Appendix B contains availability analysis results for different types of contracts.

Race/ethnicity and gender	Utilization benchmark (availability %)
Black American-owned	1.8 %
Asian-Pacific American-owned	3.9
Subcontinent Asian American-owned	0.2
Hispanic American-owned	6.7
Native American-owned	0.0
Total MBE	12.6 %
WBE (white woman-owned)	5.0
Total MBE/WBE	17.6 %

- Overall, MBE/WBE availability for SFMTA transportation contracts is 17.6 percent. Hispanic American-owned businesses (6.7%), non-Hispanic white woman-owned businesses (5.0%), and Asian Pacific American-owned businesses (3.9%) exhibited the highest availability percentages among all MBE/WBE groups. Note that availability estimates varied when the Study Team examined different subsets of the transportation contracts.

²⁰ *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008).

²¹ *Associated General Contractors of America v. Caltrans, supra*, 713 F.3d at 1196.

Chapter IV

Utilization Analysis

The utilization analysis presents information about the participation of MBEs, WBEs, DBEs, and majority-owned businesses²² on FTA-funded transportation-related construction and professional services contracts (including goods and other services) that SFMTA awarded during the Study Period. As explained above in Chapter II, commodities and other services were included as construction or professional services contracts based on the type of work or goods supplied.

Chapter IV is organized in seven parts:

- A. Overview of the utilization analysis;
- B. Overall MBE/WBE and DBE utilization;
- C. MBE/WBE and DBE utilization on construction contracts;
- D. MBE/WBE and DBE utilization on professional services contracts;
- E. MBE/WBE and DBE utilization as prime contractors;
- F. MBE/WBE and DBE utilization as subcontractors and suppliers; and
- G. MBE/WBE and DBE utilization as prime contractors on small construction and professional services contracts.

A. Overview of the Utilization Analysis

The Study Team collected and examined SFMTA contract data that provided consistent information about prime contractors and subcontractors.²³ These data sources were:

- Prime contract data
- Subcontract data; and
- Commodities purchases (i.e., goods/supplies) data.

The Study Team analyzed FTA-funded construction and professional services contracts that SFMTA awarded during the October 1, 2008 through June 30, 2015 Study Period. The Study Team counted DBE-certified and non DBE-certified minority- and woman-owned businesses in calculating MBE/WBE utilization, and also calculated the utilization of non-Hispanic white male-owned businesses. To determine SFMTA's utilization of

²² Non-DBE white male-owned businesses.

²³ SFMTA DBE utilization reports alone were not sufficient for this analysis, as information about non-DBE subcontractors is not recorded in those reports.

MBE and WBE firms, the Study Team ascertained the individual dollar values of FTA-funded contracts (including subcontracts and goods/supplies) awarded by SFMTA during the Study Period, as well as total dollar value of all FTA-funded contracts awarded.

The Study Team excluded certain commodities under \$100 thousand and other subindustries for which sample sizes would not have produced meaningful information to conduct the disparity analyses. Thus the percentage participation reported in this Study for DBE-certified firms is different than the DBE utilization that SFMTA reports to FTA.

Definition of utilization. The Study Team measured MBE/WBE participation based on “utilization” -- the percentage of prime contract and subcontract dollars that SFMTA awarded to MBE/WBEs during the Study Period.²⁴ Figure IV-1 presents more information about how utilization is defined and measured in this Study.

How SFMTA is required to report utilization. 49 CFR Part 26 requires SFMTA to report DBE utilization on its federally funded transportation contracts to the FTA. SFMTA’s utilization reports include only participation achievements for MBE/WBEs that are DBE-certified. This utilization is based on the number and dollar value of contracts and subcontracts awarded or committed, and payments made, to DBEs in a prescribed reporting period, expressed as a percentage of total dollars to DBEs. SFMTA is required to submit semi-annual reports of DBE utilization to the FTA on June 1 and December 1 of each year.

Study Team’s approach to analyzing utilization of MBE/WBEs. The Study Team’s utilization analyses, however, includes all MBEs and WBEs (including DBEs) that participated on SFMTA’s FTA-funded contracts. Analyzing utilization in this manner, regardless of a firm’s DBE certification status, allows one to assess whether there are disparities affecting all MBE/WBEs, not only DBE-certified businesses.

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

“Utilization” means the percentage of FTA-funded prime contract and subcontract dollars that SFMTA awarded to MBE/ WBEs during the Study Period. The Study Team measured MBE/WBE utilization as a percentage of total FTA-funded prime contract and subcontract dollars. For example, if 5 percent of FTA-funded prime contract and subcontract dollars went to MBEs during the Study Period, MBE utilization would be 5 percent. Utilization is also reported separately by race, ethnicity and gender.

While MBE/WBE utilization reports are useful, the information is instructive when compared with the utilization that might be expected based on the availability of MBE/WBEs in the market areas for SFMTA contracting opportunities. Such comparisons are presented as part of the “disparity analysis” in Chapter V.

²⁴ Prime contractors, not SFMTA, award subcontracts to subcontractors. To simplify the discussion, SFMTA’s “award” of contract elements is used here and throughout this Study to refer to all tiers of contractors on a contract.

The Study Team reports utilization for all MBE/WBEs, and separately for MBEs and WBEs that were DBE-certified during the Study Period. The utilization analyses include utilization of MBE/WBEs that are no longer DBE-certified (i.e., graduated or decertified), and the utilization of MBE/WBEs that have never been DBE-certified.

B. Overall MBE/WBE Utilization

As shown in Figure IV-2, overall MBE/WBEs received 18.3 percent of SFMTA’s construction, professional services, and goods and other services dollars during the Study Period. MBEs received 15.9 percent and WBEs received 2.5 percent of these contract dollars. MBE/WBEs that were DBE-certified received 13.5 percent of all construction, professional services, and goods and other services dollars during the Study Period.

**Figure IV-2.
MBE/WBE and DBE share of all prime contract and subcontract dollars by
race/ethnicity/gender, FFYs 2009-Q3 2015**

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 36,668	2.0 %
Asian Pacific American-owned	137,947	7.6
Hispanic American-owned	100,259	5.6
Native American-owned	-	0.0
Subcontinent Asian American-owned	11,175	0.6
WBE (white woman-owned)	<u>44,931</u>	<u>2.5</u>
Total MBE/WBE	330,980	18.3 %
Majority-owned	<u>1,473,151</u>	<u>81.7</u>
Total	\$ 1,804,131	100.0 %
DBEs		
Black American-owned	\$ 26,409	1.5 %
Asian Pacific American-owned	119,969	6.6
Hispanic American-owned	70,763	3.9
Native American-owned	-	0.0
Subcontinent Asian American-owned	5,086	0.3
Unknown minority DBE	-	0.0
WBE (white woman-owned)	22,010	1.2
White male-owned DBE	<u>-</u>	<u>0.0</u>
Total DBE	\$ 244,237	13.5 %
Non-DBE	<u>1,559,894</u>	<u>86.5</u>
Total	\$ 1,804,131	100.0 %

Source: Study Team utilization analysis.

Note: Numbers are rounded to the nearest thousand dollars or tenth of one percent.

Figure IV-2 also presents utilization of each MBE/WBE group that is presumed to be disadvantaged in 49 CFR Part 26. As shown in Figure IV-2, utilization of Asian Pacific

American (7.6%) and Hispanic American-owned businesses (5.6%) on all contracts was higher than utilization of other MBE/WBE groups on all contracts during the Study Period. Subcontinent Asian American (0.6%), Black American (2.0%) and Woman-owned businesses (2.5%) were utilized less than other MBE/WBE groups on all construction, professional services, and goods and other services contracts. Native American-owned businesses were not utilized on these contracts.

C. MBE/WBE and DBE Utilization on Construction Contracts

MBE/WBEs received 15.1 percent of FTA-funded construction dollars during the Study Period. MBEs received 12.3 percent of these construction contract dollars, and 2.8 percent of total construction dollars went to WBEs. MBE/WBEs that were DBE-certified received 11.7 percent of FTA-funded construction dollars during the Study Period.

Figure IV-3 presents utilization (as a percentage of total construction dollars) of each MBE/WBE group that is presumed to be disadvantaged in 49 CFR Part 26. As shown in Figure IV-3, utilization of Asian Pacific American (5.5%) and Hispanic American-owned businesses (5.8%) was higher than other MBE/WBE groups utilized on construction contracts during the Study Period. Black American (1.0%) and Woman-owned businesses were utilized less than other MBE/WBE groups on construction contracts. Native American (0.0%) and Subcontinent Asian American-owned businesses (0.0%) were not utilized on construction contracts.

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Figure IV-3.
MBE/WBE and DBE share of construction prime contract and subcontract dollars by
race/ethnicity/gender, FFYs 2009-Q3 2015

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 13,980	1.0 %
Asian Pacific American-owned	79,062	5.5
Hispanic American-owned	83,735	5.8
Native American-owned	-	0.0
Subcontinent Asian American-owned	-	0.0
WBE (white woman-owned)	40,493	<u>2.8</u>
Total MBE/WBE	\$ 217,270	15.1 %
Majority-owned	<u>1,216,916</u>	<u>84.9</u>
Total	\$ 1,434,186	100.00 %
DBEs		
Black American-owned	\$ 13,450	0.9 %
Asian Pacific American-owned	68,811	4.8
Hispanic American-owned	66,549	4.6
Native American-owned	-	0.0
Subcontinent Asian American-owned	-	0.0
Unknown minority DBE	-	0.0
WBE (white woman-owned)	18,912	1.3
White male-owned DBE	-	<u>0.0</u>
Total DBE	\$ 167,723	11.7 %
Non-DBE	<u>1,266,463</u>	<u>88.3</u>
Total	\$ 1,434,186	100.0 %

Source: Study Team utilization analysis.

Note: Numbers are rounded to the nearest thousand dollars or tenth of one percent.

D. MBE/WBE and DBE Utilization in Professional Services Contracts

During the Study Period, 30.7 percent of FTA-funded professional services contract dollars went to MBE/WBEs. MBEs received 29.5 percent of these contract dollars, and 1.2 percent of professional services contract dollars went to WBEs. MBE/WBEs that were DBE-certified received 20.7 percent of professional services contract dollars during the Study Period.

Figure IV-4 presents utilization (as a percentage of total professional services dollars) of each MBE/WBE group that is presumed to be disadvantaged in 49 CFR Part 26. As shown in Figure IV-4, utilization of Asian Pacific American-owned businesses (15.9%) on professional services contracts was higher than utilization of other MBE/WBE groups on those contracts during the Study Period. Woman-owned businesses (1.2%) were utilized less than other MBE/WBE groups on FTA-funded professional services contracts.

Figure IV-4.
MBE/WBE and DBE share of professional services prime contract and subcontract dollars
by race/ethnicity/gender, FFYs 2009-Q3 2015

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 22,574	6.1 %
Asian Pacific American-owned	58,804	15.9
Hispanic American-owned	16,808	4.5
Native American-owned	-	0.0
Subcontinent Asian American-owned	11,084	3.0
WBE (white woman-owned)	4,438	<u>1.2</u>
Total MBE/WBE	\$ 113,709	30.7 %
Majority-owned	<u>256,237</u>	<u>69.3</u>
Total	\$ 369,945	100.0 %
DBEs		
Black American-owned	\$ 12,958	3.5 %
Asian Pacific American-owned	51,158	13.8
Hispanic American-owned	4,214	1.1
Native American-owned	-	0.0
Subcontinent Asian American-owned	5,086	1.4
Unknown minority DBE	-	0.0
WBE (white woman-owned)	3,098	0.8
White male-owned DBE	-	<u>0.0</u>
Total DBE	\$ 76,514	20.7 %
Non-DBE	<u>293,431</u>	<u>79.3</u>
Total	\$ 369,945	100.0 %

Source: Study Team utilization analysis.

Note: Numbers are rounded to the nearest thousand dollars or tenth of one percent.

E. MBE/WBE and DBE Utilization as Prime Contractors

MBE/WBE prime contractors received 11.1 percent of FTA-funded construction, professional services, and goods and other services dollars during the Study Period. MBEs received 10.0 percent of these prime contract dollars, and only 1.1 percent of these prime contract dollars went to WBEs. MBE/WBE prime contractors that were DBE-certified received 6.7 percent of all prime contract dollars during the Study Period.

Figure IV-5 presents utilization (as a percentage of total prime contract dollars) of each MBE/WBE group that is presumed to be disadvantaged in 49 CFR Part 26. As shown in Figure IV-5, utilization of Asian Pacific American-owned businesses (7.0%) as prime contractors was higher than utilization of other MBE/WBE groups as prime contractors during the Study Period. Black American (0.0%), Native American (0.0%), Subcontinent

Asian American (0.7%) and Woman-owned businesses (1.1%) were utilized as prime contractors less than other MBE/WBE groups.

**Figure IV-5.
MBE/WBE and DBE share of prime contract dollars by race/ethnicity/gender,
FFYs 2009 – Q3 2015**

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 50	0.0 %
Asian Pacific American-owned	70,309	7.0
Hispanic American-owned	23,301	2.3
Native American-owned	-	0.0
Subcontinent Asian American-owned	7,002	0.7
WBE (white woman-owned)	11,134	<u>1.1</u>
Total MBE/WBE	\$ 111,797	11.1 %
Majority-owned	893,149	<u>88.9</u>
Total	\$ 1,004,946	100.00 %
DBEs		
Black American-owned	\$ 50	0.0 %
Asian Pacific American-owned	64,758	6.4
Hispanic American-owned	746	0.1
Native American-owned	-	0.0
Subcontinent Asian American-owned	1,200	0.1
Unknown minority DBE	-	0.0
WBE (white woman-owned)	603	0.1
White male-owned DBE	-	<u>0.0</u>
Total DBE	\$ 67,358	6.7 %
Non-DBE	937,588	<u>93.3</u>
Total	\$ 1,004,946	100.0 %

Source: Study Team utilization analysis.

Note: Percentages are rounded to the nearest thousand dollars or tenth of one percent.

F. MBE/WBE and DBE Utilization as Subcontractors and Suppliers

MBE/WBE subcontractors and suppliers received 27.4 percent of FTA-funded construction, professional services, and goods and other services dollars during the Study Period. MBEs received 23.2 percent of these dollars, and 4.2 percent of these dollars went to WBEs. MBEs/WBEs that were DBE-certified subcontractors and suppliers received 22.1 percent of all construction, professional services, and goods and other services dollars during the Study Period.

Figure IV-6 presents utilization (as a percentage of total subcontractor and supplier dollars) of each MBE/WBE group that is presumed to be disadvantaged in Part 26. As shown in Figure IV-6, utilization of Hispanic American- (9.7%) and Asian Pacific

American-owned businesses (8.4%) as subcontractors and suppliers was higher than utilization of other MBE/WBE groups as subcontractors and suppliers during the Study Period. Subcontinent Asian American- owned businesses (0.5%) were utilized less than other MBE/WBE groups.

Figure IV-6.
MBE/WBE and DBE Share of subcontract/supplier dollars by race/ethnicity/gender,
FFYs 2009-Q3 2015

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 36,863	4.6 %
Asian Pacific American-owned	67,221	8.4
Hispanic American-owned	77,187	9.7
Native American-owned	-	0.0
Subcontinent Asian American-owned	4,113	0.5
WBE (white woman-owned)	33,797	<u>4.2</u>
Total MBE/WBE	\$ 219,181	27.4 %
Majority-owned	580,004	<u>72.6</u>
Total	\$ 799,185	100.0 %
DBEs		
Black American-owned	\$ 26,358	3.3 %
Asian Pacific American-owned	55,211	6.9
Hispanic American-owned	70,017	8.8
Native American-owned	-	0.0
Subcontinent Asian American-owned	3,886	0.5
Unknown minority DBE	-	0.0
WBE (white woman-owned)	21,407	2.7
White male-owned DBE	-	<u>0.0</u>
Total DBE	\$ 176,879	22.1
Non-DBE	622,306	<u>77.9</u>
Total	\$ 799,185	100.0 %

Source: Study Team utilization analysis.

Note: Numbers are rounded to the nearest thousand dollars or tenth of one percent.

G. MBE/WBE and DBE Utilization as Prime Contractors on Small Contracts

MBE/WBE prime contractors received 19.7 percent of all construction, professional services, and goods and other services “small contract” dollars during the Study Period. “Small contract” refers to FTA-funded construction contracts under \$5 million and under \$1 million for professional services (including goods and other services). MBEs received 17.7 percent of these contract dollars, while WBEs received 2.0 percent of these contract dollars. MBE/WBEs that were DBE-certified prime contractors received 6.1 percent of all small contract dollars during the Study Period.

Figure IV-7 presents utilization (as a percentage of small contract dollars) of each MBE/WBE group that is presumed to be disadvantaged in 49 CFR Part 26. As shown in Figure IV-7, utilization of Asian Pacific American (9.1%) and Hispanic American-owned businesses (8.4%) as prime contractors was higher than utilization of other MBE/WBE groups as prime contractors on these small contracts during the Study Period. Black American (0.1%) and Subcontinent Asian American-owned businesses (0.0%) were utilized less than other MBE/WBE groups.

Figure IV-7.
MBE/WBE and DBE Share of small contracts by race/ethnicity/gender,
FFYs 2009-Q3 2015

	Total \$ in thousands	Total Percent
MBE/WBEs		
Black American-owned	\$ 50	0.1 %
Asian Pacific American-owned	3,940	9.1
Hispanic American-owned	3,618	8.4
Native American-owned	-	0.0
Subcontinent Asian American-owned	21	0.0
WBE (white woman-owned)	852	<u>2.0</u>
Total MBE/WBE	\$ 8,482	19.7 %
Majority-owned	34,584	<u>80.3</u>
Total	\$ 43,066	100.0 %
DBEs		
Black American-owned	\$ 50	0.1 %
Asian Pacific American-owned	1,239	2.9
Hispanic American-owned	746	1.7
Native American-owned	-	0.0
Subcontinent Asian American-owned	-	0.0
Unknown minority DBE	-	0.0
WBE (white woman-owned)	603	1.4
White male-owned DBE	-	<u>0.0</u>
Total DBE	\$ 2,639	6.1
Non-DBE	40,427	<u>93.9</u>
Total	\$ 43,066	100.0 %

Source: Study Team utilization analysis.

Note: Percentages are rounded to the nearest thousand dollars or tenth of one percent.

Chapter V

Disparity Analysis

The disparity analysis compared the utilization of minority- and woman-owned businesses (MBE/WBEs) on transportation contracts that SFMTA awarded during the Study Period to what those businesses might be expected to receive based on their availability for that work. Section V presents the disparity analysis in seven parts:

- A. Overview of disparity analysis;
- B. Overall disparity analysis results;
- C. Disparity analysis results for prime contractors compared to subcontractors and suppliers;
- D. Disparity analysis results in different portions of the Study Period;
- E. Disparity analysis results by size of contract;
- F. Disparity analysis results for construction and professional services contracts; and
- G. Statistical significance of disparity analysis results.

A. Overview of Disparity Analysis

As part of the disparity analysis, the Study Team compared the actual utilization of MBE/WBEs on SFMTA FTA-funded transportation prime contracts and subcontracts with the percentage of contract dollars that MBE/WBEs might be expected to receive based on their availability for that work. (Availability is also referred to as the “utilization benchmark.”) The Study Team made those comparisons for each individual MBE/WBE group. The Study Team reports disparity analysis results for all SFMTA transportation contracts considered together and separately for different sets of contracts (e.g., construction and professional services).

The Study Team expressed both actual utilization and availability as percentages of the total dollars associated with a particular set of contracts, making them directly comparable (e.g., 2% utilization compared with 10 percent availability). The Study Team then calculated a “disparity index” to help compare utilization and availability results among MBE/WBE groups and across different sets of contracts.

Figure V-1 describes how the Study Team calculated disparity indices.

**Figure V-1.
Calculation of disparity indices**

The disparity index provides a way of assessing how closely the actual utilization of an MBE/WBE group matches the percentage of contract dollars that the group might be expected to receive based on its availability for a specific set of contracts. One can directly compare a disparity index for one group to that of another group and compare disparity indices across different sets of contracts. The Study Team calculates disparity indices using the following formula:

$$\frac{\% \text{ actual utilization} \times 100}{\% \text{ availability}}$$

For example, if actual utilization of WBEs on a set of contracts was 2 percent and the availability of WBEs for those contracts was 10 percent, then the disparity index would be 2 percent divided by 10 percent, which would then be multiplied by 100 to equal 20. In this example, WBEs would have actually received 20 cents of every dollar that they might be expected to receive based on their availability.

A disparity index of 100 indicates an exact match between actual utilization and availability for a particular MBE/WBE group for a specific set of contracts (often referred to as “parity”). A disparity index of less than 100 may indicate a disparity between utilization and availability, and disparities of less than 80 are described in this report as “substantial.”²⁵

The disparity analysis results that the Study Team presents in Section V summarize detailed disparity analysis tables provided in Appendix B. Each table in Appendix B presents disparity analysis results for a different set of SFMTA contracts. For example, Figure B-2 in Appendix B reports disparity analysis results for all SFMTA transportation contracts that the Study Team examined as part of the study — that is, FTA-funded transportation-related prime contracts and subcontracts that SFMTA awarded during the Study Period. Appendix B includes analogous tables for different subsets of contracts, including those that present results separately for prime contracts and subcontracts; contracts in different parts of the Study Period; small and large contracts; and construction and professional services contracts. The heading of each table in Appendix B provides a description of the subset of contracts that the Study Team analyzed for that particular disparity analysis table.

²⁵ Some courts deem a disparity index below 80 as being “substantial” and have accepted it as evidence of adverse impacts against MBE/WBEs. For example, see *Rothe Development Corp v. U.S. Dept of Defense*, *supra* at 1041 citing *Eng’g Contractors Ass’n of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 914, 923 (11th Cir. 1997).

A review of Figure V-2 helps to introduce the calculations and format of all of the disparity analysis tables in Appendix B. (Figure V-2 is identical to Figure B-2 in Appendix B.) As illustrated in Figure V-2, the disparity analysis tables present information about each MBE/WBE group (as well as about all businesses) in separate rows:

“All firms” in row (1) pertains to information about all majority-owned businesses and MBE/WBEs considered together.

Row (2) provides results for all MBE/WBEs, regardless of whether they were certified as Disadvantaged Business Enterprises (DBEs) through the California Unified Certification Program (CUCP).

Row (3) provides results for all WBEs, regardless of whether they were certified as DBEs through CUCP.

Row (4) provides results for all MBEs, regardless of whether they were certified as DBEs through CUCP.

Rows (5) through (10) provide results for businesses of each individual minority group, regardless of whether they were certified as DBEs through CUCP.

The bottom half of Figure V-2 presents analogous results for businesses that were certified as DBEs during the Study Period. The Study Team included a row for white male-owned DBEs, although the analysis did not identify any white male-owned DBEs that SFMTA utilized on transportation prime contracts or subcontracts during the Study Period.

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Figure V-2.
Example of a disparity analysis table from Appendix B (same as Figure B-2 in Appendix B)

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	656	\$1,804,131	\$1,804,131				
(2) MBE/WBE	297	\$330,979	\$330,979	18.3	17.6	0.8	104.5
(3) WBE	50	\$44,931	\$44,931	2.5	5.0	-2.5	50.1
(4) MBE	247	\$286,048	\$286,048	15.9	12.6	3.3	125.9
(5) Black American-owned	51	\$36,221	\$36,668	2.0	1.8	0.2	110.5
(6) Asian-Pacific American-owned	108	\$136,266	\$137,947	7.6	3.9	3.8	197.3
(7) Subcontinent Asian American-owned	13	\$11,038	\$11,175	0.6	0.2	0.5	200+
(8) Hispanic American-owned	68	\$99,037	\$100,259	5.6	6.7	-1.1	83.0
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	7	\$3,486					
(11) DBE-certified	181	\$244,237	\$244,237	13.5			
(12) Woman-owned DBE	19	\$22,010	\$22,010	1.2			
(13) Minority-owned DBE	162	\$222,227	\$222,227	12.3			
(14) Black American-owned DBE	38	\$26,409	\$26,409	1.5			
(15) Asian-Pacific American-owned DBE	70	\$119,969	\$119,969	6.6			
(16) Subcontinent Asian American-owned DBE	10	\$5,086	\$5,086	0.3			
(17) Hispanic American-owned DBE	44	\$70,763	\$70,763	3.9			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Notes: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Study Team Disparity Analysis.

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

Column (a) presents the number of prime contracts and subcontracts (i.e., contract elements) that the Study Team analyzed for that particular set of contracts. As shown in row (1) of column (a) of Figure V-2, the Study Team analyzed 656 contract elements. The value presented in column (a) for each individual MBE/WBE group represents the number of contract elements on which businesses of that particular group were utilized (e.g., as shown in row (5) of column (a), Black American-owned businesses were utilized on 51 prime contracts and subcontracts).

Column (b) presents the dollars (in thousands) that were associated with the set of contract elements. As shown in row (1) of column (b) of Figure V-2, the Study Team examined approximately \$1.8 billion for the set of contract elements. The dollar totals include both prime contract and subcontract dollars.

Column (c) presents the contract dollars (in thousands) for which each MBE/WBE group was utilized on the set of contracts after adjusting total dollars for businesses that the Study Team identified as MBEs, but for which specific race/ethnicity information was not available. The Study Team distributed the dollars that went to “unknown MBEs” to each MBE group on a pro-rated dollars basis. For example, because Black American-owned businesses received 13 percent of the total contract dollars that all MBEs received, the Study Team distributed 13 percent of the dollars that went to unknown MBEs to Black American-owned businesses. As shown in row (10) of column (b) of Figure V-2, across all transportation contracts that SFMTA awarded during the Study Period, there was approximately \$3.5 million that went to unknown MBEs.

Column (d) presents the utilization of each MBE/WBE group as a percentage of total dollars associated with the set of contract elements. The Study Team calculated each percentage in column (d) by dividing the dollars going to a particular group in column (c) by the total dollars associated with the set of contract elements shown in row (1) of column (c), and then expressing the result as a percentage (e.g., for Black American-owned businesses, the Study Team divided \$36.7 million by \$1.8 billion and multiplied by 100 for a result of 2.0%, as shown in row (5) of column (d)).

Availability (utilization benchmark). Column (e) of Figure V-2 presents the availability of each MBE/WBE group for all transportation prime contracts and subcontracts that SFMTA awarded during the Study Period. Availability estimates, which are represented as a percentage of the total contracting dollars associated with the set of contracts, serve as a benchmark against which to compare utilization for a specific group for a particular set of contracts (e.g., as shown in row (5) of column (e), availability of Black American-owned businesses is 1.8%, compared with 2.0% utilization for those businesses). The Study Team did not calculate availability figures separately for businesses that were DBE-certified.

Differences between utilization and availability. The next step in analyzing whether there was a disparity between the utilization and availability of a particular MBE/WBE group is to subtract the utilization result from the availability result. Column (f) of Figure V-2 presents the percentage point difference between utilization and availability for each MBE/WBE group. For example, as presented in row (2) of column (f) of Figure V-2, MBE/WBE utilization was 0.8 percentage points higher than MBE/WBE availability.

Disparity indices. It is sometimes difficult to interpret absolute percentage differences between utilization and availability, especially when the percentages are relatively small. Therefore, the Study Team also calculated a disparity index for each MBE/WBE group, which measured utilization relative to availability and served as a metric to compare any disparities across different MBE/WBE groups and across different sets of contracts. The Study Team calculated disparity indices by dividing percent utilization for each group by percent availability and multiplying the result by 100. Thus, smaller values for the disparity indices indicated greater disparities (i.e., a greater degree of underutilization).

Column (g) of Figure V-2 presents the disparity index for each MBE/WBE group. For example, as reported in row (2) of column (g), the disparity index for all MBE/WBEs considered together was 104.5, indicating that MBE/WBEs actually received approximately \$1.04 for every dollar that they might be expected to receive based on their availability for the transportation prime contracts and subcontracts that SFMTA awarded during the Study Period. The Study Team did not calculate disparity indices separately for DBE-certified businesses.

Results when disparity indices were very large or when availability was zero. The Study Team applied the following rules when disparity indices were exceedingly large or could not be calculated because the Study Team did not identify any businesses of a particular group as available for a particular set of contract elements:

When the Study Team's calculations showed a disparity index exceeding 200, the Study Team reported an index of "200+." A disparity index of 200+ means that utilization was more than twice as much as availability for a particular group for a particular set of contracts.

When there was no utilization and 0 percent availability for a particular group for a particular set of contracts, the Study Team reported a disparity index of "100," indicating parity.

When utilization for a particular group for a particular set of contracts was greater than 0 percent but availability was 0 percent, the Study Team reported a disparity index of “200+.”²⁶

B. Overall Disparity Analysis Results

The Study Team used the disparity analysis results from Figure V-2 (corresponding to Figure B-2 in Appendix B) to assess any disparities between MBE/WBE utilization and availability on all transportation prime contracts and subcontracts that SFMTA awarded during the Study Period. Figure V-3 presents disparity indices for all MBE/WBE groups considered together and separately for each group. The line down the center of the graph shows a disparity index level of 100, which indicates parity between utilization and availability. Disparity indices less than 100 indicate disparities between utilization and availability (i.e., underutilization). For reference, a line is also drawn at an index level of 80, because some courts use 80 as a threshold for what indicates a substantial disparity.

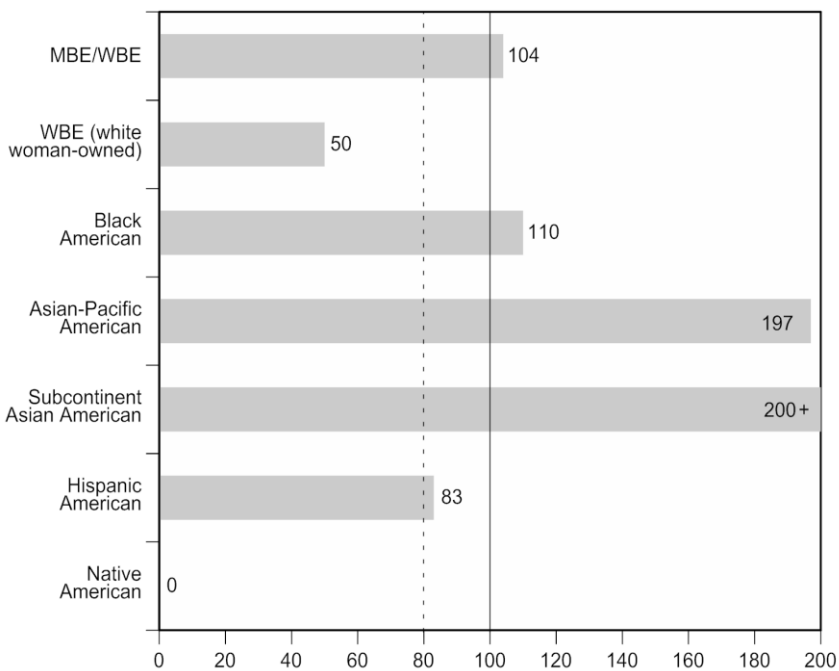
Figure V-3.
Disparity indices for
SFMTA transportation
contracts

Note:

The Study Team analyzed 656 SFMTA contract elements.

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

Source: Study Team availability and utilization analyses.



As shown in Figure V-3, overall, utilization of MBE/WBEs on SFMTA transportation contracts during the Study Period was at least what might be expected based on their availability for those contracts. The disparity index of 104 indicates that all MBE/WBEs considered together received 104 percent of the contract dollars that they might be expected to receive based on their availability for those contracts. Key results include:

²⁶ A particular MBE/WBE group could show a utilization percentage greater than 0 percent but an availability percentage of 0 percent for many reasons, including the fact that one or more utilized businesses were out of business at the time that the Study Team conducted availability interviews.

Two MBE/WBE groups exhibited disparity indices below parity and below the substantial disparity index threshold — non-Hispanic white woman-owned businesses (disparity index of 50) and Native American-owned businesses (disparity index of 0).²⁸

Hispanic American-owned businesses also exhibited a disparity index below parity (disparity index of 83).

Black American-owned businesses (disparity index of 110), Asian Pacific American-owned businesses (disparity index of 197), and Subcontinent Asian American-owned businesses (disparity index of 200+) did not exhibit disparities.

C. Disparity Analysis Results for Prime Contractors and Subcontractors and Suppliers

Figure V-4 presents disparity analysis results separately for prime contractors and subcontractors and suppliers.

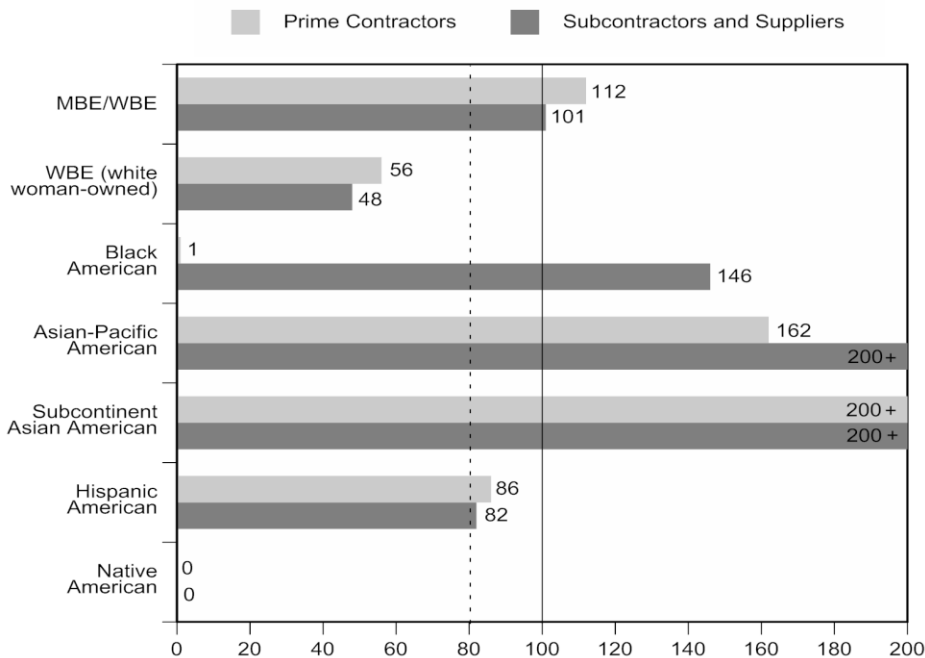
Figure V-4.
Disparity indices for prime contractors and subcontractors and suppliers on SFMTA transportation contracts

Note:

Number of prime contracts analyzed was 194. Number of subcontracts and supplier contracts was 462.

See Figures B-3 and B-4 in Appendix B, for corresponding disparity results tables.

Source: Study Team availability and utilization analyses.



MBE/WBEs overall did not show disparities on prime contracts or subcontracts. Key results at the prime contractor and subcontractor/supplier level include:

Three MBE/WBE groups showed substantial disparities at the prime contractor level: non-Hispanic white woman-owned businesses (disparity index of 56); Black American-owned businesses (disparity index of 1); and Native American-owned businesses (disparity index of 0).

²⁸ Note that there was some availability of Native American-owned businesses (i.e., six construction firms) even though the level was small enough to round to 0.0 in column (e) of Figure V-2.

Two of those MBE/WBE groups showed substantial disparities at the subcontractor level: non-Hispanic white woman-owned businesses (disparity index of 48); and Native American-owned businesses (disparity index of 0).

Hispanic American-owned businesses showed disparities at the prime contractor level (disparity index of 86) and subcontractor/supplier level (disparity index of 82).

Two MBE/WBE groups did not show disparities at the prime contractor or the subcontractor/supplier level: Asian Pacific American-owned businesses (disparity indices of 162 as prime contractors and 200+ as subcontractors/suppliers); and Subcontinent Asian American-owned businesses (disparity indices of 200+ as prime contractors and subcontractors/suppliers).

D. Disparity Analysis Results in Different Portions of the Study Period

The Study Team performed disparity analyses for subsets of the Study Period to determine whether there were consistent trends in disparity indices between groups. Figure V-5 presents disparity analysis results separately for Federal Fiscal Year (FFY) 2009 through FFY 2011 and for FFY 2012 through Q3 FFY 2015 (generally, the first and second portions of the Study Period, respectively). These dates were selected because they represented an approximate split in terms of years and number of contracts awarded during the Study Period.

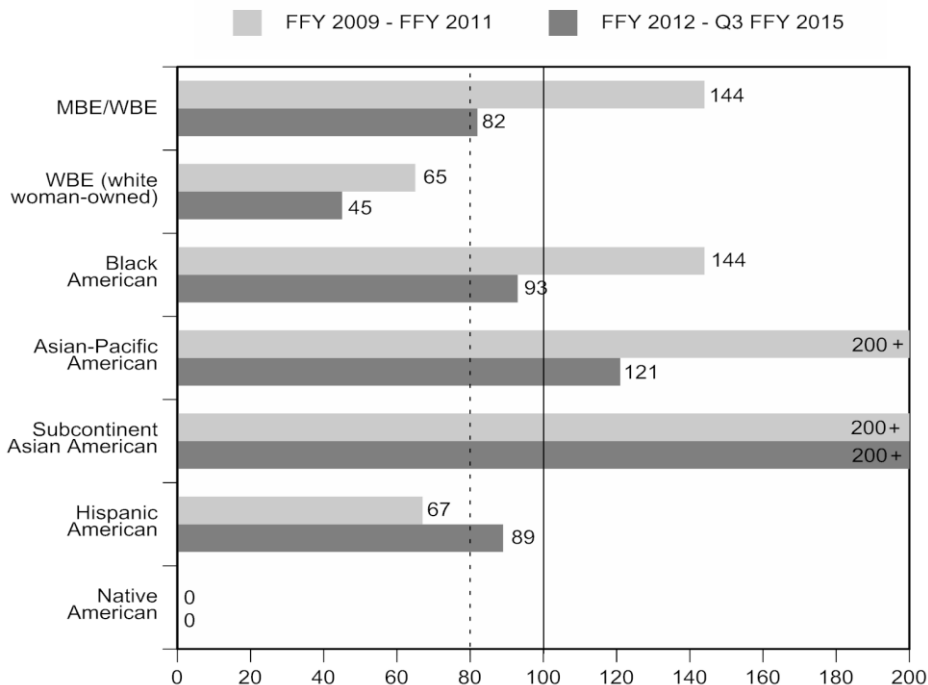
Figure V-5.
Disparity indices for
FFY 2009 – FFY 2011
and FFY 2012 – Q3 FFY
2015 on SFMTA
transportation contracts

Note:

Number of contracts analyzed during FFY 2009 – FFY 2011 was 320. Number of contracts analyzed during FFY 2012 – Q3 FFY 2015 was 336.

See Figures B-5 and B-6 for corresponding disparity results tables.

Source: Study Team availability and utilization analyses.



MBE/WBEs overall did not show disparities during the first part of the Study Period (disparity index of 144), but did show disparities during the last portion of the Study Period (disparity index of 82). Key results by time period include:

Three MBE/WBE groups showed substantial disparities during the FFY 2009 – FFY 2011 period: non-Hispanic white woman-owned businesses (disparity index of 65); Hispanic American-owned businesses (disparity index of 67); and Native American-owned businesses (disparity index of 0).

Two MBE/WBE groups showed substantial disparities during the FFY 2012 – Q3 FFY 2015 period: non-Hispanic white woman-owned businesses (disparity index of 45); and Native American-owned businesses (disparity index of 0).

Hispanic American-owned businesses and Black American-owned businesses also showed disparities during the FFY 2012 – Q3 FFY 2015 period (disparity indices of 89 and 93, respectively).

Two MBE/WBE groups did not show a disparity during either the FFY 2009 – FFY 2011 or the FFY 2012 – Q3 FFY 2015 periods: Asian Pacific American-owned businesses (disparity indices of 200+ and 121, respectively); and Subcontinent Asian American-owned businesses (disparity indices of 200+ for each period).

E. Disparity Analysis Results by Size of Contract

Figure V-6 presents disparity analysis results separately for small contracts and large contracts. That analysis was performed at the prime contractor level for the overall contract value (including the subcontractor/supplier portions of the contract).

Figure V-6.
Disparity indices for small and large
contract sizes on SFMTA
transportation contracts

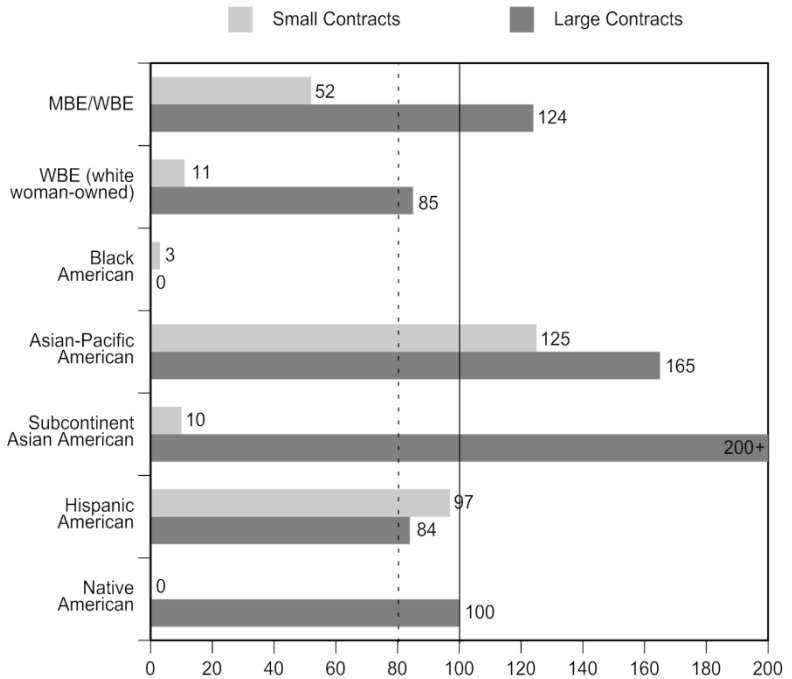
Note:

Small contracts are defined as those under \$5 million for construction and under \$1 million for professional services. Large contracts are defined as those \$5 million and over for construction and \$1 million and over for professional services.

Number of small contracts analyzed was 138.
 Number of large contracts was 56.

See Figures B-7 and B-8 for corresponding disparity results tables.

Source: Study Team availability and utilization analyses.



Overall, MBE/WBEs did show substantial disparities on small contracts (disparity index of 52) and did not show disparities on large contracts (disparity index of 124).²⁹ Key results include:

Three MBE/WBE groups showed disparities at both the small and large contract level: non-Hispanic white woman-owned businesses (disparity indices of 11 and 85, respectively); Black American owned-businesses (disparity indices of 3 and 0, respectively); and Hispanic American-owned businesses (disparity indices of 97 and 84, respectively).

Two MBE/WBE groups showed disparities for small contracts but not for large contracts: Subcontinent Asian American-owned businesses (disparity indices of 10 and 200+, respectively); and Native American-owned businesses (disparity indices of 0 and 100, respectively).

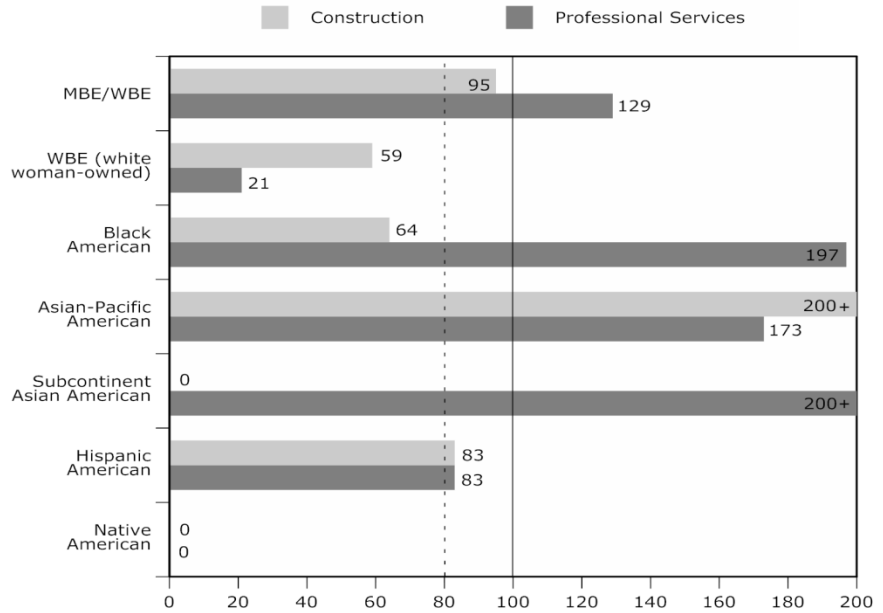
Asian Pacific American-owned businesses did not show disparities on either small or large contracts (disparity indices of 125 and 165, respectively).

F. Disparity Analysis Results for Construction and Professional Services Contracts

Figure V-7 presents disparity analysis results by subindustry: construction and professional services.

²⁹ Small contracts are defined as those under \$5 million for construction and under \$1 million for professional services. Large contracts are defined as those \$5 million and over for construction and \$1 million and over for professional services.

Figure V-7.
Disparity indices for
construction and professional
services on SFMTA
transportation contracts



Note:

Number of contracts analyzed was 401 for construction and 255 for professional services.

See Figures B-9 and B-10 for corresponding disparity results tables.

Source: Study Team availability and utilization analyses.

MBE/WBEs overall were close to parity for construction contracts. MBE/WBEs overall did not show disparities for professional services contracts (disparity index of 129). Other key results include:

Four MBE/WBE groups showed substantial disparities on construction contracts: non-Hispanic white woman-owned businesses (disparity index of 59); Black American-owned businesses (disparity index of 64); Subcontinent Asian American-owned businesses (disparity index of 0); and Native American-owned businesses (disparity index of 0).

Hispanic American-owned businesses also showed a disparity on construction contracts, though that disparity was not substantial (disparity index of 83).

Asian Pacific American-owned businesses were the only MBE/WBE group that did not show a disparity on construction contracts (disparity index of 200+).

Two MBE/WBE groups showed substantial disparities on professional services contracts: non-Hispanic white woman-owned businesses (disparity index of 21); and Native American-owned businesses (disparity index of 0).

Hispanic American-owned businesses also showed a disparity on professional services contracts, though that disparity was not substantial (disparity index of 83).

Three MBE/WBE groups did not show a disparity on professional services contracts: Black American-owned businesses (disparity index of 197); Asian Pacific American-owned businesses (disparity index of 173); and Subcontinent Asian American-owned businesses (disparity index of 200+).

G. Statistical Significance of Disparity Analysis Results

Statistical significance tests allow researchers to test the degree to which they can reject “random chance” as an explanation for any observed quantitative differences. Random chance in data sampling is the factor that researchers consider most in determining the statistical significance of results. However, the Study Team attempted to contact every firm in the relevant geographic market area that Dun & Bradstreet (D&B) identified as doing business within relevant subindustries (as described in Chapter III), mitigating many of the concerns associated with random chance in data sampling as they may relate to the Study Team’s availability analysis. Much of the utilization analysis also approaches a “population” of contracts. Therefore, one might consider any disparity identified when comparing overall utilization with availability to be “statistically significant.” Figure V-8 explains the relatively high level of statistical confidence inherent in the utilization and availability results.

Figure V-8. Statistical confidence in availability and utilization results

As part of the availability analysis, the Study Team conducted telephone and web-survey interviews with more than 1000 businesses. The confidence interval around the Study Team’s estimate of MBE/WBE representation among all businesses available for SFMTA transportation work — 38.8 percent — is accurate within about +/- 1.5 percentage points at the 95 percent confidence level (The Study Team applied the finite population correction factor when determining confidence intervals). By comparison, many survey results for proportions reported in the popular press are accurate within about +/- 5 percentage points.

Monte Carlo analysis. The Study Team used a computational algorithm that relies on repeated, random sampling to further examine statistical significance of disparity analysis results. This approach is termed a Monte Carlo method. Figure V-9 provides additional information about how the Monte Carlo analysis was performed.

The analyses that the Study Team completed as part of the Study were well-suited for using Monte Carlo analysis to test the statistical significance of disparity analysis results. Monte Carlo analysis was appropriate for that purpose because among the contracts SFMTA awarded during the Study Period, there were many individual chances for businesses to win prime contracts and subcontracts, each with a different payoff (i.e., each with a different dollar value).

It is important to note that Monte Carlo simulations may not be necessary to establish the statistical significance of results (see discussion in Figure V-8), and it may not be appropriate for very small populations of businesses.

**Figure V-9.
Monte Carlo Analysis**

The Study Team began the Monte Carlo analysis by examining individual contract elements. For each contract element, the Study Team’s availability database provided information on individual businesses that were available for that contract element based on type of work, contractor role, contract size, and location of the work.

The Study Team assumed that each available business had an equal chance of winning that contract element. For example, the odds of a WBE receiving that contract element were equal to the number of WBEs available for the contract element divided by the total number of businesses available for the work. The Monte Carlo simulation then randomly chose a business from the pool of available businesses to win the contract element.

The Monte Carlo simulation repeated the above process for all other elements in a particular set of contracts. The output of a single Monte Carlo simulation for all contract elements in the set represented simulated utilization of MBE/WBEs, by group, for that set of contract elements.

The entire Monte Carlo simulation was then repeated one million times for each set of contracts. The combined output from all one million simulations represented a probability distribution of the overall utilization of MBE/WBEs if contracts were awarded randomly based on the availability of businesses working in the SFMTA transportation contracting industry.

The output of the Monte Carlo simulations represents the number of runs out of one million that produced a simulated utilization result that was equal or below the observed utilization in the actual data for each MBE/WBE group and for each set of contracts. If that number was less than or equal to 50,000 (i.e., 5.0% of the total number of runs), then the Study Team considered that disparity index to be statistically significant at the 95 percent confidence level. If that number was less than or equal to 100,000 (i.e., 10.0% of the total number of runs), then the Study Team considered that disparity index to be statistically significant at the 90 percent confidence level.

Results. The Study Team identified substantial disparities for WBEs overall on SFMTA contracts during the Study Period.

The Study Team applied Monte Carlo analysis to those disparity analysis results. Figure V-10 presents the results from the Monte Carlo simulations as they relate to the statistical significance of disparities that the Study Team observed for MBE/WBEs.

As shown in Figure V-10, the probability that the observed disparity for WBEs was due to chance is 11.4 percent for all contracts.

**Figure V-10.
Monte Carlo simulation results for disparity analyses, WBEs overall**

Group	Disparity index	Number of simulation runs out of one million that replicated observed utilization	Probability of observed disparity occurring due to "chance"
Non-Hispanic white women	50	113,711	11.4 %

Note: Numbers rounded to nearest tenth of 1 percent.
Source: The Study Team availability and utilization analyses.

Chapter VI

Outreach and Anecdotal Evidence

No availability or disparity study is complete without stakeholder engagement and the examination of anecdotal evidence. This component of a study is critical to understanding the statistical evidence as well as the underlying reasons for MBE/WBE contractor participation (or not) in an agency's contract opportunities. The Study Team undertook several steps to ensure that the outreach to market area businesses, trade organizations and other stakeholders was robust, interactive and as complete as possible.

One of the initial tasks facing the Study Team was preparing for and conducting an initial kick-off public meeting, which was held on October 23, 2014. The Study Team made a concerted effort to invite, by email, thousands of potentially interested businesses in the greater San Francisco Bay Area.

On October 23, 2014, over 100 business representatives participated in the public meeting where SFMTA and the Study Team shared information on the purpose and objectives of the Study. Attendees were informed that the Study would include completing a market area analysis and additional outreach to stakeholders to elicit anecdotal evidence of SFMTA and transportation industry business practices and challenges. Although the kick-off meeting was to introduce the Study's objectives and team members, many of the business representatives in attendance provided invaluable input and feedback about their experiences and perceptions on competing for business and contracts in the Bay Area marketplace. An often-voiced concern among the business owners was the need for SFMTA to ensure a level playing field for small minority- and woman-owned businesses in the contracting process.

Once the Study Team determined the market areas (see Chapter II), the second major task was to assist with outreach to all potentially available market area firms to assess their interest and capability in participating in SFMTA federally assisted contract opportunities. The total number of potentially available market firms was approximately 12,832. Given the large number of firms, the Study Team employed several methods to connect with the business owners, including online and telephone surveys, customized questionnaire surveys, as well as an attempt to reach firms by postcard. For Spanish speaking business owners, the Study Team conducted telephone interviews in Spanish.

Another outreach tool the Study Team employed to reach market area firms was to enlist the help of trade organizations within the market areas to send a message to their respective members to respond to Study Team requests for information. Over 20 trade organizations were approached for this effort, including the Associated General Contractors of California,

Coalition for Economic Equity, National Association of Minority Contractors (Northern and Southern California Chapters); Associated Builders and Contractors, ethnic chambers and organizations of commerce in San Francisco, Alameda, Santa Clara, and Los Angeles Counties, National Association of Women in Construction and the San Francisco Builders Exchange.

On June 10, 2015, a second public hearing was held by SFMTA and the Study Team to report on the progress of the Study and for the Study Team to receive anecdotal evidence on business experiences with SFMTA and relevant information on transportation industry practices within the market area counties. The Study Team reached out to firms to attend and provide public testimony. An invitation was emailed to market area firms, and phone calls were also made to encourage people to attend the hearing. If firms were unable to attend the anecdotal hearing, they were encouraged to deliver a copy of their written comments to SFMTA where the June 10 hearing was conducted, or email/mail/personally deliver them to the Study Team's offices in San Francisco. Six attendees at the June 10 hearing gave their testimony (including two trade organization representatives), which was recorded by a court stenographer. (See Appendix C, June 10, 2015 transcript of hearing).

The speakers at the hearing were of diverse racial and ethnic backgrounds and owned firms in the construction, professional services and suppliers of goods subindustries. Notwithstanding the differences in disciplines and personal history, all of the individuals offering testimony presented common themes. Specifically, the anecdotal evidence identified various continuing challenges faced by small minority and woman-owned firms in doing business and/or expanding their businesses in the San Francisco Bay Area transportation industry. A recurring observation made was that there continues to be a lack of opportunities for which minority contractors can successfully compete as contractors and consultants or through which firms can develop and grow their capacity to undertake more work. The owner of a Black American-owned business eloquently stated what others also touched on:

Whether business owners believe they have been treated unfairly based on their race, ethnicity or gender; I would say racism still exists, sexism still exists, but it is structural. It's not blatant, it's subtle. Discrimination is more difficult to identify and correct...The old saying that you need to be twice as good is still true to some degree today. Things are improving greatly. Also I will tell you from the private side, the phone does not ring unless there is [sic] DBE or small business goals in the contract. If the primes know the agency is serious about promoting small business and DBEs...they will mirror the same values and programs....

(Appendix C at 43:12-44:2).

Recurring Concerns

Beyond the two community meetings, surveys allowed firms to comment, complain or provide information on contracting practices. Study Team members also conducted meetings and/or telephone conferences with several small businesses to discuss their experiences in competing for contracts or working with SFMTA and/or its prime contractors. Some of the recurring concerns that emerged from this body of information, with an illustration of the practices, are:

- Complaints that SBEs/DBEs are listed on successful bids and contracts but are not utilized after the contract award stage.
 - One San Francisco based Black American professional services firm was awarded a contract scope but after award a related scope of work arose and it was given to another DBE firm without any notice to the Black American local firm or opportunity to compete for the new work.
- Prime contractors accepting subcontractor bids for work, winning the contract and subsequently reversing the decision post contract award or not honoring the scope of the accepted subcontractor's bid.
 - A Black American subcontractor's \$4 million bid was accepted by a prime contractor, but later the prime contractor offered the subcontractor only \$180,000 of the scope, saying the subcontractor lacked the capacity to perform the originally accepted scope of work.
- Contracting for work and starting it much later, even years later (mainly SFMTA)
 - Discriminatory impact—many firms are unable to wait for long periods of time to begin work, having lost staff in the interim or not being able to ramp up on demand often years after the work has been awarded.
- Setting qualification criteria higher than necessary, including insurance or bonding requirements.

Chapter VII

Marketplace Conditions

Federal courts have found that Congress “spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses and of barriers to entry.”³⁰ Congress found that discrimination has impeded the formation and expansion of qualified MBE/WBEs. Using the most recent data available, the Study Team conducted quantitative and qualitative analyses of conditions in SFMTA’s local marketplace to examine whether barriers for MBE/WBEs that Congress found on a national level also appear in the local marketplace. The Study Team analyzed whether barriers exist in the SFMTA’s marketplace in the construction and professional services for minorities, women (of all races and ethnicities), and for MBE/WBEs, and whether such barriers affect the utilization and availability of MBE/WBEs for SFMTA contracting.

The Study Team examined conditions in SFMTA’s marketplace in four primary areas:

- A. Entry and advancement;
- B. Business ownership;
- C. Access to capital; and
- D. Success of businesses.

Appendices D through G present quantitative information concerning conditions in SFMTA’s local marketplace.

A. Entry and Advancement

The Study Team’s analysis suggests that there are barriers to entry for certain minority groups and for women in the construction, professional services, and other services industries in SFMTA’s market area. For the construction industry, there appears to be barriers to advancing within the industry that continue through occupational advancement.

- Fewer Black Americans worked in the construction industry in SFMTA’s market area than what might be expected based on their representation in the overall workforce. For professional services, barriers may begin with education for certain minority groups.
- Women accounted for particularly few workers in SFMTA’s market area construction, professional services, and other services industries.

³⁰ *Sherbrooke Turf, Inc. v. Minnesota DOT*, 345 F.3d 970 citing *Adarand Constructors, Inc.*, 228 F.3d at 1167 – 76; *Western States Paving Co. v. Washington State DOT*, 407 F.3d at 992.

- Lack of education appears to be a barrier to entry into the professional services industry in SFMTA’s market area for Black Americans, Asian Pacific Americans, Hispanic Americans, Native Americans and other minorities. Workers in each of those groups were less likely to have a four-year college degree compared to non-Hispanic whites. For Black Americans and Hispanic Americans, disparities in educational attainment appear at the high school level, which may affect college opportunities.
- In 2008-2012, there were fewer women than men in the professional services industry in SFMTA’s market area, despite the fact that more women had attained four-year college degrees.

Barriers to advancement in the construction industry may also be an important reason for the relatively low number of minority and female business owners.

- Representation of minorities and women was much lower in certain construction trades (including first-line supervisors) compared with others.
- Excluding Subcontinent Asian Americans, all other minority groups in the construction industry were less likely to be managers than non-Hispanic whites.

Additional information and analyses about entry and advancement are presented in Appendix D.

B. Business Ownership

Disparities in business ownership were present in the construction industry in SFMTA’s market area:

- In both 2000 and 2008-2012, business ownership rates for Black Americans and Hispanic Americans were substantially lower than that of non-Hispanic whites. Business ownership rates were lower for other minority groups as well, but differences were not statistically significant.
- After statistically controlling for a number of neutral factors affecting business ownership, substantially fewer Black Americans and Hispanic Americans owned firms than would be expected if they owned businesses at the same rate as similarly-situated non-Hispanic whites in 2008-2012.
- In 2000 and in 2008-2012, women working in the construction industry had substantially lower rates of business ownership than men. After controlling for a number of race- and gender-neutral factors using 2008-2012 data, substantial disparities persisted in business ownership rates for women.

The Study Team also identified disparities in business ownership rates in the professional services industry in SFMTA’s market area:

- Most minorities working in the professional services industry were self-employed at substantially lower rates than non-Hispanic whites in 2008-2012, including Black Americans, Asian Pacific Americans, Subcontinent Asian Americans, and Hispanic Americans. Black Americans were also employed at substantially lower rates than non-Hispanic whites in 2000.
- In 2000 and in 2008-2012, women working in the professional services industry had substantially lower self-employment rates than men.
- The Study Team used regression models to investigate the presence of race/ethnicity- and gender-based disparities in business ownership rates in 2008-2012 after accounting for the effects of race- and gender-neutral factors. The results indicated substantial disparities for Asian Pacific Americans, Subcontinent Asian Americans, other minority groups, and women.

The Study Team also identified disparities in business ownership rates in the other services industry in SFMTA's market area:

- All minority groups working in the other services industry were self-employed at lower rates than non-Hispanic whites in 2008-2012, a difference that was substantial for all minority groups except for Native Americans and other minorities. In 2000, Black Americans, Asian Pacific Americans, and Hispanic Americans were self-employed at substantially lower rates than non-Hispanic whites.
- In 2000 and in 2008-2012, women working in the other services industry had substantially lower self-employment rates than men.
- The Study Team used regression models to investigate the presence of race/ethnicity- and gender-based disparities in business ownership rates in 2008-2012 after accounting for the effects of race- and gender-neutral factors. The results indicated substantial disparities for Black Americans, Asian Pacific Americans, Subcontinent Asian Americans, and women.

Additional information and analyses about business ownership are presented in Appendix E.

C. Access to Capital

There is evidence that minorities and women continue to face certain disadvantages in accessing capital that is necessary to start, operate and expand businesses based on the information presented in Appendix F.

Capital is required to start companies, so barriers accessing capital can affect the number of minorities and women who are able to start businesses. In addition, minorities and women start business with less capital (based on national data). A number of studies have demonstrated that low levels of wealth among Black Americans and Hispanics contribute to lower business creation rates relative to their representation in the U.S. population. The

amount of startup capital is a strong predictor of business success.³¹ Key results include the following:

- Home equity is an important source of funds for business start-up and growth. Fewer Black Americans, Hispanic Americans, and Native Americans in SFMTA’s relevant market areas own homes compared with non-Hispanic whites, and those who do own homes tend to have lower home values.
- Asian Pacific Americans and Subcontinent Asian Americans are also less likely to own homes in SFMTA’s relevant market areas compared with non-Hispanic whites. However, those who do own homes tend to have higher home values.
- Black Americans, Hispanic Americans, and Native Americans applying for home mortgages in SFMTA’s relevant market areas have been more likely than non-Hispanic whites to have their applications denied.
- Black American, Hispanic American, Native Hawaiian and Pacific Islander, and Native American mortgage borrowers in SFMTA’s relevant market areas have been more likely than non-Hispanic whites to be issued subprime loans.
- There is evidence that Black American and Hispanic American business owners were more likely to have been denied business loan applications than similarly situated non-minorities. Results for the Pacific region appear consistent with national results.
- Among business owners who reported needing business loans, there is evidence that Black Americans, Hispanic Americans and women were more likely to forgo applying for loans due to fear of denial than similarly-situated non-minorities and men. Results for the Pacific region appear to be consistent with national results. In the Pacific region in 2003, Native American business owners were also more likely to forgo applying for loans due to fear of denial than other business owners.
- There is evidence for 2003 that Hispanic American business owners receiving business loans paid higher interests rates than similarly-situated non-minorities (with results for the Pacific region consistent with national results). In the Pacific region, it appeared that Black American-owned firms also paid higher interest rates than other firms.

Additional information and analyses about access to capital for business formation and success are presented in Appendix F.

D. Success of Businesses

The Study Team used the 2010 SBA study of minority business dynamics to examine business closures, expansions, and contractions. That study found that, between 2002 and 2006, 29

³¹ Robb, Alicia. 2012. “Access to Capital among Young Firms, Minority-owned Firms, Woman-owned Firms and High-Tech Firms.” Small Business Administration.

percent of non-publicly held U.S. businesses had expanded their employment, 24 percent had contracted their employment, and 30 percent had closed.³² In the state of California:

- Black American-owned businesses were more likely than white-owned businesses and other businesses to close. Black American-owned businesses were less likely than other businesses to expand.
- Hispanic American-owned businesses were also more likely than white-owned businesses to close. However, Hispanic American-owned businesses were slightly more likely to expand than white-owned businesses.
- Overall, minority-owned businesses were less likely to contract than white-owned businesses.

The Study Team examined several different datasets to examine business receipts and earnings for businesses in California.

- Analysis of 2007 data indicated that, in California, average receipts for all minority- and woman-owned businesses were lower compared to those of majority- or male-owned businesses in the construction industry.
- Those data also indicated that, in California, average receipts for all minority- and woman-owned businesses were lower compared to those of majority- or male-owned businesses in the professional, scientific, and technical services industry.
- Regression analyses using Census data for business owner earnings indicated that in the construction industry, being a Black American, Hispanic American, or woman-owned business was associated with lower revenues, after statistically controlling for certain race- and gender-neutral factors. In the professional services industry, female business owners had lower earnings than similarly situated men in California in 2007 through 2012.
- The Study Team also analyzed revenue data for businesses in the California construction and professional services industries collected as part of the Study's availability interviews.
 - For construction businesses, a smaller percentage of MBEs (50%) and WBEs (66%) reported revenue of over \$1 million than majority-owned businesses (78%).
 - For professional services businesses, a smaller percentage of WBEs (34%) than majority-owned businesses (40%) reported revenue of over \$1 million. The percentage of MBE professional services businesses reporting revenues of over \$1 million was 43 percent.

Additional information and analyses about success of businesses are presented in Appendix G.

³² For analyses using certain data sources, including SBA data and survey data collected by the Study Team, data were unavailable for geographic areas below the California state level.

E. Evidence from the 2012 Caltrans Availability and Disparity Study

BBC Research & Consulting, one of the SFMTA disparity Study Team members, conducted an availability and disparity study for Caltrans that was released by Caltrans in 2012. The utilization, availability, and disparity analyses for that study focused on construction and professional services subindustries in the California transportation contracting industry that overlap with those subindustries studied in the SFMTA disparity study. The Study Period for the Caltrans study (January 1, 2007 through December 31, 2010) also overlaps with a portion of the SFMTA disparity Study Period of analysis (October 1, 2008 through June 30, 2015).

Figure VII-1 shows the disparity indices, by race, ethnicity, and gender, for Caltrans and local agency transportation contract elements that were performed in Caltrans District 4 (the Bay Area).

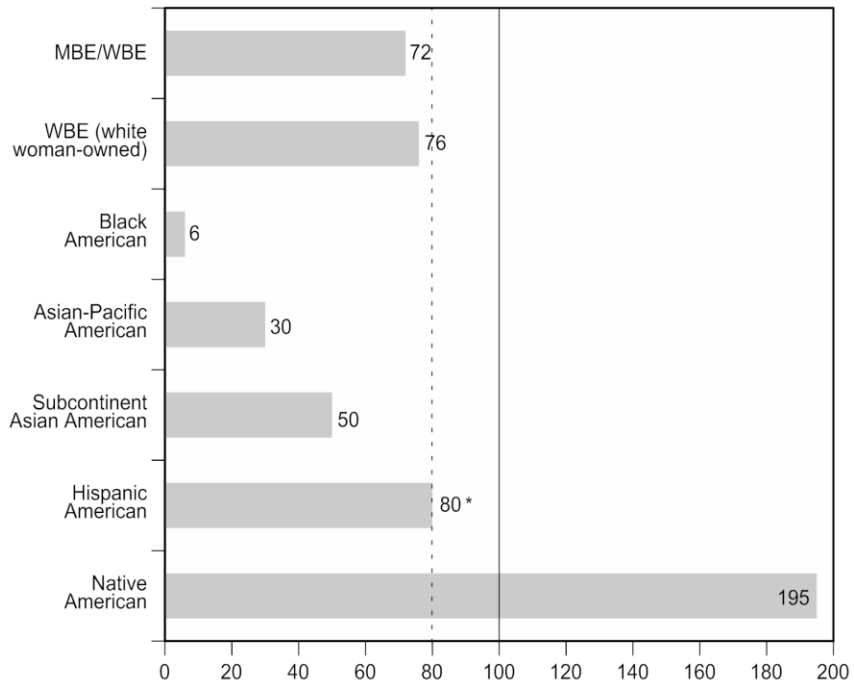
Figure VII-1.
Disparity indices for Caltrans
District 4 (Bay Area)
transportation contracts

Note:

The analysis included 2,541 construction and professional services contracts for transportation work in the Bay Area.

*The disparity index for Hispanic American-owned businesses was 79.8, which was rounded in Figure VII-1 to 80.

Source: BBC Research & Consulting, 2012 Caltrans Disparity Study, Appendix K, Figure K-43.



As shown in Figure VII-1, overall, utilization of MBE/WBEs on Caltrans and local agency transportation contracts was less than what might be expected based on their availability for those contracts. The disparity index of 72 indicates that all MBE/WBEs considered together received only 72 percent of the contract dollars that they might be expected to receive based on their availability for those contracts. Key results include:

- Five of the six MBE/WBE groups showed substantial disparities on Caltrans District 4 transportation contracts: Non-Hispanic white woman-owned businesses (disparity index of 76); Black American-owned businesses (disparity index of 6); Asian Pacific American-owned businesses (disparity index of 30); Subcontinent Asian American-owned businesses

(disparity index of 50); and Hispanic American-owned businesses (disparity index of 79.8); and

- Native American-owned businesses (disparity index of 195) did not show disparities on Caltrans District 4 transportation contracts.

The Caltrans 2012 disparity study also found evidence of barriers that affect minorities, women, and MBE/WBEs in the areas of entry and advancement; business ownership; access to capital; and success of businesses. The Caltrans disparity study also presents anecdotal evidence from businesses and individuals within the SFMTA market area that supports those findings.

F. Evidence from the 2013 Los Angeles County Metropolitan Transportation Authority’s 2012 DBE Disparity Study Report

In 2012, the Los Angeles County Metropolitan Transportation Authority (Metro) commissioned a disparity study. That disparity study identified Metro’s relevant geographic market area as Los Angeles County, one of the five counties in SFMTA’s local market area for construction contracts. The transportation subindustries analyzed in the Metro disparity study included construction, architecture and engineering, goods and other services, and miscellaneous and other professional services, with construction contracts accounting for 46 percent of the total dollars studied. Those subindustries overlap with the subindustries studied in the SFMTA disparity study. Further, the Study Period for the Metro disparity study (January 1, 2008 through December 31, 2010) has overlap with the SFMTA disparity study analysis period (October 1, 2008 through June 30, 2015).

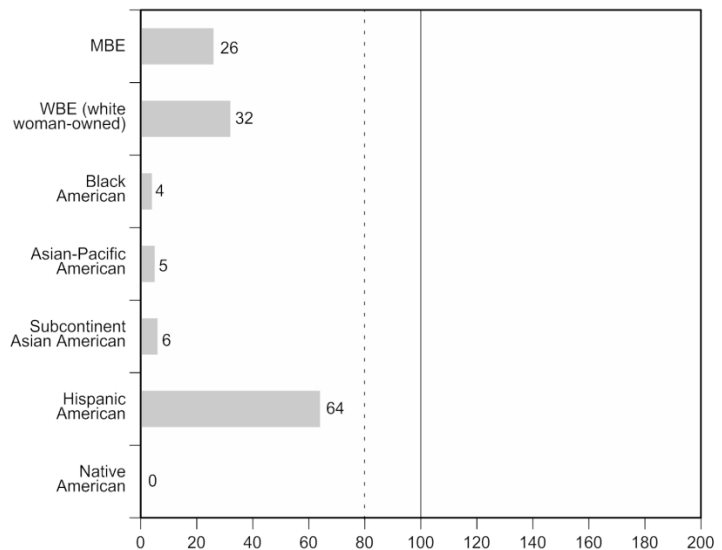
Figure VII-2 presents the disparity indices for all contracting provided in the Metro disparity study report.

Figure VII-2.
Disparity indices for Metro transportation contracts

Note:
Disparity indices provided in the Metro disparity study have been multiplied by 100 so that they equate to disparity indices provided in the SFMTA disparity study report.

The Metro disparity study did not present a disparity index for the combined MBE/WBE category.

Source: Mason Tillman Associates, Ltd., March 2013 Los Angeles County Metropolitan Transportation Authority Disparity Study.



As shown in Figure VII-2, substantial disparities were found for MBEs overall (disparity index of 26); WBEs (disparity index of 32); and each MBE group: Black American-owned businesses (disparity index of 4); Asian Pacific American-owned businesses (disparity index of 5); Subcontinent Asian American-owned businesses (disparity index of 6); Hispanic American-owned businesses (disparity index of 64); and Native American-owned businesses (disparity index of 0).

Additionally, the Metro disparity study provides anecdotal evidence of barriers affecting MBE/WBEs including:

- Good-old-boy networks;
- Difficulty in the contracting process;
- Bid shopping;
- Inadequate time to respond to solicitations;
- Prime contractors avoiding DBE program requirements;
- Agency managers creating barriers;
- Late payments from prime contractors;
- Certification process challenges;
- Difficulty meeting pre-qualifications requirements; and
- Companies acting as fronts.

The Metro disparity study also provided evidence of disparities in business ownership, business earnings, and business loan approvals.

Chapter VIII

SFMTA Procurement Policies, Procedures and Practices Assessment

Chapter VIII presents information on the Study Team's assessment of SFMTA procurement policies, procedures and practices, and is organized in six parts:

- A. Overview of the assessment
- B. SFMTA's Implementation of the Federal DBE Program
- C. Effectiveness of race- and gender-neutral measures
- D. Contracting policies and practices
- E. Contract and regulatory compliance and enforcement
- F. Results of the assessment

A. Overview of the Procurement Policies, Procedures and Practices Assessment

The Study Team examined SFMTA contracting policies, practices and processes, particularly as they pertain to SFMTA's SBE Program, to ascertain whether DBEs and MBE/WBEs have equal opportunity to access SFMTA's FTA-funded contract opportunities and whether discrimination or other barriers exist in these policies, practices and processes. Operating procedures and practices, nondiscrimination policies, outreach to small businesses, and compliance were the main areas of focus.

The Study Team examined numerous documents concerning: the solicitation and proposal evaluation process, the contractor selection process, pre- and post-award contract administration, post-award contract compliance, and regulatory compliance. Anecdotal evidence obtained from the public hearings, one-on-one interviews, and other sources were also considered in this assessment.

B. SFMTA's Implementation of the Federal DBE Program

SFMTA's race-neutral SBE Program³³ has established policies and procedures that comply with 49 CFR Part 26. An SBE is defined as a "for-profit, small business concern that qualifies for the program by being certified under any of the following: the State of California's Small

³³ The Federal DBE program for Federal Highway Administration-funded projects is subject to requirements of the California Department of Transportation (Caltrans).

Business Program, the City and County of San Francisco's local business enterprise program, or the California Unified Certification Program (CUCP).³⁴

Nondiscrimination Policies and Objectives. SFMTA policies concerning efforts that it will take to ensure nondiscrimination in the award and administration of contracts and agreements covered under the SBE Program are included in a policy statement³⁵. The objectives of these policies are to:

1. Remove barriers to DBE participation in the bidding, award and administration of SFMTA contracts;
2. Assist DBEs to develop and compete successfully outside of the Program;
3. Ensure that the Program is narrowly tailored in accordance with 49 CFR Part 26;
4. Ensure that only DBEs meeting the eligibility requirements are allowed to participate as DBEs;
5. Identify business enterprises that are qualified as DBEs and are qualified to provide SFMTA with required materials, equipment, supplies and services; and to develop a good rapport with the owners, managers and sales representatives of those enterprises;
6. Develop communications programs and procedures, which will acquaint prospective DBEs with SFMTA's contract procedures, activities and requirements and allow DBEs to provide SFMTA with feedback on existing barriers to participation and effective procedures to eliminate those barriers;
7. Administer the Program in collaboration with the various divisions within SFMTA to facilitate the successful implementation of this Program.

Operating procedures and practices. The Study Team assessed operating procedures and practices for the SBE Program. These procedures and practices are well documented in SFMTA procedural manuals, policy documents, memoranda and other documents. While several SFMTA divisions are engaged in administering SFMTA contracts, the SFMTA Contract Compliance Office (CCO) establishes participation goals, evaluates bids and specifications to identify potential barriers to participation by DBEs and other small businesses. The CCO also monitors contracts to ensure that contractors meet their commitments to utilizing SBEs, including DBEs. Internal collaboration among SFMTA staff on contracting and small business matters happens routinely, and external communication of SBE Program policies occurs frequently through numerous mechanisms, including outreach

³⁴ <http://californiaucp.org/>

³⁵ SFMTA Disadvantaged Business Enterprises Program Policy Statement, December 11, 2013.

activities, requests for proposals, contractual agreements, and internal monitoring and enforcement.

Outreach initiatives. It is evident that community outreach is a priority for SFMTA. SFMTA individually and in partnership with the Business Outreach Committee, a consortium of regional transit agencies, hosts regular outreach events for the DBE and small business community. During the Study Period, for example, SFMTA participated in more than 60 outreach events focusing on certification, upcoming contracting opportunities, employment, and bonding and financing assistance. SFMTA held public outreach participation collaborative events with nearly 50 partners, including community based organizations, chambers of commerce and governmental agencies. There is substantial documentation of wide dissemination of notices concerning contract opportunities through the media, in trade publications, on the SFMTA website, through trade and business organizations, and through direct notification to firms.

The Study Team found that engaging in special outreach for large contract opportunities (e.g. Central Subway) was a good method of providing information about SFMTA's programs. The effort did not necessarily produce strong participation by firms other than white-male owned firms (see below section C.2.).

C. Effectiveness of race- and gender-neutral measures

The Study Team found that there is significant collaboration among SFMTA staff to facilitate competition by small businesses. In reviewing SFMTA policies and practices, the Study Team identified numerous race-neutral efforts that SFMTA employs to foster small business participation in SFMTA FTA-funded contracts, including establishing small business goals for projects based on the availability of firms to perform the required work, unbundling contracts, small business set-asides, outreach, and utilizing a small business bonding assistance program.

The Study Team analyzed the variety of race-neutral techniques utilized by SFMTA to achieve DBE participation, including their program description, the bid documents from projects with an SBE goal, anecdotal evidence from a public hearing and one-on-one interviews. We address key neutral measures below.

1. Unbundling Contracts

SFMTA has unbundled contracts in the past to achieve DBE participation. Contracts estimated in excess of \$10 million are evaluated for potential unbundling so that DBEs and small businesses may have the opportunity to bid as prime contractors or submit quotes for smaller subcontracting opportunities. SFMTA weighs the following factors when considering whether to unbundle a large contract:

a. Project Structure

If the project involves multiple sites or components SFMTA will consider unbundling the project so that multiple contractors may bid on separate components or sites.

b. Project Duration

Any contract with a schedule in excess of 24 months is evaluated to determine whether it can be broken into phases. Unbundling of contracts makes those projects more accessible to DBE firms which are, by definition, smaller firms.

2. Project specific outreach and technical assistance

As stated, during the Study Period SFMTA has participated in dozens of outreach events focusing on topics such as certification, contracting, and purchasing.

In the largest project bid in the Study Period (Central Subway Stations Contract (Stations Contract)) SFMTA engaged two local firms to provide project specific outreach and technical assistance for SBE firms interested in participating in the project. The outreach consisted of 147,872 communications to SBE firms during the months of January, February and March 2013 highlighting Stations Contract outreach events, workshops, technical assistance and critical information regarding the project.

“Small Business Opportunity Meetings (Meetings)” were conducted with each of the four prime firms pre-qualified to bid on the project. Each prime contractor incorporated project specific technical assistance in the Meetings, including: (1) a presentation on resources the firm would provide to help interested subcontractor firms become involved in the project; (2) assistance creating “Expressions of Interest” forms for the project; and (3) providing information on a special Bonding and Financial Assistance program that SFMTA created specifically for the project. Through this process 178 Expressions of Interest were created and 1,451 DBEs and small businesses received information about the Stations Contract project and the bonding and financial assistance available. Of those, 45 small contractors were provided one-on-one technical assistance, 17 small contractors were pre-qualified for bonding and financial assistance and 15 submitted a bid to at least one of the three prime contractors who bid the project.

The well-organized special outreach conducted for the Stations Contract project was an excellent way of providing information about SFMTA’s programs, but fell short of community expectations and the project DBE goal of 11 percent.

Providing technical assistance was helpful to participating small firms in that they received assistance with how to best “pitch” or describe their qualifications and capabilities to prime contractors. Through the focused outreach process, many small firms were pre-qualified for bonding which, while not necessary because they were not selected to participate on the

Stations Contract project, nonetheless helped them secure work with other primes and agencies.

3. Small Business Inclusion Goals

SFMTA sets small business goals for every project where there is documented availability of small businesses in the scopes identified for that project. Many small businesses expressed sentiment that without such goal setting, they would not likely be utilized.

4. Race/Gender Neutral Set-Asides

During the Study Period, nine projects were bid as race/gender neutral set-aside projects, either 100% set-aside (5 projects) or as projects with specific scopes therein set aside only for SBEs (4). Examples of the set-aside work were trucking and landscaping services.

Employing these measures, SFMTA was able to meet or exceed its goals for participation of SBEs, but with varying success in the utilization of certified DBEs. Some DBE firms were able to participate on projects with set-asides. One non-DBE-certified Hispanic firm and two non-DBE-certified Asian Pacific Islander firms were able to serve as primes on three set-aside contracts.

5. Other program components

SFMTA imposes prompt payment requirements and actively monitors and enforces them. While anecdotal evidence of incidents or patterns of discrimination were presented to the Study Team, many small firms indicated that several of SFMTA's Contract Compliance Officers were very thorough in investigating and attempting to ameliorate instances of discrimination. Several firms also stated that without the strong program requirements, monitoring and enforcement, they did not believe there would be opportunities for them to participate in SFMTA projects. In testimony and survey responses, there were several complaints about prompt payment, often expressed as a concern that prevented firms from seeking to participate on SFMTA and public works projects in general, rather than specific instances of not being paid in a timely manner by SFMTA. (See Chapter VI, Outreach and Anecdotal Evidence).

D. Contracting policies and practices

SFMTA contracting policies and practices serve to facilitate its procurement activities in a transparent manner. Solicitation and contract documents convey the SFMTA's policies and practices for non-discrimination, monitoring and enforcement, and good faith efforts. These policies are designed to: (1) instill public confidence in the procurement process; (2) ensure fair and equitable treatment for all vendors; (3) ensure maximum open and free competition in the expenditure of public funds; and (4) provide safeguards to maintain a procurement system of quality and integrity. These policies also set forth the procurement methods and establish standards for obtaining goods and services, including construction, professional, and

architectural/engineering services necessary for the operation of SFMTA's transit service. These procedures include steps for the solicitation, award and administration of contracts and purchase orders.³⁶

The SFMTA Contract Compliance Office ensures that SBEs have an equal opportunity to receive and participate in SFMTA contracts. Procedures for the solicitation and award of construction and professional services contracts are designed to ensure that the SFMTA will comply with its obligations under all applicable laws, rules, and regulations, including 49 CFR Part 26.

Businesses proposing for SFMTA FTA-funded contract opportunities are given notice of: (1) requirements of 49 CFR Part 26; (2) SFMTA's nondiscrimination policy; (3) SFMTA's policy of encouraging all firms qualifying under the solicitation to submit bids/proposals; (4) award of a contract is conditioned upon satisfying the requirements of the proposal/bid specification; and (5) requirements applicable to all contracts and businesses.

Before awarding a contract, SFMTA determines that a prospective contractor is responsive to SBE Program requirements.

E. Contract and regulatory compliance and enforcement

The Study Team's assessment found that the Contract Compliance Office implements specific monitoring procedures for FTA-funded contracts to ensure compliance with contractual requirements and compliance with 49 CFR Part 26.³⁷

Recordkeeping. Prime contractors must maintain records of SBE participation in the performance of a contract, including subcontracts with certified SBEs and all materials purchased from certified DBEs, for a period of three years.

Payment reports. Throughout the performance of the contract and at contract closeout, prime contractors are required to submit payments reports that demonstrate their utilization and payment of SBE contractors to meet the SBE participation goals, including evidence that the prime contractor has complied with the prompt payment provisions of the contract. At the conclusion of the contract, the prime contract (including all joint venture partners) must submit a final exit report and declaration with its final progress payment application and have it executed by all SBE joint venture partners and all subconsultants/subcontractors.

DBE participation reporting. On a semi-annual basis, SFMTA is required to submit reports to the FTA on the actual DBE participation achieved in FTA-funded contracts for each federal

³⁶ SFMTA Policies and Procedures Manual For Federally Assisted Procurements, July 2012.

³⁷ Contract Compliance Office Contract Monitoring Procedures, FTA-funded Contracts, Amended June 13, 2012.

fiscal year. ³⁸The Study Team's review of DBE achievement reports found that SFMTA routinely fulfilled this regulatory obligation during the Study Period.

Contract modifications. Prior to the execution of any modification, supplement, or change order that cumulatively increases the amount of the contract, the prime contractor must document how it intends to meet its commitments to listed SBEs if the modification, supplement, or change order is approved by SFMTA.

Site Visits and Certified Payrolls. SFMTA periodically conducts site visits throughout the execution of a contract to ensure that firms listed to meet the SBE goal are actually performing work on the contract. CCO staff members certify in writing that they have reviewed the contracting records and monitored work sites to ensure that work committed to SBEs at contract award or subsequent to contract award is actually performed by the SBEs to which the work was committed. The CCO also periodically reviews certified payroll reports to ensure that firms listed to meet the SBE goal are actually performing work on the contract.

If the prime contractor is deficient in meeting the SBE participation, the prime contractor is given a reasonable amount of time to demonstrate good faith efforts made to meet the goal. If the prime contractor is deficient in meeting the SBE participation goal but fails to demonstrate good faith efforts to meet the goal, appropriate enforcement mechanisms, including, but not limited to, withholding of funds, assessment of penalties, and/or debarment, are utilized.

F. Results of the Assessment

The manner in which contracting policies, practices and processes are designed and implemented are significant factors in ensuring that MBE/WBE/DBE participation is inclusive, fair and nondiscriminatory. The Study Team's assessment is that SFMTA has done a good job implementing and enforcing its procurement policies, procedures and practices and that no barriers to MBE/WBE/DBE participation were found in the agency's policies or processes.

³⁸ October 1 through September 30.

Chapter IX

Findings and Recommendations

A. Findings

The SFMTA marketplace for construction and related goods contracts funded or assisted by the USDOT consists of four Bay Area counties (San Francisco, Alameda, San Mateo, and Santa Clara) and Los Angeles County. SFMTA's marketplace for professional services contracts are the same four Bay Area counties of San Francisco, Alameda, San Mateo, and Santa Clara.

The five counties comprising the market areas for SFMTA construction, professional services and goods and other services have been the subject of disparity studies performed before the SFMTA Study Period (Federal Fiscal Years 2009-Q3 2015) and are in the Congressional record supporting the constitutionality of 49 CFR Part 26.³⁹ Two additional Part 26 disparity studies completed within the SFMTA Study Period also provide relevant evidence: (1) the 2012 Federal Highway Administration (FHWA) Caltrans Disparity Study; and (2) the 2013 Los Angeles County Metropolitan Transportation Authority Disparity Study ("LA Metro 2013 Study") This record, coupled with the substantial evidence reflected in the Study, supports the following findings:

1. Discrimination in the Marketplace

- a. The disparity studies in the Congressional record underlying Part 26 support a finding that "historical and contemporary discrimination adversely impacts all different types of M/W/DBEs throughout the United States, in the construction [and professional services] sector[s], and in other industry segments as well."⁴⁰
- b. Recent disparity studies (2012-2013) concerning the California transportation industry, affirm that the effects of the discriminatory practices identified by Congress continue to be present in California's public and private markets and subindustries within the state's transportation sector.
- c. The study of SFMTA's relevant market places for construction and professional services (San Francisco, Alameda, San Mateo, Santa Clara and Los Angeles Counties) reflects that many of the discriminatory practices identified in the above-referenced statewide disparity studies, such as barriers in accessing credit and capital, are also present in SFMTA's market areas.

³⁹ *Geyer Signal, Inc. v. Minn. DOT* U.S. Dist. LEXIS 43945 (D. Minn. Mar. 31, 2014).

⁴⁰ Dr. Wainwright's Expert Testimony Report at 19-34 in *Geyer Signal, Inc. v. Minn. DOT*, *supra*.

- d. SFMTA has operated a race/gender-neutral SBE program for over eight federal fiscal years (2007-Q3 2015). SFMTA has made good faith race/gender neutral efforts to remedy the effects of the above-mentioned discrimination, with varying degrees of success. Generally during this timeframe, minority and woman-owned firms (MBE/WBEs), including certified DBEs, have participated (and are participating) as prime and subcontractors of services and suppliers of goods. The race/gender-neutral measures SFMTA employs appear to be effective for MBEs in construction and professional services contract categories with some notable exceptions addressed in greater detail below. However, such measures have not proven effective in facilitating the full and equitable participation of WBEs in SFMTA FTA-funded contracts.
- e. WBEs are substantially underutilized on SFMTA FTA-funded contracts. The substantial underrepresentation exists whether WBEs participate as prime contractors or subcontractors in either construction or professional services contract categories, inclusive of goods. Accordingly, the statistical evidence regarding WBEs in the Study supports an inference of discrimination and the implementation of gender-conscious remedial measures.
- f. Statistical, anecdotal and marketplace evidence contained in the Study supports a conclusion that race-neutral measures have not assisted Black American construction contractors to participate fully and equitably in SFMTA federally assisted construction contracts. Accordingly, the statistical evidence regarding Black American construction firms in the record supports an inference of discrimination and the implementation of race-conscious remedial measures.
- g. As discussed in Chapter V, Native American-owned businesses showed substantial disparities on different sets of SFMTA contracts. However, given the small number of Native American-owned businesses in the availability data (i.e., six firms), the Study Team cannot rule out the possibility of chance in the Native American-owned business results. Accordingly, an inference of discrimination against Native American-owned business cannot be drawn based on the available data.
- h. The statistical evidence in the Study suggests that race-neutral methods employed by SFMTA (e.g., robust outreach, SBE participation goals and set-asides of contracts) are effective in assisting some MBE groups (e.g., Asian Pacific Americans and Hispanic Americans) to successfully compete for SFMTA contract opportunities. Other evidence in the record, including the 2012 FHWA Caltrans Study and LA Metro 2013 Study, demonstrates that MBEs as a group continue to face race-based obstacles to their equitable participation in transportation industry markets particularly on small federally

assisted prime contracts (under \$5MM for construction and under \$1MM for professional services).

B. Recommendations

The Study Team recommends that SFMTA consider and adopt the following policy initiatives:

1. Mitigation Measures for Findings of Discrimination in the Marketplace

- a. Implement a WBE element (to include businesses owned by women of all races and ethnicities) to SFMTA's DBE program for construction, professional services and goods and other services contracts. (See discussion in Chapter III.B.). The WBE program needs to have both prime contractor and subcontractor components, including but not limited to (1) robust outreach to WBEs; (2) contract-specific goals focused on woman-owned firm participation; (3) direct matchmaking techniques between WBEs and contract opportunities; and (4) a continuation of bonding and financial assistance measures SFMTA has employed.
- b. Implement its DBE program with an element designed to mitigate the discriminatory practices and their effects on Black American construction contractors. We recommend that SFMTA pay particularly close attention to addressing the obstacles faced by Black American construction contractors. The recommended programmatic measures include (1) robust outreach to Black American construction contractors, (2) contract-specific goals focused on Black American firm participation; (3) direct matchmaking techniques between Black American firms and contract opportunities; and (4) a continuation of bonding and financial assistance measures SFMTA has employed.
- c. In addition to the WBE and Black American program elements recommended above, implement a small contract element within SFMTA's SBE Program that is focused on small construction contracts, defined as under \$5MM, and on small professional services prime contracts, defined as under \$1MM. Engage in robust outreach to SBEs in the SFMTA marketplace, unbundle large contract opportunities to the described small contract thresholds, and utilize SBE set -asides where feasible.
- d. Continue implementation of SFMTA's race- and gender-neutral SBE Program for all federally funded contracts, including SBE set-asides.
- e. Seek a DBE program waiver from the FTA pursuant to Part 26 for implementing the programmatic recommendations.

- f. Continue to review and track the effectiveness of the SBE Program and each of its elements to ensure that DBEs enjoy a level playing field without discrimination as is required by Part 26. Ensure outreach efforts reach Native American firms and determine if any barriers exist to their participation in SFMTA contracts. Implement mitigation measures should race/gender-neutral measures prove ineffective.

2. Additional Race/Gender Neutral Measures

The Study Team recommends the following neutral measures to supplement existing neutral measures in SFMTA's DBE Program:

SFMTA Website. SFMTA could enhance its website to offer a dedicated SBE Program page. In addition to the information currently on the "Selling to SFMTA" page, the new page should include resources and other document, at a minimum, such as:

- SFMTA's SBE Program Plan, including methodology and goals
- A forecast of upcoming opportunities
- A link to 49 CFR Part 26
- Other resources for training and technical assistance
- A link to this Study

Mentor Protégé Program. SFMTA might consider the California Department of Transportation approach of establishing project specific mentor-protégé arrangements to foster partnerships which advance business, learning, and networking opportunities. Diversifying MBE/WBE utilization and increasing the number of DBEs and MBE/WBEs graduating from subcontract work to prime contracting should be a main goal.

Enhanced Outreach

- **Lenders.** Discriminatory practices in the private sector concerning credit, bonding and financing pose serious barriers to the full participation of DBEs in contracting opportunities, including at SFMTA. Due to these challenges, the Study Team recommends aggressive outreach to lenders so they can become more familiar with SFMTA's DBE program, the small businesses participating in the program, and the financial requirements involved to perform SFMTA contracts. This can be done through outreach activities, such as a "meet the lenders" event where SFMTA staff, small businesses and lenders have opportunities to network.
- **Targeted Outreach.** Notably, the Study Team found that during the Study Period, SFMTA's commendable outreach and advertising efforts primarily attracted interest

from white male-owned firms, but little participation by Black American- and woman-owned certified DBE firms. Although SFMTA met its SBE goals every year during the Study Period, SFMTA and prime contractors' outreach activities for new opportunities demonstrated that disparities in utilization compared to availability existed during the Study Period. Therefore, the Study Team recommends that SFMTA enhance its efforts to reach a broader segment of its small business market for contracting opportunities.

- **Certification.** The Study identified many businesses owned by minorities and women that are not DBE certified. The Study Team recommends that SFMTA reach out to these businesses to inform them of certification eligibility requirements, encourage them to apply for DBE certification, and follow-up with them to provide certification assistance.

Appendices

- A. Availability Survey Instruments
- B. Disparity Tables
- C. June 10, 2015 Anecdotal Hearing Transcript
- D. Entry and Advancement in the Construction, Professional Services, and Other Services Industries
- E. Business Ownership in Transit-related Industries in SFMTA's Market Area
- F. Access to Capital for Business Formation and Success
- G. Success of Businesses in Transit-related Industries in SFMTA's Market Area
- H. Study Team Bios

APPENDIX A

APPENDIX A

Availability Survey Instrument

- **Construction**

Hello. My name is *[interviewer name]* from *[firm name]*. We are calling on behalf of the San Francisco Municipal Transportation Agency, or the SFMTA. This is not a sales call. SFMTA is developing a list of companies involved in construction, maintenance, or design work on a wide range of transportation-related projects. Who can I speak with to get the information we need from your firm?

[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 COLLECTED FROM THE SURVEY WILL ADD TO SFMTA'S EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH THE AGENCY]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm that this is *[firm name]*?

1=RIGHT COMPANY – **SKIP TO A1**

2=NOT RIGHT COMPANY

99=REFUSE TO GIVE INFORMATION – **TERMINATE**

Y1. Can you give me any information about *[firm name]*?

1=Yes, same owner doing business under a different name – **SKIP TO Y4**

2=Yes, can give information about named company

3=Company bought/sold/changed ownership – **SKIP TO Y4**

98=No, does not have information – **TERMINATE**

99=Refused to give information – **TERMINATE**

Y3. Can you give me the complete address or city for [firm name]? – SKIP TO Y5

(NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT:

. STREET ADDRESS

. CITY

. STATE

. ZIP)

1=VERBATIM

Y4. And what is the new name of the business that used to be [firm name]?

(ENTER UPDATED NAME)

1=VERBATIM

Y5. Can you give me the name of the owner or manager of the new business?

(ENTER UPDATED NAME)

1=VERBATIM

[IF Y1=2, SKIP TO Y8] Y6. Can I have a telephone number for him/her?

(ENTER UPDATED PHONE)

1=VERBATIM

Y7. Can you give me the complete address or city for [new firm name]?

1=VERBATIM

Y8. Do you work for this new company?

1=YES

2=NO – TERMINATE

Z1. [ONLY ASK IF FIRM IS LOCATED IN LOS ANGELES COUNTY] Now I want to ask you about the locations where your company performs work. Specifically, would your company do work in the San Francisco Bay Area?

(NOTE TO INTERVIEWER: IF ASKED, THE SAN FRANCISCO BAY AREA WOULD INCLUDE THE CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA.)

1=Yes

98=(DON'T KNOW) - TERMINATE

2=No - TERMINATE

99=(REFUSED) - TERMINATE

A1. I want to confirm that your firm does work or provides materials related to

construction, maintenance, or design on transportation-related projects. Is this correct?

(NOTE TO INTERVIEWER – INCLUDES ANY WORK RELATED TO CONSTRUCTION, MAINTENANCE OR DESIGN SUCH AS BUILDING AND PARKING FACILITIES, PAVING AND CONCRETE, TUNNELS, BRIDGES AND ROADS AND OTHER TRANSPORTATION-RELATED PROJECTS. IT ALSO INCLUDES TRUCKING AND HAULING)

(NOTE TO INTERVIEWER - INCLUDES HAVING DONE WORK, TRYING TO SELL THIS WORK, OR PROVIDING MATERIALS)

1=Yes

2=No - **TERMINATE**

A2. Let me confirm that [firm name / new firm name] is a business, as opposed to a non-profit organization, a foundation, or a government office. Is that correct?

1=Yes, a business

2=No, other - **TERMINATE**

A3. Let me also confirm what kind of business this is. The information we have from Dun & Bradstreet indicates that your main line of business is [Work Code description]. Is this correct?

(NOTE TO INTERVIEWER - IF ASKED, DUN & BRADSTREET OR D&B, IS A COMPANY THAT COMPILES BUSINESS INFORMATION THROUGHOUT THE COUNTRY)

1=Yes – **SKIP TO A5**

2=No

98=(DON'T KNOW)

99=(REFUSED)

A4. What would you say is the main line of business at [firm name / new firm name]?

(NOTE TO INTERVIEWER: IF RESPONDENT INDICATES THAT FIRM'S MAIN LINE OF BUSINESS IS "GENERAL CONSTRUCTION" OR GENERAL CONTRACTOR, " PROBE TO FIND OUT IF MAIN LINE OF BUSINESS IS CLOSER TO INDUSTRIAL BUILDING CONSTRUCTION OR HIGHWAY AND ROAD CONSTRUCTION.)

(ENTER VERBATIM RESPONSE)

1=VERBATIM

A5. Is this the sole location for your business, or do you have offices in other locations?

- 1=Sole location
- 2=Have other locations
- 98=(DON'T KNOW)
- 99=(REFUSED)

A8. Is your company a subsidiary or affiliate of another firm?

- 1=Independent – **SKIP TO B1**
- 2=Subsidiary or affiliate of another firm
- 98=(DON'T KNOW) – **SKIP TO B1**
- 99=(REFUSED) – **SKIP TO B1**

A9. What is the name of your parent company?

- 1=ENTER NAME
- 98=(DON'T KNOW)
- 99=(REFUSED)

A9. ENTER NAME OF PARENT COMPANY

- 1=VERBATIM

B1. Next, I have a few questions about your company's role in transportation-related construction, maintenance, or design. During the past five years, has your company submitted a bid or a price quote for any part of a contract for a state or local government agency in California?

- 1=Yes
- 2=No – **SKIP TO B3**
- 98=(DON'T KNOW) – **SKIP TO B3**
- 99=(REFUSED) – **SKIP TO B3**

B2. Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier?

[MULTIPUNCH]

- 1=Prime contractor
- 2=Subcontractor
- 3=Trucker/hauler
- 4=Supplier (or manufacturer)
- 98=(DON'T KNOW)
- 99=(REFUSED)

B3. During the past five years, has your company received an award for work on

any part of a contract for a state or local government agency in California?

1=Yes

2=No – **SKIP TO B5**

98=(DON'T KNOW) – **SKIP TO B5**

99=(REFUSED) – **SKIP TO B5**

B4. Were those awards to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier?

[MULTIPUNCH]

1=Prime contractor

4=Supplier (or manufacturer)

2=Subcontractor

98=(DON'T KNOW)

3=Trucker/hauler

99=(REFUSED)

B5. During the past five years, has your company submitted a bid or a price quote for any part of a contract for a private sector organization in California?

1=Yes

2=No – **SKIP TO B7**

98=(DON'T KNOW) – **SKIP TO B7**

99=(REFUSED) – **SKIP TO B7**

B6. Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier?

[MULTIPUNCH]

1=Prime contractor

4=Supplier (or manufacturer)

2=Subcontractor

98=(DON'T KNOW)

3=Trucker/hauler

99=(REFUSED)

B7. During the past five years, has your company received an award for work on any part of a contract for a private sector organization in California?

1=Yes

2=No – **SKIP TO B10**

98=(DON'T KNOW) – **SKIP TO B10**

99=(REFUSED) – **SKIP TO B10**

B8. Were those awards to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier?

[MULTIPUNCH]

1=Prime contractor	4=Supplier (or manufacturer)
2=Subcontractor	98=(DON'T KNOW)
3=Trucker/hauler	99=(REFUSED)

B10. Please think about future transportation-related work as you answer the following few questions. Is your company qualified and interested in working with SFMTA as a prime contractor?

1=Yes
2=No
98=(DON'T KNOW)
99=(REFUSED)

B12. Is your company qualified and interested in working with SFMTA as a subcontractor, trucker/hauler, or supplier?

1=Yes
2=No
98=(DON'T KNOW)
99=(REFUSED)

D1. About what year was your firm established?

(RECORD FOUR-DIGIT YEAR, e.g., '1977')

9998 = (DON'T KNOW)
9999 = (REFUSED)
1=NUMERIC (1600-2008)

D2. In rough dollar terms, what was the largest transportation-related contract or subcontract your company was awarded in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER - INCLUDES CONTRACTS NOT YET COMPLETE)

(NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY)

1=\$100,000 or less
2=More than \$100,000 to \$500,000
3=More than \$500,000 to \$1 million
4=More than \$1 million to \$2 million
5=More than \$2 million to \$5 million
6=More than \$5 million to \$10 million
7=More than \$10 million to \$20 million

8=More than \$20 million to \$50 million
9=More than \$50 million to \$100 million
10= More than \$100 million to \$200 million
11=\$200 million or greater
97=(NONE)
98=(DON'T KNOW)
99=(REFUSED)

D3. Was that the largest transportation-related contract or subcontract that your company bid on or submitted quotes for in California during the past five years?

1=Yes – **SKIP TO E1**
2=No
98=(DON'T KNOW) – **SKIP TO E1**
99=(REFUSED) – **SKIP TO E1**

D4. What was the largest transportation-related contract or subcontract that your company bid on or submitted quotes for in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER – READ CATEGORIES IF NECESSARY)

1=\$100,000 or less
2=More than \$100,000 to \$500,000
3=More than \$500,000 to \$1 million
4=More than \$1 million to \$2 million
5=More than \$2 million to \$5 million
6=More than \$5 million to \$10 million
7=More than \$10 million to \$20 million

8=More than \$20 million to \$50 million
9=More than \$50 million to \$100 million
10= More than \$100 million to \$200 million
11=\$200 million or greater
97=(NONE)
98=(DON'T KNOW)
99=(REFUSED)

E1. My next questions are about the ownership of the business. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is [*firm name / new firm name*] a woman-owned business?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

E2. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is by Black Americans, Asian Americans, Hispanic Americans, Native Americans, or by another minority group. By this definition, is [*firm name || new firm name*] a minority-owned business?

1=Yes

2=No – **SKIP TO F1**

98=(DON'T KNOW) – **SKIP TO F1**

99=(REFUSED) – **SKIP TO F1**

E3. Would you say that the minority group ownership of your company is mostly by Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Hispanic Americans, Native Americans, or a different minority group?

1=Black-American

2=Asian Pacific American (persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Mariana Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic American (persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race)

4=Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)

5=Subcontinent Asian American (persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka)

6=(OTHER - SPECIFY)

98=(DON'T KNOW)

99=(REFUSED)

E3. OTHER - SPECIFY

1=VERBATIM

F1. Dun & Bradstreet indicates that your company has about *[number]* employees working out of just your location. Is that an accurate estimate of your company's average number of employees over the last three years?

(NOTE TO INTERVIEWER - INCLUDES EMPLOYEES WHO WORK AT THAT LOCATION AND THOSE WHO WORK FROM THAT LOCATION)

1=Yes – **SKIP TO F3**

2=No

98=(DON'T KNOW) – **SKIP TO F3**

99=(REFUSED) – **SKIP TO F3**

F2. About how many employees did you have working out of just your location, on average, over the last three years?

(RECORD NUMBER OF EMPLOYEES)

1=NUMERIC (1-999999999)

F3. Dun & Bradstreet lists the average annual gross revenue of your company, just considering your location, to be *[dollar amount]*. Is that an accurate estimate for your company's average annual gross revenue over the last three years?

1=Yes – **SKIP TO F5**

98=(DON'T KNOW) – **SKIP TO F5**

2=No

99=(REFUSED) – **SKIP TO F5**

F4. Roughly, what was the average annual gross revenue of your company, just considering your location, over the last three years? Would you say . . .

(READ LIST)

1=Less than \$1 Million

6=\$16.6 Million - \$18.5 Million

2=\$1 Million - \$4.5 Million

7=\$18.6 Million - \$22.4 Million

3=\$4.6 Million - \$7 Million

8=\$22.5 Million or more

4=\$7.1 Million - \$12 Million

98= (DON'T KNOW)

5=\$12.1 Million - \$16.5 Million

99= (REFUSED)

F5. [ONLY IF A5 = 2] About how many employees did you have, on average, for all of your locations over the last three years?

1=(ENTER RESPONSE)

98=(DON'T KNOW)

99=(REFUSED)

F6. [ONLY IF A5 = 2] Roughly, what was the average annual gross revenue of your company, for all of your locations over the last three years? Would you say . . .
(READ LIST)

1=Less than \$1 Million

2=\$1 Million - \$4.5 Million

3=\$4.6 Million - \$7 Million

4=\$7.1 Million - \$12 Million

5=\$12.1 Million - \$16.5 Million

6=\$16.6 Million - \$18.5 Million

7=\$18.6 Million - \$22.4 Million

8=\$22.5 Million or more

98= (DON'T KNOW)

99= (REFUSED)

G1. We're interested in whether your company has experienced barriers or difficulties in California associated with starting or expanding a business in your industry or with obtaining work. Do you have any thoughts to share on these topics?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

97=(NOTHING/NONE/NO COMMENTS)

98=(DON'T KNOW)

99=(REFUSED)

G2. Would you be willing to participate in a follow-up interview about any of those issues?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

H1. Just a few last questions. What is your name?

(RECORD FULL NAME)

1=VERBATIM

H2. What is your position at [*firm name / new firm name*]?

1=Receptionist

2=Owner

3=Manager

4=CFO

5=CEO

6=Assistant to Owner/CEO

7=Sales manager

8=Office manager

9=President

10=(OTHER - SPECIFY)

99=(REFUSED)

H2. OTHER - SPECIFY

1=VERBATIM

H3. For purposes of receiving information from SFMTA, is your mailing address [firm address]:

1=Yes – **SKIP TO H5**

2=No

98=(DON'T KNOW)

99=(REFUSED)

H4. What mailing address should they use to get any materials to you?

1=VERBATIM

H5. What fax number could they use to fax any materials to you?

1=NUMERIC (1000000000-9999999999)

H6. What e-mail address could they use to get any materials to you?

1=ENTER E-MAIL

97=(NO EMAIL ADDRESS)

98=(DON'T KNOW)

99=(REFUSED)

(RECORD EMAIL ADDRESS) (VERIFY ADDRESS LETTER BY LETTER: EXAMPLE: 'John@XYZ-firm.COM' SHOULD BE VERIFIED AS: J-O-H-N-at-X-Y-Z-hyphen-F-I-R-M-dot-com)

1=VERBATIM

Thank you very much for your participation. If you have any questions, please contact XXXXXXXXXXXX.

- **Professional Services**

Hello. My name is [interviewer name] from [firm name]. We are calling on behalf of the San Francisco Municipal Transportation Agency, or the SFMTA. This is not a sales call. SFMTA is developing a list of companies involved in construction, maintenance, or design work on a wide range of transportation-related projects. Who can I speak with to get the information we need from your firm?

[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 COLLECTED FROM THE SURVEY WILL ADD TO SFMTA'S EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH THE AGENCY]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm that this is [firm name]?

1=RIGHT COMPANY – **SKIP TO A1**

2=NOT RIGHT COMPANY

99=REFUSE TO GIVE INFORMATION – **TERMINATE**

Y1. Can you give me any information about [firm name]?

1=Yes, same owner doing business under a different name – **SKIP TO Y4**

2=Yes, can give information about named company

3=Company bought/sold/changed ownership – **SKIP TO Y4**

98=No, does not have information – **TERMINATE**

99=Refused to give information – **TERMINATE**

Y3. Can you give me the complete address or city for [firm name]? – **SKIP TO Y5**

(NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT:

. STREET ADDRESS

. CITY

. STATE

. ZIP)

1=VERBATIM

Y4. And what is the new name of the business that used to be [*firm name*]?

(ENTER UPDATED NAME)

1=VERBATIM

Y5. Can you give me the name of the owner or manager of the new business?

(ENTER UPDATED NAME)

1=VERBATIM

[IF Y1=2, SKIP TO Y8] Y6. Can I have a telephone number for him/her?

(ENTER UPDATED PHONE)

1=VERBATIM

Y7. Can you give me the complete address or city for [*new firm name*]?

1=VERBATIM

Y8. Do you work for this new company?

1=YES

2=NO – **TERMINATE**

A1. First, I want to confirm that your firm does work or provides materials related to construction, maintenance, or design on transportation-related projects. Is this correct?

(NOTE TO INTERVIEWER – INCLUDES ANY WORK RELATED TO CONSTRUCTION, MAINTENANCE OR DESIGN SUCH AS BUILDING AND PARKING FACILITIES, PAVING AND CONCRETE, TUNNELS, BRIDGES AND ROADS AND OTHER TRANSPORTATION-RELATED PROJECTS. IT ALSO INCLUDES TRUCKING AND HAULING)

(NOTE TO INTERVIEWER - INCLUDES HAVING DONE WORK, TRYING TO SELL THIS WORK, OR PROVIDING MATERIALS)

1=Yes

2=No - **TERMINATE**

A2. Let me confirm that [*firm name / new firm name*] is a business, as opposed to a non-profit organization, a foundation, or a government office. Is that correct?

1=Yes, a business

2=No, other - **TERMINATE**

B2. Were those qualifications, proposals, or quotes to work as a prime consultant or as a subconsultant?

[MULTIPUNCH]

1=Prime consultant

98=(DON'T KNOW)

2=Subconsultant

99=(REFUSED)

B3. During the past five years, has your company received an award for work on any part of a contract for a state or local government agency in California?

1=Yes

98=(DON'T KNOW) – **SKIP TO B5**

2=No – **SKIP TO B5**

99=(REFUSED) – **SKIP TO B5**

B4. Were those awards to work as a prime consultant or as a subconsultant?

[MULTIPUNCH]

1= Prime consultant

98=(DON'T KNOW)

2= Subconsultant

99=(REFUSED)

B5. During the past five years, has your company submitted a qualifications statement, a proposal, or a quote for any part of a contract for a private sector organization in California?

1=Yes

98=(DON'T KNOW) – **SKIP TO B7**

2=No – **SKIP TO B7**

99=(REFUSED) – **SKIP TO B7**

B6. Were those bids or price quotes to work as a prime consultant or as a subconsultant?

[MULTIPUNCH]

1= Prime consultant

98=(DON'T KNOW)

2= Subconsultant

99=(REFUSED)

B7. During the past five years, has your company received an award for work on any part of a contract for a private sector organization in California?

1=Yes

98=(DON'T KNOW) – **SKIP TO B10**

2=No – **SKIP TO B10**

99=(REFUSED) – **SKIP TO B10**

B8. Were those awards to work as a prime consultant or as a subconsultant?

[MULTIPUNCH]

1= Prime consultant

98=(DON'T KNOW)

2= Subconsultant

99=(REFUSED)

B10. Please think about future transportation-related work as you answer the following few questions. Is your company qualified and interested in working with SFMTA as a prime consultant?

1=Yes

98=(DON'T KNOW)

2=No

99=(REFUSED)

B12. Is your company qualified and interested in working with SFMTA as a subconsultant?

1=Yes

98=(DON'T KNOW)

2=No

99=(REFUSED)

D1. About what year was your firm established?

(RECORD FOUR-DIGIT YEAR, e.g., '1977')

9998 = (DON'T KNOW)

9999 = (REFUSED)

1=NUMERIC (1600-2008)

D2. In rough dollar terms, what was the largest transportation-related contract or subcontract your company was awarded in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER - INCLUDES CONTRACTS NOT YET COMPLETE)

(NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY)

1=\$100,000 or less

8=More than \$20 million to \$50 million

2=More than \$100,000 to \$500,000

9=More than \$50 million to \$100 million

3=More than \$500,000 to \$1 million

10= More than \$100 million to \$200 million

4=More than \$1 million to \$2 million

11=\$200 million or greater

5=More than \$2 million to \$5 million

97=(NONE)

6=More than \$5 million to \$10 million

98=(DON'T KNOW)

7=More than \$10 million to \$20 million

99=(REFUSED)

D3. Was that the largest transportation-related contract or subcontract that your company submitted a qualifications statement, a proposal, or a quote for in California during the past five years?

1=Yes – **SKIP TO E1**

98=(DON'T KNOW) – **SKIP TO E1**

2=No

99=(REFUSED) – **SKIP TO E1**

D4. What was the largest transportation-related contract or subcontract that your company bid on or submitted quotes for in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER – READ CATEGORIES IF NECESSARY)

- | | |
|--|--|
| 1=\$100,000 or less | 8=More than \$20 million to \$50 million |
| 2=More than \$100,000 to \$500,000 | 9=More than \$50 million to \$100 million |
| 3=More than \$500,000 to \$1 million | 10= More than \$100 million to \$200 million |
| 4=More than \$1 million to \$2 million | 11=\$200 million or greater |
| 5=More than \$2 million to \$5 million | 97=(NONE) |
| 6=More than \$5 million to \$10 million | 98=(DON'T KNOW) |
| 7=More than \$10 million to \$20 million | 99=(REFUSED) |

E1. My next questions are about the ownership of the business. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is [firm name / new firm name] a woman-owned business?

- 1=Yes
- 2=No
- 98=(DON'T KNOW)
- 99=(REFUSED)

E2. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is by Black Americans, Asian Americans, Hispanic Americans, Native Americans, or by another minority group. By this definition, is [firm name || new firm name] a minority-owned business?

- 1=Yes
- 2=No – **SKIP TO F1**
- 98=(DON'T KNOW) – **SKIP TO F1**
- 99=(REFUSED) – **SKIP TO F1**

E3. Would you say that the minority group ownership of your company is mostly by Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Hispanic Americans, Native Americans, or a different minority group?

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, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic American (persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race)

4=Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)

5=Subcontinent Asian American (persons whose Origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka)

6=(OTHER - SPECIFY)

98=(DON'T KNOW)

99=(REFUSED)

E3. OTHER - SPECIFY

1=VERBATIM

F1. Dun & Bradstreet indicates that your company has about [number] employees working out of just your location. Is that an accurate estimate of your company's average number of employees over the last three years?

(NOTE TO INTERVIEWER - INCLUDES EMPLOYEES WHO WORK AT THAT LOCATION AND THOSE WHO WORK FROM THAT LOCATION)

1=Yes – **SKIP TO F3**

2=No

98=(DON'T KNOW) – **SKIP TO F3**

99=(REFUSED) – **SKIP TO F3**

F2. About how many employees did you have working out of just your location, on average, over the last three years?

(RECORD NUMBER OF EMPLOYEES)

1=NUMERIC (1-999999999)

F3. Dun & Bradstreet lists the average annual gross revenue of your company, just considering your location, to be [dollar amount]. Is that an accurate estimate for your company's average annual gross revenue over the last three years?

1=Yes – **SKIP TO F5**

98=(DON'T KNOW) – **SKIP TO F5**

2=No

99=(REFUSED) – **SKIP TO F5**

F4. Roughly, what was the average annual gross revenue of your company, just considering your location, over the last three years? Would you say . . .
(READ LIST)

1=Less than \$1 Million

6=\$16.6 Million - \$18.5 Million

2=\$1 Million - \$4.5 Million

7=\$18.6 Million - \$22.4 Million

3=\$4.6 Million - \$7 Million

8=\$22.5 Million or more

4=\$7.1 Million - \$12 Million

98= (DON'T KNOW)

5=\$12.1 Million - \$16.5 Million

99= (REFUSED)

F5. [ONLY IF A5 = 2] About how many employees did you have, on average, for all of your locations over the last three years?

1=(ENTER RESPONSE)

98=(DON'T KNOW)

99=(REFUSED)

F6. [ONLY IF A5 = 2] Roughly, what was the average annual gross revenue of your company, for all of your locations over the last three years? Would you say . . .
(READ LIST)

1=Less than \$1 Million

6=\$16.6 Million - \$18.5 Million

2=\$1 Million - \$4.5 Million

7=\$18.6 Million - \$22.4 Million

3=\$4.6 Million - \$7 Million

8=\$22.5 Million or more

4=\$7.1 Million - \$12 Million

98= (DON'T KNOW)

5=\$12.1 Million - \$16.5 Million

99= (REFUSED)

G1. We're interested in whether your company has experienced barriers or difficulties in California associated with starting or expanding a business in your industry or with obtaining work. Do you have any thoughts to share on these topics?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

97=(NOTHING/NONE/NO COMMENTS)

98=(DON'T KNOW)

99=(REFUSED)

G2. Would you be willing to participate in a follow-up interview about any of those issues?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

H1. Just a few last questions. What is your name?

(RECORD FULL NAME)

1=VERBATIM

H2. What is your position at [*firm name / new firm name*]?

1=Receptionist

7=Sales manager

2=Owner

8=Office manager

3=Manager

9=President

4=CFO

10=(OTHER - SPECIFY)

5=CEO

99=(REFUSED)

6=Assistant to Owner/CEO

H2. OTHER - SPECIFY

1=VERBATIM

H3. For purposes of receiving information from SFMTA, is your mailing address [*firm address*]:

1=Yes – **SKIP TO H5**

2=No

98=(DON'T KNOW)

99=(REFUSED)

H4. What mailing address should they use to get any materials to you?

1=VERBATIM

H5. What fax number could they use to fax any materials to you?

1=NUMERIC (1000000000-9999999999)

H6. What e-mail address could they use to get any materials to you?

1=ENTER E-MAIL

97=(NO EMAIL ADDRESS)

98=(DON'T KNOW)

99=(REFUSED)

*(RECORD EMAIL ADDRESS) (VERIFY ADDRESS LETTER BY LETTER: EXAMPLE:
'John@CRI-RESEARCH.COM' SHOULD BE VERIFIED AS: J-O-H-N-at-C-R-I-
hyphen-R-E-S-E-A-R-C-H-dot-com)*

1=VERBATIM

Thank you very much for your participation. If you have any questions, please contact XXXXXXXXXXXX.

- **Goods and Services**

Hello. My name is *[interviewer name]* from *[firm name]*. We are calling on behalf of the San Francisco Municipal Transportation Agency, or the SFMTA. This is not a sales call. SFMTA is developing a list of companies involved in providing goods and services on a wide range of transportation-related projects. Who can I speak with to get the information we need from your firm?

[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 COLLECTED FROM THE SURVEY WILL ADD TO SFMTA'S EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH THE AGENCY]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm that this is *[firm name]*?

1=RIGHT COMPANY – **SKIP TO A1**

2=NOT RIGHT COMPANY

99=REFUSE TO GIVE INFORMATION – **TERMINATE**

Y1. Can you give me any information about *[firm name]*?

1=Yes, same owner doing business under a different name – **SKIP TO Y4**

2=Yes, can give information about named company

3=Company bought/sold/changed ownership – **SKIP TO Y4**

98=No, does not have information – **TERMINATE**

99=Refused to give information – **TERMINATE**

Y3. Can you give me the complete address or city for *[firm name]*? – **SKIP TO Y5**

(NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT:

. STREET ADDRESS

. CITY

. STATE

. ZIP)

1=VERBATIM

Y4. And what is the new name of the business that used to be [*firm name*]?

(ENTER UPDATED NAME)

1=VERBATIM

Y5. Can you give me the name of the owner or manager of the new business?

(ENTER UPDATED NAME)

1=VERBATIM

[IF Y1=2, SKIP TO Y8] Y6. Can I have a telephone number for him/her?

(ENTER UPDATED PHONE)

1=VERBATIM

Y7. Can you give me the complete address or city for [*new firm name*]?

1=VERBATIM

Y8. Do you work for this new company?

1=YES

2=NO – TERMINATE

A2. Let me confirm that [*firm name / new firm name*] is a business, as opposed to a non-profit organization, a foundation, or a government office. Is that correct?

1=Yes, a business

2=No, other - TERMINATE

A3. Let me also confirm what kind of business this is. The information we have from Dun & Bradstreet indicates that your main line of business is [*SIC Code description*]. Is this correct?

(NOTE TO INTERVIEWER - IF ASKED, DUN & BRADSTREET OR D&B, IS A COMPANY THAT COMPILES BUSINESS INFORMATION THROUGHOUT THE COUNTRY)

1=Yes – SKIP TO A5

98=(DON'T KNOW)

2=No

99=(REFUSED)

A4. What would you say is the main line of business at [*firm name / new firm name*]?

(ENTER VERBATIM RESPONSE)

1=VERBATIM

A5. Is this the sole location for your business, or do you have offices in other locations?

- 1=Sole location
- 2=Have other locations
- 98=(DON'T KNOW)
- 99=(REFUSED)

A8. Is your company a subsidiary or affiliate of another firm?

- 1=Independent – **SKIP TO B1**
- 2=Subsidiary or affiliate of another firm
- 98=(DON'T KNOW) – **SKIP TO B1**
- 99=(REFUSED) – **SKIP TO B1**

A9. What is the name of your parent company?

- 1=ENTER NAME
- 98=(DON'T KNOW)
- 99=(REFUSED)

A9. ENTER NAME OF PARENT COMPANY

- 1=VERBATIM

B1. Next, I have a few questions about your company's role in transportation-related projects. During the past five years, has your company submitted a bid or a price quote to sell or provide goods or services to a state or local government agency in California?

- 1=Yes
- 2=No – **SKIP TO B3**
- 98=(DON'T KNOW) – **SKIP TO B3**
- 99=(REFUSED) – **SKIP TO B3**

B3. During the past five years, has your company actually sold or provided any goods or services to a state or local government agency in California?

- 1=Yes
- 2=No – **SKIP TO B5**
- 98=(DON'T KNOW) – **SKIP TO B5**
- 99=(REFUSED) – **SKIP TO B5**

B5. During the past five years, has your company submitted a bid or a price quote to sell or provide goods or services to a private sector organization in California?

1=Yes

98=(DON'T KNOW) – **SKIP TO B7**

2=No – **SKIP TO B7**

99=(REFUSED) – **SKIP TO B7**

B7. During the past five years, has your company actually sold or provided any goods or services to a private sector organization in California?

1=Yes

98=(DON'T KNOW) – **SKIP TO B10**

2=No – **SKIP TO B10**

99=(REFUSED) – **SKIP TO B10**

B10. Please think about future transportation-related work as you answer the following few questions. Is your company qualified and interested in selling or providing goods or services to SFMTA?

1=Yes

98=(DON'T KNOW)

2=No

99=(REFUSED)

D1. About what year was your firm established?

(RECORD FOUR-DIGIT YEAR, e.g., '1977')

9998 = (DON'T KNOW)

9999 = (REFUSED)

1=NUMERIC (1600-2008)

D2. In rough dollar terms, what was the largest contract or order your company was awarded in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER - INCLUDES CONTRACTS NOT YET COMPLETE)

(NOTE TO INTERVIEWER - READ CATEGORIES IF NECESSARY)

1=\$100,000 or less

8=More than \$20 million to \$50 million

2=More than \$100,000 to \$500,000

9=More than \$50 million to \$100 million

3=More than \$500,000 to \$1 million

10= More than \$100 million to \$200 million

4=More than \$1 million to \$2 million

11=\$200 million or greater

5=More than \$2 million to \$5 million

97=(NONE)

6=More than \$5 million to \$10 million

98=(DON'T KNOW)

7=More than \$10 million to \$20 million

99=(REFUSED)

D3. Was that the largest contract or order that your company bid on or submitted quotes for in California during the past five years?

1=Yes – **SKIP TO E1**

2=No

98=(DON'T KNOW) – **SKIP TO E1**

99=(REFUSED) – **SKIP TO E1**

D4. What was the largest contract or order that your company bid on or submitted quotes for in California during the past five years?

(NOTE TO INTERVIEWER – IF ASKED, INCLUDES PRIVATE SECTOR AND PUBLIC SECTOR)

(NOTE TO INTERVIEWER – READ CATEGORIES IF NECESSARY)

- | | |
|--|--|
| 1=\$100,000 or less | 8=More than \$20 million to \$50 million |
| 2=More than \$100,000 to \$500,000 | 9=More than \$50 million to \$100 million |
| 3=More than \$500,000 to \$1 million | 10= More than \$100 million to \$200 million |
| 4=More than \$1 million to \$2 million | 11=\$200 million or greater |
| 5=More than \$2 million to \$5 million | 97=(NONE) |
| 6=More than \$5 million to \$10 million | 98=(DON'T KNOW) |
| 7=More than \$10 million to \$20 million | 99=(REFUSED) |

E1. My next questions are about the ownership of the business. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is [*firm name / new firm name*] a woman-owned business?

1=Yes

98=(DON'T KNOW)

2=No

99=(REFUSED)

E2. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is by Black Americans, Asian Americans, Hispanic Americans, Native Americans, or by another minority group. By this definition, is [*firm name || new firm name*] a minority-owned business?

1=Yes

2=No – **SKIP TO F1**

98=(DON'T KNOW) – **SKIP TO F1**

99=(REFUSED) – **SKIP TO F1**

E3. Would you say that the minority group ownership of your company is mostly by Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Hispanic Americans, Native Americans, or a different minority group?

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, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong)

3=Hispanic American (persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race)

4=Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)

5=Subcontinent Asian American (persons whose Origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka)

6=(OTHER - SPECIFY)

98=(DON'T KNOW)

99=(REFUSED)

E3. OTHER - SPECIFY

1=VERBATIM

F1. Dun & Bradstreet indicates that your company has about [number] employees working out of just your location. Is that an accurate estimate of your company's average number of employees over the last three years?

(NOTE TO INTERVIEWER - INCLUDES EMPLOYEES WHO WORK AT THAT LOCATION AND THOSE WHO WORK FROM THAT LOCATION)

1=Yes – **SKIP TO F3**

2=No

98=(DON'T KNOW) – **SKIP TO F3**

99=(REFUSED) – **SKIP TO F3**

F2. About how many employees did you have working out of just your location, on average, over the last three years?

(RECORD NUMBER OF EMPLOYEES)

1=NUMERIC (1-999999999)

F3. Dun & Bradstreet lists the average annual gross revenue of your company, just considering your location, to be [dollar amount]. Is that an accurate estimate for your company's average annual gross revenue over the last three years?

1=Yes – **SKIP TO F5**

98=(DON'T KNOW) – **SKIP TO F5**

2=No

99=(REFUSED) – **SKIP TO F5**

F4. Roughly, what was the average annual gross revenue of your company, just considering your location, over the last three years? Would you say . . .
(READ LIST)

1=Less than \$1 Million

6=\$16.6 Million - \$18.5 Million

2=\$1 Million - \$4.5 Million

7=\$18.6 Million - \$22.4 Million

3=\$4.6 Million - \$7 Million

8=\$22.5 Million or more

4=\$7.1 Million - \$12 Million

98= (DON'T KNOW)

5=\$12.1 Million - \$16.5 Million

99= (REFUSED)

F5. [ONLY IF A5 = 2] About how many employees did you have, on average, for all of your locations over the last three years?

1=(ENTER RESPONSE)

98=(DON'T KNOW)

99=(REFUSED)

F6. [ONLY IF A5 = 2] Roughly, what was the average annual gross revenue of your company, for all of your locations over the last three years? Would you say . . .
(READ LIST)

1=Less than \$1 Million

6=\$16.6 Million - \$18.5 Million

2=\$1 Million - \$4.5 Million

7=\$18.6 Million - \$22.4 Million

3=\$4.6 Million - \$7 Million

8=\$22.5 Million or more

4=\$7.1 Million - \$12 Million

98= (DON'T KNOW)

5=\$12.1 Million - \$16.5 Million

99= (REFUSED)

G1. We're interested in whether your company has experienced barriers or difficulties in California associated with starting or expanding a business in your industry or with obtaining work. Do you have any thoughts to share on these topics?

1=VERBATIM (PROBE FOR COMPLETE THOUGHTS)

98=(DON'T KNOW)

97=(NOTHING/NONE/NO COMMENTS)

99=(REFUSED)

G2. Would you be willing to participate in a follow-up interview about any of those issues?

1=Yes

2=No

98=(DON'T KNOW)

99=(REFUSED)

H1. Just a few last questions. What is your name?

(RECORD FULL NAME)

1=VERBATIM

H2. What is your position at [*firm name / new firm name*]?

1=Receptionist

7=Sales manager

2=Owner

8=Office manager

3=Manager

9=President

4=CFO

10=(OTHER - SPECIFY)

5=CEO

99=(REFUSED)

6=Assistant to Owner/CEO

H2. OTHER - SPECIFY

1=VERBATIM

H3. For purposes of receiving information from SFMTA, is your mailing address [*firm address*]:

1=Yes – **SKIP TO H5**

2=No

98=(DON'T KNOW)

99=(REFUSED)

H4. What mailing address should they use to get any materials to you?

1=VERBATIM

H5. What fax number could they use to fax any materials to you?

1=NUMERIC (1000000000-9999999999)

H6. What e-mail address could they use to get any materials to you?

1=ENTER E-MAIL

97=(NO EMAIL ADDRESS)

98=(DON'T KNOW)

99=(REFUSED)

*(RECORD EMAIL ADDRESS) (VERIFY ADDRESS LETTER BY LETTER: EXAMPLE:
'John@CRI-RESEARCH.COM' SHOULD BE VERIFIED AS: J-O-H-N-at-C-R-I-
hyphen-R-E-S-E-A-R-C-H-dot-com)*

1=VERBATIM

Thank you very much for your participation. If you have any questions, please contact XXXXXXXXXXXX.

APPENDIX B

Figure B-1

Figure B- :	2	3	4	5	6	7	8	9	10	11
Contract role										
Prime Contractors, Subcontractors and Suppliers	X			X	X			X	X	X
Prime Contractors		X				X	X			
Subcontractors and Suppliers			X							
Time Period										
2009-2013	X	X	X			X	X	X	X	X
2009-2011				X						
2012-2013					X					
Subindustry										
All	X	X	X	X	X	X	X			X
Construction								X		
Professional services									X	
Contract size										
All	X	X	X	X	X			X	X	X
Small contracts						X				
Large contracts							X			
Components of DBE goal										
Analysis of Potential DBEs										X

Figure B-2.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors, Subcontractors and Suppliers

Contract Size: All

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	656	\$1,804,131	\$1,804,131				
(2) MBE/WBE	297	\$330,979	\$330,979	18.3	17.6	0.8	104.5
(3) WBE	50	\$44,931	\$44,931	2.5	5.0	-2.5	50.1
(4) MBE	247	\$286,048	\$286,048	15.9	12.6	3.3	125.9
(5) Black American-owned	51	\$36,221	\$36,668	2.0	1.8	0.2	110.5
(6) Asian-Pacific American-owned	108	\$136,266	\$137,947	7.6	3.9	3.8	197.3
(7) Subcontinent Asian American-owned	13	\$11,038	\$11,175	0.6	0.2	0.5	200+
(8) Hispanic American-owned	68	\$99,037	\$100,259	5.6	6.7	-1.1	83.0
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	7	\$3,486					
(11) DBE-certified	181	\$244,237	\$244,237	13.5			
(12) Woman-owned DBE	19	\$22,010	\$22,010	1.2			
(13) Minority-owned DBE	162	\$222,227	\$222,227	12.3			
(14) Black American-owned DBE	38	\$26,409	\$26,409	1.5			
(15) Asian-Pacific American-owned DBE	70	\$119,969	\$119,969	6.6			
(16) Subcontinent Asian American-owned DBE	10	\$5,086	\$5,086	0.3			
(17) Hispanic American-owned DBE	44	\$70,763	\$70,763	3.9			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-3.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors

Contract Size: All

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column e, row 1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	194	\$1,004,946	\$1,004,946				
(2) MBE/WBE	43	\$111,797	\$111,797	11.1	9.9	1.2	112.2
(3) WBE	6	\$11,134	\$11,134	1.1	2.0	-0.9	55.9
(4) MBE	37	\$100,663	\$100,663	10.0	7.9	2.1	126.2
(5) Black American-owned	1	\$50	\$50	0.0	0.8	-0.8	0.6
(6) Asian-Pacific American-owned	24	\$70,309	\$70,309	7.0	4.3	2.7	161.7
(7) Subcontinent Asian American-owned	3	\$7,002	\$7,002	0.7	0.1	0.6	200+
(8) Hispanic American-owned	9	\$23,301	\$23,301	2.3	2.7	-0.4	85.8
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	0	\$0					
(11) DBE-certified	16	\$67,358	\$67,358	6.7			
(12) Woman-owned DBE	3	\$603	\$603	0.1			
(13) Minority-owned DBE	13	\$66,755	\$66,755	6.6			
(14) Black American-owned DBE	1	\$50	\$50	0.0			
(15) Asian-Pacific American-owned DBE	10	\$64,758	\$64,758	6.4			
(16) Subcontinent Asian American-owned DBE	1	\$1,200	\$1,200	0.1			
(17) Hispanic American-owned DBE	1	\$746	\$746	0.1			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-4.

Type: Construction, Professional Services, and Goods and Other Services

Role: Subcontractors and Suppliers

Contract Size: All

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	462	\$799,185	\$799,185				
(2) MBE/WBE	254	\$219,182	\$219,182	27.4	27.2	0.3	100.9
(3) WBE	44	\$33,797	\$33,797	4.2	8.7	-4.5	48.5
(4) MBE	210	\$185,385	\$185,385	23.2	18.5	4.7	125.7
(5) Black American-owned	50	\$36,170	\$36,863	4.6	3.2	1.5	146.1
(6) Asian-Pacific American-owned	84	\$65,957	\$67,221	8.4	3.3	5.1	200+
(7) Subcontinent Asian American-owned	10	\$4,036	\$4,113	0.5	0.2	0.3	200+
(8) Hispanic American-owned	59	\$75,736	\$77,187	9.7	11.7	-2.1	82.4
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	7	\$3,486					
(11) DBE-certified	165	\$176,879	\$176,879	22.1			
(12) Woman-owned DBE	16	\$21,407	\$21,407	2.7			
(13) Minority-owned DBE	149	\$155,472	\$155,472	19.5			
(14) Black American-owned DBE	37	\$26,358	\$26,358	3.3			
(15) Asian-Pacific American-owned DBE	60	\$55,211	\$55,211	6.9			
(16) Subcontinent Asian American-owned DBE	9	\$3,886	\$3,886	0.5			
(17) Hispanic American-owned DBE	43	\$70,017	\$70,017	8.8			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-5.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors, Subcontractors and Suppliers

Contact Size: All

Period: FFY 2009 through FFY 2011

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	320	\$657,210	\$657,210				
(2) MBE/WBE	180	\$166,833	\$166,833	25.4	17.6	7.8	144.2
(3) WBE	28	\$14,537	\$14,537	2.2	3.4	-1.2	64.9
(4) MBE	152	\$152,296	\$152,296	23.2	14.2	9.0	163.3
(5) Black American-owned	35	\$16,237	\$16,505	2.5	1.7	0.8	144.3
(6) Asian-Pacific American-owned	71	\$105,460	\$107,203	16.3	6.8	9.6	200+
(7) Subcontinent Asian American-owned	9	\$4,357	\$4,429	0.7	0.2	0.4	200+
(8) Hispanic American-owned	32	\$23,766	\$24,159	3.7	5.5	-1.8	67.4
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	5	\$2,476					
(11) DBE-certified	111	\$120,231	\$120,231	18.3			
(12) Woman-owned DBE	8	\$3,828	\$3,828	0.6			
(13) Minority-owned DBE	103	\$116,403	\$116,403	17.7			
(14) Black American-owned DBE	25	\$6,789	\$6,789	1.0			
(15) Asian-Pacific American-owned DBE	49	\$98,478	\$98,478	15.0			
(16) Subcontinent Asian American-owned DBE	7	\$4,186	\$4,186	0.6			
(17) Hispanic American-owned DBE	22	\$6,950	\$6,950	1.1			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-6.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors, Subcontractors and Suppliers

Contract Size: All

Period: FFY 2012 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	336	\$1,146,921	\$1,146,921				
(2) MBE/WBE	117	\$164,146	\$164,146	14.3	17.5	-3.2	81.6
(3) WBE	22	\$30,394	\$30,394	2.7	5.9	-3.2	45.2
(4) MBE	95	\$133,752	\$133,752	11.7	11.7	0.0	99.9
(5) Black American-owned	16	\$19,984	\$20,136	1.8	1.9	-0.1	92.6
(6) Asian-Pacific American-owned	37	\$30,806	\$31,040	2.7	2.2	0.5	121.5
(7) Subcontinent Asian American-owned	4	\$6,681	\$6,732	0.6	0.1	0.5	200+
(8) Hispanic American-owned	36	\$75,271	\$75,844	6.6	7.4	-0.8	89.2
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	2	\$1,010					
(11) DBE-certified	70	\$124,006	\$124,006	10.8			
(12) Woman-owned DBE	11	\$18,182	\$18,182	1.6			
(13) Minority-owned DBE	59	\$105,823	\$105,823	9.2			
(14) Black American-owned DBE	13	\$19,619	\$19,619	1.7			
(15) Asian-Pacific American-owned DBE	21	\$21,491	\$21,491	1.9			
(16) Subcontinent Asian American-owned DBE	3	\$900	\$900	0.1			
(17) Hispanic American-owned DBE	22	\$63,813	\$63,813	5.6			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-7.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors

Contract Size: Small (under \$5 million for Construction, under \$1 million for Professional Services)

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	138	\$43,066	\$43,066				
(2) MBE/WBE	27	\$8,482	\$8,482	19.7	38.2	-18.5	51.5
(3) WBE	5	\$852	\$852	2.0	18.2	-16.2	10.9
(4) MBE	22	\$7,630	\$7,630	17.7	20.0	-2.3	88.6
(5) Black American-owned	1	\$50	\$50	0.1	3.5	-3.4	3.4
(6) Asian-Pacific American-owned	15	\$3,940	\$3,940	9.1	7.3	1.8	125.2
(7) Subcontinent Asian American-owned	1	\$21	\$21	0.0	0.5	-0.4	10.1
(8) Hispanic American-owned	5	\$3,618	\$3,618	8.4	8.6	-0.2	97.3
(9) Native American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(10) Unknown MBE	0	\$0					
(11) DBE-certified	7	\$2,639	\$2,639	6.1			
(12) Woman-owned DBE	3	\$603	\$603	1.4			
(13) Minority-owned DBE	4	\$2,036	\$2,036	4.7			
(14) Black American-owned DBE	1	\$50	\$50	0.1			
(15) Asian-Pacific American-owned DBE	2	\$1,239	\$1,239	2.9			
(16) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(17) Hispanic American-owned DBE	1	\$746	\$746	1.7			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-8.

Type: Construction, Professional Services, and Goods and Other Services

Role: Prime Contractors

Contract Size: Large (\$5 million and over for Construction, \$1 million and over for Professional Services)

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	56	\$961,880	\$961,880				
(2) MBE/WBE	16	\$103,315	\$103,315	10.7	8.7	2.1	124.2
(3) WBE	1	\$10,282	\$10,282	1.1	1.3	-0.2	85.1
(4) MBE	15	\$93,033	\$93,033	9.7	7.4	2.3	130.8
(5) Black American-owned	0	\$0	\$0	0.0	0.7	-0.7	0.0
(6) Asian-Pacific American-owned	9	\$66,369	\$66,369	6.9	4.2	2.7	164.6
(7) Subcontinent Asian American-owned	2	\$6,981	\$6,981	0.7	0.1	0.6	200+
(8) Hispanic American-owned	4	\$19,683	\$19,683	2.0	2.4	-0.4	83.9
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	100.0
(10) Unknown MBE	0	\$0					
(11) DBE-certified	9	\$64,719	\$64,719	6.7			
(12) Woman-owned DBE	0	\$0	\$0	0.0			
(13) Minority-owned DBE	9	\$64,719	\$64,719	6.7			
(14) Black American-owned DBE	0	\$0	\$0	0.0			
(15) Asian-Pacific American-owned DBE	8	\$63,519	\$63,519	6.6			
(16) Subcontinent Asian American-owned DBE	1	\$1,200	\$1,200	0.1			
(17) Hispanic American-owned DBE	0	\$0	\$0	0.0			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-9.

Type: Construction

Role: Prime Contractors, Subcontractors and Suppliers

Contract Size: All

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	401	\$1,434,186	\$1,434,186				
(2) MBE/WBE	153	\$217,270	\$217,270	15.1	15.9	-0.8	95.1
(3) WBE	28	\$40,493	\$40,493	2.8	4.8	-2.0	58.8
(4) MBE	125	\$176,777	\$176,777	12.3	11.1	1.2	110.8
(5) Black American-owned	13	\$13,740	\$13,980	1.0	1.5	-0.5	64.3
(6) Asian-Pacific American-owned	52	\$77,705	\$79,062	5.5	2.5	3.0	200+
(7) Subcontinent Asian American-owned	0	\$0	\$0	0.0	0.1	-0.1	0.0
(8) Hispanic American-owned	54	\$82,298	\$83,735	5.8	7.0	-1.2	83.2
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	6	\$3,033					
(11) DBE-certified	86	\$167,723	\$167,723	11.7			
(12) Woman-owned DBE	12	\$18,912	\$18,912	1.3			
(13) Minority-owned DBE	74	\$148,810	\$148,810	10.4			
(14) Black American-owned DBE	9	\$13,450	\$13,450	0.9			
(15) Asian-Pacific American-owned DBE	30	\$68,811	\$68,811	4.8			
(16) Subcontinent Asian American-owned DBE	0	\$0	\$0	0.0			
(17) Hispanic American-owned DBE	35	\$66,549	\$66,549	4.6			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-10.

Type: Professional Services

Role: Prime Contractors, Subcontractors and Suppliers

Contract Size: All

Period: FFY 2009 through Q3 FFY 2015

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	255	\$369,945	\$369,945				
(2) MBE/WBE	144	\$113,709	\$113,709	30.7	23.9	6.8	128.5
(3) WBE	22	\$4,438	\$4,438	1.2	5.6	-4.4	21.3
(4) MBE	122	\$109,271	\$109,271	29.5	18.3	11.2	161.4
(5) Black American-owned	38	\$22,480	\$22,574	6.1	3.1	3.0	196.9
(6) Asian-Pacific American-owned	56	\$58,560	\$58,804	15.9	9.2	6.7	173.4
(7) Subcontinent Asian American-owned	13	\$11,038	\$11,084	3.0	0.6	2.4	200+
(8) Hispanic American-owned	14	\$16,739	\$16,808	4.5	5.5	-0.9	83.2
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	1	\$453					
(11) DBE-certified	95	\$76,514	\$76,514	20.7			
(12) Woman-owned DBE	7	\$3,098	\$3,098	0.8			
(13) Minority-owned DBE	88	\$73,417	\$73,417	19.8			
(14) Black American-owned DBE	29	\$12,958	\$12,958	3.5			
(15) Asian-Pacific American-owned DBE	40	\$51,158	\$51,158	13.8			
(16) Subcontinent Asian American-owned DBE	10	\$5,086	\$5,086	1.4			
(17) Hispanic American-owned DBE	9	\$4,214	\$4,214	1.1			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

Figure B-11.

Type: Construction, Professional Services, and Goods and Other Services
 Role: Prime Contractors, Subcontractors and Suppliers
 Contract Size: All
 Period: FFY 2009 through Q3 FFY 2015

Analysis of Potential DBEs

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	656	\$1,804,131	\$1,804,131				
(2) MBE/WBE	297	\$330,979	\$330,979	18.3	16.4	1.9	111.7
(3) WBE	50	\$44,931	\$44,931	2.5	5.0	-2.5	50.1
(4) MBE	247	\$286,048	\$286,048	15.9	11.5	4.4	138.5
(5) Black American-owned	51	\$36,221	\$36,668	2.0	1.8	0.2	110.5
(6) Asian-Pacific American-owned	108	\$136,266	\$137,947	7.6	3.7	3.9	200+
(7) Subcontinent Asian American-owned	13	\$11,038	\$11,175	0.6	0.0	0.6	200+
(8) Hispanic American-owned	68	\$99,037	\$100,259	5.6	5.8	-0.2	95.7
(9) Native American-owned	0	\$0	\$0	0.0	0.0	0.0	0.0
(10) Unknown MBE	7	\$3,486					
(11) DBE-certified	181	\$244,237	\$244,237	13.5			
(12) Woman-owned DBE	19	\$22,010	\$22,010	1.2			
(13) Minority-owned DBE	162	\$222,227	\$222,227	12.3			
(14) Black American-owned DBE	38	\$26,409	\$26,409	1.5			
(15) Asian-Pacific American-owned DBE	70	\$119,969	\$119,969	6.6			
(16) Subcontinent Asian American-owned DBE	10	\$5,086	\$5,086	0.3			
(17) Hispanic American-owned DBE	44	\$70,763	\$70,763	3.9			
(18) Native American-owned DBE	0	\$0	\$0	0.0			
(19) Unknown DBE-MBE	0	\$0	\$0	0.0			
(20) White male-owned DBE	0	\$0					
(21) Unknown DBE	0	\$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white woman-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of Black American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: BBC Research & Consulting Disparity Analysis.

APPENDIX C

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY
STAKEHOLDER ANECDOTAL
EVIDENCE GATHERING HEARING
DBE AVAILABILITY AND UTILIZATION STUDY

JUNE 10, 2015

at
SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
One South Van Ness Avenue, Second Floor
Atrium Conference Room
San Francisco, California

Pages 1 - 84

Reported by:
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(Meeting called to order at 2:51 p.m.)
(Off-the-record presentation.)

MS. ROSALES: Stella Becerra?

STELLA BECERRA: Stella Becerra, last name B-e-c-e-r-r-a. I represent Mission Hiring Home. I wanted to come in to speak to you about our services. We offer employment, referral and placement services for San Francisco residents, and we work with folks in the hospitality, construction, construction admin, professional service. We run construction programs as well as construction admin and professional services programs to serve our residents on projects within San Francisco.

SFMTA's project is a very important project. We were able to place one candidate back in, I want to say, five years ago from one of our construction admin programs, and I was able to place one more person recently. And with opportunities that are available we should be able to place more people. The process could use a little bit more -- it could be better.

We had a lot of challenges in the beginning and it was difficult to refer folks to those admin and professional service positions. The people that go through our programs are very qualified. We were able to place them with Department of Homeland Security,

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A P P E A R A N C E S

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Glad Iron, Webcor, we've even hired some folks, so they're very qualified. I would like to be able to refer and place more people without going through too many hoops. There's a lot of delay. And working on a process would definitely help us.

In regards to construction, the hard trades, we work through the City Build program OEWD to place folks. They have the placement component for that, but for construction administration and professional services, we do that on our own. We have the support of the Construction Industry Advisory Counsel. We work with a lot of employers, educators, City College, so we do offer a lot. And we want to make sure that we give our residents the opportunity to get placed on these projects. Our clientele are very diverse from different socio-economic backgrounds and cultures, ethnicities, so that's one big concern for us.

Also one last thing, Mission Hiring Hall has applied for multiple proposals and for construction administration and professional services. We're the premiere program for that and we haven't received a follow-up for that on our status. We want to know if we can get a follow-up. We really want to participate in these opportunities for our community. So I'm here to help connect, to bridge the gap between our clients

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1 and these opportunities. And I hope we can work
 2 together to make that happen. Thank you.
 3 MS. REAGAN: Thank you, Stella. Can I
 4 ask you a couple questions before you leave?
 5 You mentioned delay. Can you say a little more
 6 about that? What does that look like and what would
 7 make it better or different?
 8 MS. BECERRA: So when you're working with
 9 a client, and we serve people that are ready to go, and
 10 if someone's not we refer them to other services and
 11 then they can come back to us when they're job ready.
 12 So if there's an employer, if Mara is Webcor and you
 13 have an admin position, I'm going to call you up Mara
 14 and refer them to you, come set up an interview, if
 15 there's a fit, she'll hire them.
 16 Instead of that process, which is Mission
 17 Hiring Hall's design, this is how we've done business
 18 for 45 years, I need to go through a middleman in order
 19 to refer somebody and then wait a couple weeks before
 20 hearing back on their status, and things just get lost.
 21 I'm looking at it as a customer service standpoint for
 22 our client as well as our employers.
 23 Another experience that I've faced, I have a
 24 relationship with an employer already established and
 25 I'm told that I can't necessarily work with that

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1 employer and I have to go through the process. So I
 2 can't directly call Mara, I have to call Bob before I
 3 could get to Mara even though we have that professional
 4 relationship.
 5 So things like that, it's a waste of time and
 6 it would be best for us to be direct and continue with
 7 our process. We want to make sure that we can still do
 8 the work that we do.
 9 MS. REAGAN: And the second question was
 10 you said you had proposed?
 11 MS. BECERRA: A couple of proposals before
 12 my time went through. Then there was a proposal that
 13 went through, we submitted back in 2014, which I think
 14 it's being reviewed now. I still don't know the
 15 status, but I think that's wrapping up soon, so I'd
 16 like to know the status of that too. And since we're
 17 the only construction administration professional
 18 program that's offered in San Francisco, I don't see
 19 why we wouldn't be approved.
 20 MS. REAGAN: And on those two had you
 21 proposed to SFMTA or to prime contractors or to whom
 22 did you propose?
 23 MS. BECERRA: I think it was under the
 24 Tutor Perini.
 25 MS. REAGAN: And Judy, can I ask you to

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1 come up and keep time?
 2 MS. ROSALES: So before opening it up to
 3 others, Pete Varma RSVP'd for this time frame but I
 4 don't see him here yet. There's also Michael Seals.
 5 He's not here yet. Is there anyone else in the
 6 audience that would like to -- yes anyone who is
 7 wanting to step up.
 8 MR. BRYANT: I thought you had somebody
 9 behind me.
 10 MS. ROSALES: Please come up and state
 11 your name for the record and the name of your company
 12 or organization.
 13 MR. BRYANT: Good afternoon. I'm James
 14 B-r-y-a-n-t. The CEO of JBR Partners, formerly an
 15 employee of municipal railway for 35 years. So I've
 16 seen it through the years. Let me start off by saying
 17 Muni historically was a savior for the southeast
 18 community of San Francisco. As the 1964 started in
 19 this transportation business there was very few people
 20 of color that was part of transportation at all. So
 21 when you want to speak of contracts, we were totally
 22 excluded. A lot of the rail systems that were set up
 23 were obviously by folks other than people of color and
 24 the various varieties of transportation, whether it was
 25 the California lines or the cable car lines or whether

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1 it was the Market Street lines, these different
 2 varieties were not part of the community and that
 3 included when I say minority, when I say people of
 4 color, I mean minorities. Asians, African-Americans
 5 Hispanics, I could go on.
 6 So let me talk a little bit, and I want to say
 7 that as preference because actually one of those
 8 persons eventually from the southeast section of San
 9 Francisco became the general manager, Curtis Green, I
 10 don't know if you all remember that. I kind of
 11 besieged myself with time.
 12 So let me talk about my 35 years have come and
 13 gone while working here, so obviously I'm very visual
 14 and seen opportunities. So in the construction field
 15 even though I was a station agent, which was someone who
 16 worked in the subway, I was not often acquainted with
 17 people of color contracts, absolutely zero. You could
 18 even look through the years of administration and how
 19 the formation of how administrations were predominantly
 20 male and Caucasian, and obviously after many 20 years
 21 some things have changed, but what really has not
 22 changed is opportunities for contracts. I say this
 23 because after 35 years I came back and said who would
 24 have more experience in dealing with the public than a
 25 person like myself who had to go through -- I should

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1 have parlayed that with four years of being with San
 2 Francisco Police Department prior to becoming a person
 3 with the Muni railway agency.
 4 So who would not have those kind of
 5 experiences? So what would happen was first the block
 6 was, well you don't have minority certification. Okay
 7 is there someone to help us out with that process? No.
 8 Until recently, I will give credit where credit is due.
 9 I don't know where she is. She's better than the
 10 invention of peanut butter folks, let me make that real
 11 clear. Because had it not been for someone like
 12 Sheila, I would be standing here probably much more
 13 vocal, much more irate.
 14 You going to give me the five minutes or you
 15 going to give me one minute? Because that was based on
 16 five minutes. I was just starting. That was my intro.
 17 You've got to know, you've got to tell the
 18 President of the United States, you need to sit down
 19 because this old guy here, he's got time and grade and
 20 he gets to finish what he's got to say.
 21 Opportunities as a prime, nonexistent. Come
 22 on. There's very few primes and what happens is when
 23 we do have a prime contract what happens? Mara and
 24 James has to fight each other for that single
 25 opportunity. I always say I bow to those who are

9

1 victors because it does open a door. Obviously this
 2 door is being opened. It couldn't have been more of a
 3 professional organization to have this opportunity to
 4 bring the issues such as the DBE availability and
 5 utilization study has to be done, had to be done with a
 6 professional group, I applaud you all doing this.
 7 The prime issue: Primes, look at any phase of
 8 construction. There are no opportunities for any kind
 9 of African-Americans in the construction field getting
 10 opportunities for the railway. I have not seen three.
 11 And there has to be 100 contracts that are out there.
 12 Sizes of businesses: Obviously when you start
 13 off as a small business, minority business, you don't
 14 have the capital, you don't have things like what the
 15 costs for insurance, you don't have \$100,000 to sit
 16 back on your side just in case you actually get a
 17 payroll, and then you've got to roll that payroll.
 18 You've got to go to your bank. You've got to hope
 19 you're an old guy like me and have a retirement and you
 20 can go, can I borrow off of that? But if you don't
 21 have it you're out of the game. That is a problem.
 22 Status: Status of being a business is also
 23 really important because one of the first things they
 24 ask you when you ask to establish your business is what
 25 have you done? What's your status? Most minority

10

1 businesses don't have a status because most minority
 2 businesses don't last long enough to get status.
 3 Experience and history: I think I talked a
 4 little bit about that. You can be somebody who has 35
 5 years of experience in public relations, who actually
 6 does the direct public relations, and then you have to
 7 fight like heck to win a contract against folks who you
 8 trained when they came in the system and then they're
 9 allowed the contracts. You go, where's the fairness in
 10 that?
 11 Because there's a decline in population in
 12 certain minority groups, the emphasis on should it
 13 matter anymore if the African-Americans are not more
 14 than five or six percent then they shouldn't get more
 15 than five or six of the opportunities. If you look at
 16 opportunities I guarantee you we're not at that five
 17 our six percent of opportunities.
 18 Set aside opportunities: As you know, some of
 19 the other departments in San Francisco DPW, PUC have
 20 said to themselves if there's no set aside
 21 opportunities, they'll never get it. They won't have
 22 fancy staffs, they won't have the ability to have
 23 technical offices and abilities to raise opportunities,
 24 they won't have any of that. So there is a discrepancy
 25 here. If I don't get a set aside or something like

11

1 that I may never got an opportunity at all.
 2 Training: If you want somebody to develop,
 3 don't you have some sense of training? Don't you
 4 provide some way for somebody to learn? I remember my
 5 years coming up; one of the things we did over the
 6 years, there's no way for a clerical person to become a
 7 boss unless there's some ladder that set up to give
 8 people to achieve. No ladders whatsoever. The
 9 industry of transportation itself nationwide, why do
 10 you have COMTO why do you have these minority
 11 organization? Because nationally it is not set up for
 12 minorities. You have got to go in there and fight for
 13 it.
 14 If you look at some of the leaders who came up
 15 and got opportunities, they got opportunities because
 16 you had these rights groups saying gee, we got over a
 17 thousand transportation systems, we don't have but two
 18 African-Americans running them all throughout the
 19 country. San Francisco has been fairly unique in that
 20 because of folks like Curtis Green and some of the
 21 other five or six folks who had an opportunity who came
 22 from up. That will never happen again. No one ever
 23 will come from within, be a bus driver and become the
 24 executive director of MTA. And I say that and I'll go
 25 back to the training part because you lack those

12

1 opportunities.

2 Professional service: Again there's no

3 professional services out there for this great

4 organization, probably the fifth largest transportation

5 system in America, you have got to come up with some

6 ways to provide legal services. And just lately some

7 of our organizations are now giving us bonding

8 experience and other experiences, so that's great but

9 you know, that's recent in the last two years or so.

10 So I was in one situation where I actually

11 received a letter award and immediately that letter

12 award came back. I went and I said, gee, what

13 happened? I was told go through the process, go and

14 make an information request. By all that time that all

15 that happened it was mindful, it was a track that you

16 have to follow, but there was nobody that you could go

17 to that could say wait a minute, there's a problem

18 here. So how does the deal with the problem? Because

19 you say I want to go along to get along. I don't want

20 to be known as, in my previous years as a union rep, I

21 don't want to be known as if you come in the room

22 you're going to be thrown out by me. I want to be

23 known as a businessman looking for a business

24 opportunity to help thrive a community that I live in

25 which is San Francisco and give opportunities to folks

13

1 coming up.

2 And the young lady that was prior to me makes a

3 perfect example. We have at least -- there's Mission

4 Hiring Hall, there's A. Philip Randolph Institute,

5 there's YCD, there's Charity Cultural, there's a

6 variety of opportunities for the railway to take a look

7 and go if City Build can look at opportunities of

8 producing folks then maybe we should take a look at how

9 we involve those people because they're predominately

10 people of color, and let me add this, not only are they

11 people of color, they're quality people of color. And

12 so how do we intermesh?

13 When I first came to this city we had programs

14 like CITA, we had programs like Neighborhood Youth

15 Corps, we had a lot of these programs. Then guess

16 what? I would have never been a transit police in San

17 Francisco without the existence of it.

18 I hope you hear me. I appreciate you giving me

19 this time and opportunity, and I shall move on to the

20 next space. Have a good day.

21 MS. REAGAN: James, can I ask you one

22 question? You referred to receiving a letter. Was

23 that a letter of invitation to bid?

24 MR. BRYANT: No. That was the award

25 letter. I was actually awarded a contract, it came

14

1 back that, "Oh gee, no that was a mistake."

2 So I said, okay. After having to figure out it

3 was a mistake, well let me ask you this. It's like in

4 court. You make a mistake, they don't allow you to go

5 ignorance is part of the resolution. If this a

6 professional organization and a person or an

7 organization or a business group goes out, bids,

8 follows the complete process, the process is completed

9 and you're given an opportunity, given the award, there

10 should be some explanation. I did go through the

11 process of asking the information piece, but it was so

12 convoluted that it wasn't worth the necessity of me

13 saying I'm going to have another fight. Had too many

14 of those, don't need any additional, so I'll keep

15 trying. But you cannot keep trying and hitting a wall

16 that brings you no results.

17 In that particular case my company was

18 qualified to do data collection, we do data collection

19 for the Department of Public Works, and what I was then

20 told in the end is that the City took their own right

21 to submit it to the Department of Public Works and have

22 them do the work even after we received the award. And

23 I say fine. Still haven't found where that contract

24 bubbled up out of that.

25 MS. REAGAN: Thank you.

15

1 MR. BRYANT: Any other questions?

2 MS. ROSALES: Thank you. I still don't

3 see Pete Varma, but I just want to make sure that Olaf

4 Hansen is not present, Ed Dillard, Michael Seals?

5 Okay. So does anyone --

6 Thank you so much. Stan Moy has signed up to

7 speak.

8 MR. MOY: Good afternoon. My name is

9 Stanley Moy, M-o-y is the last name. I'm here to pinch

10 hit for Jesus Vargas who is going to an interview, and

11 I'm representing his firm VSCE, it's a construction

12 management and program management firm. Prior to being

13 associated with VSCE I was an architectural firm owner

14 for 27 years, and I've testified undoubtedly many times

15 on these matters, and I'm surprised here in 2015 I'm

16 doing it again. It's like old home week for me seeing

17 some of my old friends. We're all getting grayer and

18 older but things don't seem to be changing much.

19 I want to commend this group and Ms. Harmin for

20 promoting and advocating for disparity studies because

21 disparity studies is the only legal method from which

22 we can demonstrate discrimination and bias in

23 contracting procedures. I'm most familiar with

24 subcontracting at the professional services level and

25 I'm prepared to speak on that and answer some

16

1 questions.

2 As far as VSCE goes it's a firm that started

3 in, I believe, 2004 and I'm currently working for them

4 as a program and project management person and resource

5 for transit agencies such as AC Transit. Last week I

6 was asked to look at a contract for BRT that SFMTA, MTC

7 is it? MTA has got, so I just bring that up because I

8 have an interview brochure from which VSCE was a prime

9 contractor with C. Hill I believe, and I was on this

10 team and it's date June 11, 2013. So this contract was

11 awarded after the interview and we just recently got an

12 assignment to do the contract, the first assignment.

13 Prior to that we were awarded the contract,

14 contracted for a certain sum of money and then we had

15 to knock on the door for two years before we got an

16 assignment. So that's an example of some of the

17 hardships even at the prime level that minority firms,

18 even when they win the job will have endure and go

19 through.

20 Can you imagine having all these people on the

21 org chart waiting for two years to get an assignment

22 and the cost of putting this team together as well as

23 knocking on the door for two years just to get the

24 first assignment? Which is albeit it a small one, was

25 welcome anyway.

17

1 starts. That's all I can say about that.

2 MS. ROSALES: Would you say this is a

3 unique experience?

4 MR. MOY: No, I think it's pretty normal

5 in transit projects. They start and stop with such

6 frequency. For smaller firms it's a hardship because

7 we don't have as many large contracts as the larger

8 firms and the primes. And at the prime level it's even

9 more difficult because we are holding the bag for our

10 subs as well. It's hard on the subs, it's hard on the

11 primes, it's hard on everybody actually doing business

12 with you.

13 MS. ROSALES: Can you give us a dollar

14 range of the contract value projected?

15 MR. MOY: I don't know the split because

16 when you have a large team you can have a 5 million or

17 a \$1 million contract, but by the time it filters down

18 and gets divided up into a bunch of small pieces

19 which have to be coordinated and pulled back together

20 again. So that's one the hardships that a prime would

21 have as well as some of the smaller subs because you

22 have also insurance requirements, professional

23 services, professional liability insurance

24 requirements, which we have to be from day one during

25 the interview process. If you don't have it during the

19

1 I appreciate the idea of having a disparity

2 study and because it would demonstrate availability as

3 well as the lack of contract dollars going to minority

4 firms as a result of hard evidence. And that hard

5 evidence is what is required by the courts and current

6 laws as we all know.

7 I'm sorry I'm not fully prepared to discuss

8 this matter further because I'm not up-to-date on the

9 current status of the legal proceedings. I'll be happy

10 to answer any questions that you may if I can.

11 Once again, I'm representing VSCE a PM/CM

12 company. Thank you very much.

13 MS. ROSALES: Thank you Mr. Moy. I do

14 have a follow-up question. Can you give us a little

15 bit more explanation about the two-year gap? What

16 happened there?

17 MR. MOY: Obviously it takes a long time

18 for you to get a BRT project out to a point where you

19 are awarding contracts for follow-up services. I would

20 suggest you interview closer to the time you can award

21 so you can shorten the gap and not have the hardship of

22 this long gestation period. We who work in

23 transportation projects know that there's fits and

24 starts and gaps in funding as well, so therefore you

25 have contracts come in pieces as well as fits and

18

1 interview, you get thrown out right away or you don't

2 qualify. And when you do qualify and you do get the

3 contract, you have to wait for two years. That means

4 you're carrying the insurance for two years. Then

5 beyond that the contract lasts four or five years. So

6 you're carrying seven years of insurance for three

7 years worth of work.

8 That's just one example. There's payroll,

9 there's overhead, there's other expenses that occur at

10 the same time. Sorry I can't be more specific about

11 the contract amount. I think it's a million dollars,

12 but a million divided by several primes and filtered

13 down to many subs, it's not much money actually.

14 MS. ROSALES: Those are all my questions.

15 Thank you.

16 MR. MOY: Thank you very much for this

17 hearing and thank you for supporting the availability

18 and disparity studies. It's really a necessary fact of

19 life. We don't like to come here and do this, but it's

20 very necessary for us to have. Thank you.

21 MS. ROSALES: Thank you for your

22 participation. Do we have any other speakers? Anybody

23 would like to address any relevant topic on the record?

24 Okay we do have other folks that have indicated

25 they will be coming a certain time, and we're not at

20

1 that time yet. We can certainly take a break.
 2 (Off the record from 3:34 to 3:53.)
 3 MS. ROSALES: We're going back on the
 4 record. It is 3:52 approximately. Can we have
 5 Mr. Varma who has signed up to speak at this time
 6 approach the mic?
 7 Mr. Varma, because you weren't here when we
 8 gave the instructions, we're asking everyone to state
 9 their name for the record. Your testimony will be
 10 recorded. Please also spell your last name for the
 11 record and identify the name of the organization or
 12 company if you represent one.
 13 MR. VARMA: Good afternoon. My name is
 14 Pete Varma, V-a-r-m-a. And I'm here to represent
 15 National Association of Minority Contractors, Northern
 16 California Chapter.
 17 Thank you for inviting me to speak on behalf of
 18 NAMAC for short. I'm here to represent minority
 19 contractors and suppliers in Northern California. Let
 20 me share with you some of the difficulties with the
 21 DBEs on contracts and opportunities especially with
 22 anything to do with transportation industry.
 23 That for example, at SFMTA many of our members
 24 have participated in outreach events and met numerous
 25 general contractors, prime contractors and

21

1 subcontractors. While the outreach events are done
 2 very well to invite companies to come and meet and
 3 greet, but the outcome result of subcontracting
 4 opportunity falls short all the time, and it's very --
 5 one area for SFMTA to look into, what can they do to
 6 improve it number one. And two if it doesn't get
 7 improved, many of the DBE firms, the contractors
 8 especially, the small guys can't take time out of their
 9 work to go to meet and greet and they miss out on the
 10 opportunity of those contracts thus not helping you
 11 meeting the DBE goals and they are not able to bid on
 12 it.
 13 One of the other recommendations that NAMAC
 14 sees is the goals, the DBE goals, while it's at 25 or
 15 30 percent on some projects, it's project based, some
 16 are 5 percent, not at SFMTA, but this is overall
 17 looking in Northern California. The goal needs to be
 18 increased. The bigger the goal, the better the
 19 audience, the more opportunities for contractors to
 20 participate, because if the goal it set up for 30
 21 percent for example then a prime contractor can have
 22 one contract with one DBE subcontractor and meet the
 23 goal. And here you have millions of dollars worth of
 24 contracts, for example it could be a \$50 million
 25 contract, one company walks away with all of the DBE

22

1 goals, it doesn't help the rest of us.
 2 So we'd like to see that these contracts in
 3 fact are unbundled, in a sense they are broken down in
 4 a small size bid package based on each trade and also
 5 includes suppliers from different industry that they
 6 can participate. By doing that you're getting more and
 7 more bid opportunities to the DBE firms and they can
 8 participate. It also means that they have to find a
 9 way to insurance their company, be able to afford to
 10 bond on these various projects, and meet the union
 11 requirements.
 12 There also should be the areas, some of the
 13 other -- our focus is more about we know that the goal
 14 is low but I'm here to talk more about strategies and
 15 suggestions and recommendations that moving forward
 16 could be in place on the future contracts,
 17 opportunities at SFMTA. Create an opportunity for DBE
 18 and build capacity, breaking scope of work into smaller
 19 bid packages. Also maybe perhaps another way to look
 20 at it, develop some type of mentorship program from
 21 prime to subprime from SFMTA to DBEs, and ensure that
 22 the larger firms are working with smaller companies and
 23 smaller bid packages that allows an even playing field
 24 for small guys to participate.
 25 The prime at SFMTA identifies subcontract

23

1 opportunities for DBE participation also including, not
 2 just in one scope of work, but in all different trades
 3 because the trade represents the larger dollar amount
 4 of subcontracting opportunities and it should be
 5 looking at all the different angles of the trades.
 6 Perhaps there should be a directory which does
 7 exist with BART and other agencies, SFMTA has one.
 8 Selective or qualified or prequalified list of DBE
 9 firms that are ready to bid on projects but also
 10 partner with prime and other DBE firms. There's got to
 11 be some mechanism way to match them up and enhance it
 12 while doing that part of partnering and joint venture
 13 whatever comes out of it, they also bring another
 14 benefit too, the DBE companies because these companies
 15 can hire more people locally and also enhance pay city
 16 sales tax and payroll tax. It helps the City in that
 17 part of the revenue generation and it could be a
 18 win-win situation.
 19 As I said earlier, the networking events,
 20 sometimes with DBEs when I talk to them you almost have
 21 to push them, and a big question is why should we go?
 22 What is the value of going to the networking event?
 23 Meeting a prime, I meet with all the major primes and
 24 we who they are, but as I go to this event, my company
 25 name get listed on the bid but I didn't win any

24

1 contracts.

2 So that's always been a big issue for DBEs in a

3 sense of you meet a prime, they shake hands,

4 everybody's in a good mood, you're here for two or three

5 hours, you get their business card, they write down

6 your information, they ask you what trade you are in,

7 you walk away from this event, you go back to the

8 office and make that phone call, and you call them

9 numerous times and you send them emails and you don't

10 get a response.

11 There's got to be a way to measure that because

12 too many small businesses, their time is so precious

13 running a small business, and I'm a small business

14 owner, many here behind me are also. We don't have a

15 lot of time to go to a lot of meetings. So if we can

16 streamline it, identify the DBEs who can in different

17 scopes, different trades and identify the scope of work

18 that SFMTA may be looking into, we can do a lot of work

19 ahead of time before the bid comes out on the street.

20 Now you have companies who are really interested in

21 participation. Now when you do an outreach or

22 networking or meet and greet, you have a bigger, better

23 participation, it's more value to us because it's not a

24 guarantee, but it's identified that I can do concrete

25 work, that I am a plumber, that I am an electrician, a

25

1 improve ourselves, what do we need to do to enhance our

2 company, and how do we go about it, maybe partner with

3 another DBE firm to bid on those jobs?

4 Another area to look into with this type of

5 project is to involve the communities as a partner.

6 They bring a lot of resource and solution that could be

7 used. It's another way of involving the community, you

8 also get more local hiring, job creation, and some of

9 these projects are in their backyard, so this could be

10 another means of enhancing the program.

11 Another suggestion from NAMAC would be to

12 provide workforce training in all different trades such

13 as apprenticeship program because here's some of the

14 problems. The transportation industry, the scope of

15 work is really different than building a high rise or

16 apartment building. Totally two different industries,

17 right? If you have not worked in the transportation

18 industry, if you're not familiar with what goes on and

19 the DBE firms are not trained, the workers are not

20 trained to work on those kinds of job, it will be very

21 difficult to fill those types of things. So highly

22 recommend some kind of workforce training and trades

23 training be done for these types of projects.

24 I'm going to also talk a bit more on the

25 contracting side. Perhaps one of the things, well let

27

1 carpenter. I can do this type of work.

2 And doing that type of matchmaking ahead of

3 time will benefit all of us and reduce our time spent

4 in the network.

5 The other thing about that is that no one is

6 actually from what we have seen, who is monitoring and

7 who's held accountable? The prime lists all the

8 companies they have met during the matchmaking event

9 meet and greet, but who at SFMTA is looking at that and

10 say hey, you met 20 companies and out of those

11 companies in different trades who actually you will be

12 working with or listed? Not everybody gets listed,

13 there may be one person who gets listed. Like to see

14 that there's accountability into this type of

15 networking event. If I came and spent my time and I

16 registered online and I re register again, fill out the

17 forms at the networking event, doing it twice, then I

18 get my business card to them. So I make contacts three

19 or four times already with the prime and when I go back

20 nothing happens.

21 There's got to be some way to hold them

22 accountable for that. At least they could call back

23 and say your company does not fit this criteria or

24 whatever the issue is. If we don't know, then how

25 would we know on a future project what we need to do to

26

1 me go back. One of the examples is you have SFPUC

2 training facility assistance center in San Francisco by

3 Candlestick Point, right? It would be great if SFMTA

4 partnered with SFPUC and provided a training mechanism,

5 and also since this training facility provides

6 contracting, they could provide technical assistance

7 such as estimating on transportation work, scope of

8 work. They can also talk about what does it cost to

9 bid on these types of projects, talking about the

10 finance part of the business. It could be also

11 business development and job performance before

12 bidding.

13 This is the key to success for any small DBE

14 companies that there's a tool out there. If you can

15 provide those types of training you now have a better

16 chance of getting some really qualified DBE firms that

17 can bid on these contracts and actually walk away

18 winning these types of work because now they know what

19 they really have to do to win these types of projects.

20 Otherwise it's very difficult. What happens is

21 we are relying on the prime, whatever's left over, the

22 small businesses end up winning those contracts. Many

23 times there's a very small portion of the contracts and

24 what happens is it's not enough to sustain growth in

25 your business, not enough to pay for the overhead, not

28

1 enough sometimes to pay for your rent or your salary
 2 for your employees. So rather than constantly bidding
 3 on projects that a lot of the DBE does for the sake of
 4 bidding it and winning it at a low bid process, because
 5 it's based on price only, they end up actually losing a
 6 lot of money.
 7 So it would be good to look into other means to
 8 go after and help some of these DBEs win these
 9 projects.
 10 I'm going to shift little bit onto the material
 11 side of the business. Material supplies are seldom
 12 listed, nor there may be a goal, whether it's a 50
 13 percent, 60 percent credited DBE goals on the project,
 14 but what happens is the prime and the subprimes, they
 15 really don't go out and reach out to suppliers like us
 16 out there. They really don't. Because what they tell
 17 us is that this is a very competitive bid, I got my
 18 pricing from my larger distributor, and the smaller
 19 companies really can't compete against the pricing.
 20 Your pricing is too high, therefore I can't use you.
 21 A supplier program doesn't exist essentially.
 22 So it would be good to see a program for DBE
 23 suppliers that can collaborate with the primes and the
 24 subs and you have to also -- whether it's a DBE or any
 25 sub, without materials you can't build anything.

29

1 Somebody has to buy the material from someplace or
 2 entity, a company. It would be great for a
 3 collaboration between the prime and the subprime and
 4 supplier, break down into smaller scope, sizes of the
 5 material is going to be needed for the scope of the
 6 projects by trade, and put it out there for the DBE
 7 suppliers to submit their prices to the prime. Someone
 8 needs to monitor that beside the prime. If you let the
 9 prime do all the work and let the prime be responsible
 10 for all the stuff, you're going to have a tough time
 11 meeting some of these DBE goals. That's one of the
 12 problems we have right now. There's got to be a third
 13 party or SFMTA managing that type of information going
 14 back and forth between the prime and the sub and the
 15 supplier.
 16 Another example is unbundled large contracts.
 17 Also in the supply side of the world, I'll use one
 18 example SFMTA, you have got a maintenance contract
 19 awarded to a company, Alstom out of Chicago, \$50
 20 million. So what happened so far, right? All the
 21 existing suppliers who were providing materials to
 22 SFMTA, many of them, they don't do business direct with
 23 SFMTA because they have to sell through Alstom. They
 24 own the contract to manage those types of maintenance
 25 repair operation products and supply to SFMTA. So they

30

1 became the contract management. By doing that, you're
 2 shutting down many of the suppliers. Also what happens
 3 is when you do that the supplier loses their revenue
 4 stream. Not just that, the supplier also loses their
 5 credit with that particular manufacturer because they
 6 were buying direct from them. Now since they're not
 7 supplying any materials you lose that credit. Who are
 8 they going to sell those products to? This is industry
 9 specific and company specific.
 10 These are some of the areas that need to be
 11 looked at. By bundling it hurts a lot of DBE firms.
 12 Unbundling will help a lot of DBE suppliers to
 13 participate and also gives them the opportunity to grow
 14 their business.
 15 With that I want to thank you for the time.
 16 MS. REAGAN: I had a question about
 17 NAMAC. Can you give us a sense for the record the
 18 number of members you have?
 19 MR. VARMA: NAMAC is a national
 20 organization. For the Northern California chapter we
 21 have over 200 members.
 22 MS. REAGAN: Do you have any records on
 23 the certification of your members as DBEs or their
 24 eligibility for certification as DBEs?
 25 MR. VARMA: Yes, we do. I would say that

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1 many of the contractors and suppliers that are on the
 2 database, I would say about 80 percent are DBE firms,
 3 they are certified. They are certified firms.
 4 Now the challenge for them is they are not
 5 bidding on transportation work because it's industry.
 6 Many of our members, they have the capacity to do that
 7 because in the rail type of work or structural, you've
 8 got concrete, you've got all types of steel structure,
 9 those types of scope of work usually going to non DBE
 10 firms from what we have seen. Can the DBE companies
 11 perform those types of work? Absolutely. We encourage
 12 them to diversify. Since the building industry right
 13 now is in, you know, there's plenty of them and a lot
 14 of contracts, still there a lot of challenges for DBEs
 15 to participate.
 16 MS. ROSALES: Okay maybe the last
 17 question, because you mentioned mentor/protege, does
 18 NAMAC have a proposed template that it would be willing
 19 to share as a mentor/protege program?
 20 MR. VARMA: Sure, absolutely. We partner
 21 with a couple of the agencies and we do have a template
 22 we can share with you that can enhance the growth of
 23 some of those DBEs and the collaboration. I think that
 24 would be a great way to get into the program and help
 25 some of these DBEs and the prime because we have to

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1 partner with them and the other subs to win some of
2 these projects.

3 MS. ROSALES: Great. Thank you.

4 Okay, we now have -- I just want to make sure I
5 didn't overlook Michael Seals in the event he came in.
6 I'd like to call Jennifer Kellogg. Are you interested
7 in speaking?

8 MS. KELLOGG-VARMA: I guess I am. I
9 didn't come super prepared but I will do the best I
10 can.

11 MS. ROSALES: Please state your name for
12 the record and also spell your last name.

13 MS. KELLOGG-VARMA: My name is Jennifer
14 Kellogg Varma, spelling of the very last part of my
15 name is V as in Victor, a-r-m-a.

16 I stand today before you as a San Francisco
17 woman-owned business, small business. I am DBE
18 certified. I have a warehouse out in the Bayview
19 District in an office in the Mission. I started my
20 business two years ago, work predominantly with the
21 City and County of San Francisco's department, SFMTA
22 being one of them. I am fortunate to have 25 years in
23 the industrial business, so I am an industrial
24 wholesaler.

25 In building my business I was certified with

1 recommendations, we bring these products to them, they
2 submit them for purchasing. Purchasing takes those
3 products, we have to supply part numbers, we have to
4 supply manufacturer, and they go out and they find this
5 product from possibly two or three other sources
6 supposedly to get a competitive bid.

7 So if we are not successful that goes to
8 another vendor because it's lower priced. So all of
9 the work that we did to identify the product, to
10 possibly resolve the problem for the customer goes by
11 the wayside because we are thrown into the pool of just
12 having to compete with other vendors.

13 I also have -- in the last two years there have
14 been two major contracts that the City has decided to
15 piggyback on from the State of California which involve
16 two very, very large supply houses. And these supply
17 houses, as you can imagine, have incredible buying
18 power. They also have a very extensive website of
19 their products and they also have warehouses and are
20 somewhat mostly located outside of San Francisco. So
21 they have given, because the City has piggybacked onto
22 this contract, special pricing that is statewide.

23 So once again when we go to it, it gets
24 submitted into purchasing, once again, the purchaser
25 has the choice to go ahead and go with one of these

1 CMB only for safety products because safety products
2 were the only products that I have currently in my
3 warehouse. But I do a number of other industrial
4 products. When you start a small company you're not
5 starting with a lot of money, so to tie that money up
6 in inventory just does not make sense. You try to
7 start small and build from there. And the reason I
8 mention that is because I will tell you, out of the
9 business I've done with the City and in particular
10 SFMTA in the last two years, I have only done about 30
11 percent of safety products. The rest includes material
12 handling, railroad products, adhesives, power tools,
13 hand tools, okay?

14 What my team does is we go out to your end
15 users and our work is to find out what are their
16 problem areas, what are their roadblocks, and how can
17 we help them do their job more efficiently and what
18 products can we bring to the table in order to do that.
19 That is the value that we offer. We also offer value
20 by being able to get them products very quickly as well
21 as having an extensive knowledge base of the products
22 that they're using or that we are recommending.

23 The problem that you have is that once, we work
24 mostly on the material supply side of things on a daily
25 basis, so the problem that we have is that we make

1 two large supply houses, again possibly after all of
2 the work that we have done in order to resolve the
3 problem for this customer.

4 So those are some of the roadblocks that we
5 face as small suppliers. How do we resolve those?
6 I would suggest that right now we get a bid preference
7 of ten percent only on those commodity lines that we're
8 approved with CMD, so I would first of all look back at
9 CMD and see what the requirements are to be certified
10 for commodity lines and revisit that because I do a lot
11 of material handling, I cannot as a small supplier be
12 carrying some of these huge material handling items in
13 my small little warehouse. And so I would suggest that
14 be looked at again. I suggest that this ten percent
15 bid preference be increased. It's not enough. We have
16 to compete against the great big houses who have
17 tremendous buying power that we don't have.

18 And I also want to just note that I know other
19 little suppliers as well who are trying to grow their
20 businesses are having these exact same problems, and
21 with that Alstom contract, many of them do not want to
22 work with Alstom because what they have offered the
23 City is almost proprietary, and Alstom is taking that
24 information and they are buying from them currently,
25 but at the same time on the back end, Alstom is setting

1 up deals to buy the materials direct or to have those
 2 manufactured, so that's a concern.
 3 I was trying to think if there was anything
 4 else. I think that's about it. Thank you.
 5 MS. ROSALES: Any questions? Thank you
 6 so much.
 7 I understand Mr. Walter Allen is in the room.
 8 Hi. Welcome.
 9 I'll just repeat because you weren't here when
 10 I was giving the initial instructions. Your testimony
 11 is being recorded by the court reporter, so we ask that
 12 you state your name for the record and identify the
 13 name of your company or trade organization if you are
 14 representing either.
 15 MR. ALLEN: Okay. My name is Walter
 16 Allen, last name A-I-I-e-n. I have a BS in Industrial
 17 Engineering. I'm going to read from this text and I'm
 18 going to provide it, and if there's questions I'd be
 19 happy to shoot those.
 20 I have a BS in Industrial Engineering from Iowa
 21 State University and an MS in Civil Engineering from
 22 the University of Berkeley. I served in the US Navy
 23 for seven years, and I've traveled both throughout the
 24 United States and throughout the world.
 25 I am the founder, owner, CEO, president of

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1 have been a small business for over 20 years working in
 2 the transportation industry. Funding is always a big
 3 issue. DBE offices are extremely underfunded for the
 4 work they are asked to perform. They are being asked
 5 to reshape part of the national economic framework just
 6 as teachers are asked to reshape our children. DBE
 7 offices need to find, promote, and make marriages
 8 happen between small businesses and prime businesses or
 9 majority businesses. There are few large firms that
 10 traditionally get most of the contracts and get most of
 11 the dollars. If DBE offices are going to be effective,
 12 more funding is needed to support DBE offices and the
 13 service they provide. For the most part DBEs do well
 14 on the front end of the process with limited funds.
 15 Any additional funding should be applied to monitoring
 16 and follow-up of contracts and obtaining better
 17 metrics.
 18 Structural changes I would suggest: It takes
 19 years to build a business and there are many pitfalls
 20 along the way. It is my opinion that most DBE offices
 21 are structured to track and follow some of the wrong
 22 items.
 23 We should focus on three items; dollars, jobs
 24 and contracts. Dollars is what business is about; cash
 25 flow, funding, making payroll, making a profit. So I

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1 Acumen Building Enterprise, Inc. Acumen is a small
 2 local BPE and minority-owned business that started as a
 3 one-person operation and employ about 40 people today.
 4 The firm has been active in the Bay Area community for
 5 over 20 years.
 6 Acumen's focus is large infrastructure and
 7 transportation systems. Acumen is a long term member
 8 of COMTO, the Community of Minority Transportation
 9 Officials. Dana Lane, the president, sends her
 10 regards.
 11 I wanted to set the stage for the panel so
 12 there was some context and framework before I get to
 13 the reasons I have come to speak to you today. Pete is
 14 a good friend, he talked about contracting. That is
 15 one side of the fence. I'm going to talk about
 16 professional services which is the other side of the
 17 fence.
 18 First of all, I'd like to thank the City of San
 19 Francisco and SFMTA for having this panel and
 20 performing a much needed disparity study. It is my
 21 hope that other transit agencies and regional transit
 22 authorities in the region will follow the leadership of
 23 SFMTA and BART in this area of inclusion and diversity
 24 of small business.
 25 My comments on why I came to speak today: I

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1 ask how many dollars went to DBE businesses? If an
 2 agency cannot answer that question, we cannot start to
 3 have the conversation. If that question can be
 4 answered, my next question is what is the procurement
 5 budget of dollars across the agency awarded for a given
 6 year? Once we make some simple calculations we can
 7 have the metrics and ratios, we can tell how transit
 8 agencies are doing year to year compared to other
 9 transit agencies or PMOs. I think answers to these
 10 questions start to level the playing field. I know
 11 some of this is being done but I think more can be done
 12 in that area.
 13 Jobs: Again on the professional side, how many
 14 jobs, positions or FTAs or full time equivalents are
 15 going to professional services that are DBEs? The
 16 federal government tracks jobs, work force, employment.
 17 I think DBE should track job growth as it is related to
 18 business. Jobs are important and they are tied to
 19 dollars. If you want to reduce crime in San Francisco,
 20 Oakland or Bay Area, give everyone a job. Jobs are
 21 important.
 22 Contracts: How many are going to DBE
 23 businesses and what are the dollar values of those
 24 contracts? It is not important how many small
 25 businesses show up at an outreach meeting or certify in

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1 the database or part of a team. What is important is
 2 how many contracts are signed, how many jobs are
 3 provided, how many dollars are awarded.
 4 It is my understanding that there is a delta
 5 between what contracts are awarded on the front end and
 6 what contracts or dollars are awarded at the back end.
 7 This can be resolved with more monitoring during the
 8 project. Also there needs to be monitoring over
 9 multiple project years. So again, monitoring quarterly
 10 and making adjustments to the project is critical. I
 11 say again, follow the money.
 12 Now to focus a little more on DBEs, and excuse
 13 me if I run between DBE and small business, but I am
 14 that, so I think that's where my views come from.
 15 What is my perception about your experience in
 16 doing business in the local market, and I stress local.
 17 Acumen has worked with SFMTA and the small business
 18 office which I find very helpful. I'm very grateful
 19 for the support provided. SFMTA currently has a good
 20 staff and has had good staff over the years, but they
 21 are underfunded for the job they need to do. I give
 22 SFMTA or the City of San Francisco poor marks for
 23 having small business programs that are restrictive to
 24 having an office in San Francisco and requiring more
 25 than 50 percent of the business revenue be generated

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1 through that San Francisco office.
 2 In my opinion this is ludicrous. We live in a
 3 region not one city that covers 47 square miles. A
 4 small business located in West Oakland can be downtown
 5 San Francisco faster than someone coming from the
 6 outskirts of San Francisco. The City of San Francisco
 7 needs to redefine local. I understand the political
 8 reasons for limiting small business programs to only
 9 those that can afford to live and work in San
 10 Francisco, but it limits growth of small business and
 11 is not good for the region.
 12 A simple point system could resolve this issue;
 13 more points for having an office in San Francisco, less
 14 points for having an office in the Bay Area, and less
 15 points for having on office outside the state.
 16 Next item, whether businesses encounter
 17 barriers when bidding as prime contractors,
 18 subcontractors or suppliers: I feel the barriers are
 19 structural to the region and the nation. It's not
 20 blatant. The system is rigged. I'm sure if any one of
 21 the panel has started their own business that person
 22 will understand some of the structural business issues.
 23 Most small businesses die within five years. I've made
 24 the 20 year point and have had some success mainly due
 25 to luck, hard work, and the support of DBE small

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1 business offices around the nation. Without the DBE
 2 small business support I would not have made it this
 3 far.
 4 The difficulty with the DBE programs is that it
 5 focuses only on federal funds which have been going
 6 down because of what is occurring in congress.
 7 Agencies are looking at more local funds. There is no
 8 DBE requirement on local funds. This needs to change
 9 as soon as possible. I would say that all money is
 10 green. If San Francisco is really a progressive city,
 11 it needs to be progressive in business as well.
 12 Whether business owners believe they have been
 13 treated unfairly based on their race, ethnicity or
 14 gender; I would say racism still exists, sexism still
 15 exists, but it is structural. It's not blatant, it's
 16 subtle. Discrimination is more difficult to identify
 17 and correct. I found the biggest pushback in midlevel
 18 management ranks of organizations that have been on the
 19 job for a long time. This is playing out in our
 20 national politics. The old saying that you need to be
 21 twice as good is still true to some degree today.
 22 Things are improving greatly. Also I will tell you
 23 from the private side, the phone does not ring unless
 24 there is DBE or small business goals in the contract.
 25 If the primes know the agency is serious about

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1 promoting small business and DBEs and inclusive, they
 2 will mirror the same values and programs. Again, let's
 3 follow the dollars.
 4 In closing, I will suggest that every agency in
 5 the Bay Area adopt a 30 percent goal for DBE small
 6 business. There is precedence for this 30 percent goal
 7 with Caltrans, High Speed Rail, and LAMTA. We all pay
 8 local taxes in the region which support the region.
 9 There are some agencies that are doing a good job and
 10 there is commitment from the board, which is a policy
 11 issue, and top management. I would put BART and ACTC
 12 at the top of the list for agencies in the region that
 13 are doing well. SFMTA needs to change what local
 14 represents and adopt a local small business program
 15 that is more inclusive. This would include the airport
 16 which is San Francisco International Airport.
 17 There are some agencies in my opinion that are
 18 not doing a good job, or a poor job. I would put MTC
 19 and Caltrain in this category. I would strongly
 20 suggest that AC Transit follow BART and SFMTA in
 21 completing a diversity study. I'm happy to discuss
 22 next steps with the panel or have a follow up meeting
 23 but do want to be part of the solution, not just for
 24 Acumen, but all small businesses.
 25 Thank you.

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1 MS. REAGAN: I have one question, I think
 2 I know the answer. You talked about dollars on the
 3 front end verses dollars on the back end, and I'm
 4 assuming you're referring to DBE firms being awarded
 5 contracts, being part of a team, but then at the end of
 6 the contract they're not part of that. They don't get
 7 the dollars that were promised.
 8 MR. ALLEN. Correct.
 9 MS. REAGAN: Or if there was a change
 10 order they don't get a proportionate amount of the
 11 change order?
 12 MR. ALLEN. Yes. That is a challenge.
 13 I hear it in the industry, I got a project, I never got
 14 any work. But we all plan our work flow based on
 15 anticipating that work coming through the door. And
 16 when it doesn't happen it creates shortfall, and that's
 17 why businesses go out of business. We need to assign
 18 that on the front end, stick to it, and monitor it. I
 19 think that's the piece that also falls through many
 20 large infrastructure projects. Transportation projects
 21 go for multiple years. If you have a five- or
 22 three-year span it's just too much and it gets lost.
 23 So I say quarterly monitoring of that and if
 24 the prime can say we're not going to use this sub now
 25 but we're going to use him in year two, then okay.

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1 So that's a challenge.
 2 MS. REAGAN: You mentioned that there
 3 seems to be not enough funding for DBE offices. Is
 4 there a particular area within the DBE staffing
 5 scenario that has been more helpful to you in building
 6 your business or that in general you think there needs
 7 to be more emphasis on?
 8 MR. ALLEN: I think the emphasis should
 9 be on monitoring and tracking because it's tough to --
 10 I have an instance here locally with an agency and was
 11 listed on the project and it's gone for years and we're
 12 still in negotiations with it. And the office didn't
 13 do well by setting up the proper contracts and terms
 14 and conditions, so that has an impact downrange. I'm
 15 just one person and I'm sure this is played over time
 16 and time again throughout the industry. It's not
 17 anybody is not doing their job, it's just not enough
 18 resources to do the job effectively. It's a tough job
 19 to try to get a small business and that they have all
 20 the skills they need to be successful.
 21 I'll pick on contractors. Many contractors are
 22 great craftsmen, but they don't have the business side
 23 or the cost estimating or the cash flow for the lines
 24 of credit, but they're great carpenters, contractors,
 25 what have you. So I think trying to help them, build

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1 Then year two comes or year four, what have you.
 2 MS. REAGAN: Thank you, Mr. Allen.
 3 MS. ROSALES: I have a follow-up. I was
 4 interested in hearing a deeper explanation on how you
 5 went from a one-person shop to a 40-person shop in 20
 6 years. I think that would be interesting for the
 7 record.
 8 MR. ALLEN: Hard work, luck and support
 9 of the DBE program. The phone does not ring unless
 10 those goals are there. I think that's the main thing.
 11 I think after that it's developing a niche market.
 12 This sort of gets into other issues around nix codes
 13 and how we rate those or how we set up the goal.
 14 Probably for example fare collection, there is not a
 15 nix code for fare collection but I was able to get into
 16 that market and grow that niche market but I
 17 couldn't -- that's not classified any place or that
 18 doesn't get any additional points in the disparity
 19 studies. There needs to be some way to move into other
 20 markets. I'm not sure how to do that. I'm trying to
 21 move into other markets now and I get that pushback
 22 because I don't have that nix code. We've done fare
 23 collection which are systems and that's what we focus
 24 on. We are gaining that experience but I don't think
 25 there's a positive training control nix code out there.

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1 them up more will help them be successful. But that's
 2 a tough job to do and it's structural.
 3 It's our nation. There are so many things people come
 4 to the door and are not ready to walk through the door.
 5 The DBE office trying to get them ready, trying to be
 6 successful, working with the prime, they can't do but
 7 so much because it's a private relationship there. But
 8 as much as the agency can do to say this is important,
 9 we value this, and ultimately if you don't do this
 10 prime contractor, you're not going to get the contract
 11 or we're going to take it away from you.
 12 Again, it's the dollars. Prime contractor will
 13 be very responsive to the agency saying those things.
 14 When they say it, they respond.
 15 It's about business and dollars. I don't want
 16 to -- the big businesses also. They have a cash flow
 17 to make and people to feed and what have you there. I
 18 just want the small businesses to get to the table to
 19 split up the pie when it's time to split the pie. And
 20 I think 30 percent is the right number that we should
 21 be trying to achieve. As I said, there's precedence in
 22 that.
 23 I think maybe Pete could come back up here or
 24 maybe James can talk about -- there was another
 25 gentleman at our COMTO meeting that talked about some

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1 other organization that are also at 30 percent. I
 2 think it's the unions. I'm not sure but maybe they can
 3 speak to that issue.

4 MS. REAGAN: I want to congratulate you -
 5 I've known you for a long time - congratulate on the
 6 success of your business and all the businesses that
 7 have come out that are successful, thank you. And are
 8 you currently involved in a mentor/protege program? Do
 9 you work with smaller DBEs or smaller company?

10 MR. ALLEN: Yes, we are successful to
 11 some degree. We put together a team. There were 13
 12 subs on the team and I'm trying to assure those subs
 13 get work, sit down, talk to them, tell them what to do
 14 or at least advise them of what I think they should do
 15 and move in that direction. I do it as much as I can.
 16 Or like this meeting, I sent the meeting out to other
 17 people that I knew and said hey, why don't you come and
 18 speak.

19 I think COMTO is a great organization and I
 20 hope everybody joins. And what else I'm really focused
 21 on are the youth and the kids coming up because we
 22 really need them. I'd like Eric to stand up. Eric is
 23 our city intern for COMTO Northern California, he's a
 24 San Francisco University student studying civil
 25 engineering, and he's with us for the summer. Ten

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1 weeks we're going to go out to Boston, talk to
 2 Secretary Fox, we're going to have a great time. We
 3 have four other interns through BART. We're supporting
 4 them as well. We've supported about 12 students, maybe
 5 15 students over the last three years. This is a
 6 passionate area because we need to bring youth up. I
 7 need somebody behind me.

8 I'm getting tired. I want somebody to take it
 9 and run with it. And I don't see anybody back there,
 10 so I'm concerned. Prop 209 killed a lot of businesses,
 11 so they're not there and there's nobody to continue to
 12 carry the lantern in that regard and it takes a lot of
 13 work. It's not easy.

14 MS. ROSALES: Thank you so much.
 15 (Short break was taken.)

16
 17 MS. ROSALES: Do we have Richard Bowles in the audience
 18 B-o-w-l-e-s? Curtis Brooks? Is Curtis Brooks in the
 19 audience? Doesn't appear to be. Ed Dillard? Olaf
 20 Hansen? Michael Seals?

21 There appears to be no member of the public
 22 present that would like to offer testimony.

23 Bernida has suggested we give it another 15
 24 minutes because we do have a couple of folks who said
 25 they would come between 4:30 and 5:30, and it's not

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1 even 5:00.
 2 (Off the record from 4:48 to 5:02 p.m.)
 3 MS. ROSALES: Good afternoon. We are
 4 reconvened at approximately 5:02 p.m.

5 Mr. Jordan, you weren't here earlier, but we
 6 were inviting speakers to present their testimony, but
 7 before doing so to state their name for the record
 8 because the testimony is being recorded by a court
 9 reporter. So please also spell your last name when you
 10 tell us your name and also the name of your company or
 11 organization if you're representing a company or
 12 organization today.

13 Welcome and feel free.

14 MR. JORDAN: Thank you very much for
 15 inviting me. I am here under a certain number of
 16 threats and whatever, that's it. My name is Frederick
 17 Jordan, J-o-r-d-a-n. I'm the president of F.E. Jordan
 18 Associates, Inc. engineers, planners, construction
 19 managers and environmental engineers, and I'm also the
 20 chairman of the San Francisco African-American Chamber
 21 of Commerce.

22 Comments on the availability statement; I've
 23 made a number of comments over the years and I have my
 24 own opinions, but first of all I want to thank you for
 25 making this effort and this outreach. I've been in

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1 practice here in the City for over 35 years. I've
 2 watched Proposition 209, I watched it coming from zero
 3 in 1988 when the work with Willie Brown to put the
 4 minority business proposition state in being and coming
 5 over the years. Then I worked on Proposition 209
 6 opposing it you might say, so I worked on that and I
 7 watched after Proposition 209 when 80 percent of all
 8 the African-American contractors in this state went out
 9 of business.

10 I sat on the Caltrans State Business Council
 11 for 20 years, and I now sit on the High Speed Rail
 12 Council since it's been in existence, so I've watched
 13 how minority firms have started from almost nothing and
 14 grown.

15 Then in '96 was practically set back 30 some
 16 years. Then I watched at as the agencies took this as
 17 an excuse to do nothing. And over the years I've
 18 watched that there were some agencies like University
 19 of California that fought this and fought hard. There
 20 have been one or two agencies that have not settled for
 21 this level of legitimate discrimination you might say.
 22 I have witnessed the upcoming and the demise.

23 My point is; is that if we look at availability
 24 and disparity you have got to take into consideration
 25 that in 1996 or '97 that 80 percent of all of the black

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1 contractors in the State of California went out of
 2 business, and then you do a disparity study right after
 3 that, what happens is you get a 20 percent
 4 availability.
 5 I was called back to Baltimore by the National
 6 Association of Minority Contractors who were pretty
 7 strong in those days, and they asked me to come back
 8 and restart the National Association of Minority
 9 Contractors because they were founded here right here
 10 in San Francisco is the origination of that. And so I
 11 remember those days vaguely, and so I teamed with
 12 Caltrans District 4 and a number of other agencies, and
 13 in Emeryville we set up for about 19 or 20 contractors
 14 because everybody had been gone. And 82 showed.
 15 And so if you did a disparity study you would
 16 have said - and that's what we did - this was '88, 89,
 17 not 80, '98, 99, so if you had done a disparity study
 18 the year before which is what we went on, we had about
 19 19 places and 82 showed. The district director over
 20 there now can confirm this over at Caltrans District 4.
 21 So I'm saying, which comes first the chicken or
 22 the egg? If you have opportunities available, business
 23 people will come out of the woodwork and take advantage
 24 of that. Someone walked into a meeting the other day
 25 and said there's no capacity in the black community,

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1 there's no such and such. Give availability, give
 2 opportunity and that capacity will come out at any
 3 level.
 4 So that's my position is San Francisco is not
 5 known to be the greatest city in this country for
 6 minority business. Certainly the airport several years
 7 ago went down to Atlanta and did some studying and came
 8 up -- not on this past expansion but the expansion
 9 before that, the one between '95 and 2004, 2005. There
 10 was a great chief engineer down there who brought that
 11 back. I think Atlanta probably is the leader in this
 12 country that shows us how to do it.
 13 I guess I'm just here to say, to try to echo
 14 some voices out here in the community that if you
 15 somehow make it happen and in the professional service
 16 side, you can make it happen. You get all that
 17 selection and qualification and all of that, our firm
 18 has done a thousand projects, we've got 45 awards for
 19 engineering excellence. And all you have to do is to
 20 say what is the best qualified person. You need to
 21 change this around, you need to get out of the box. In
 22 the professional service side you can.
 23 I've lectured Caltrans, I've lectured the High
 24 Speed Rail, a number of agencies that you are - and
 25 I've written articles in the Engineering News Record -

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1 that you are allowed to come into a selection board
 2 room, selection team, and give them the objective of
 3 the agency. The objective of the agency is to have
 4 participation by all segments of the community, and so
 5 I think that there are ways to do it. I think we need
 6 to utilize this disparity study to not put restrictions
 7 on what can be made available, but to open up those
 8 opportunities.
 9 The chamber has tried to work on this, a number
 10 of other agencies, right now the leader in the state,
 11 and I'll say this in closing, is the High Speed Rail.
 12 And the High Speed Rail put out the first billion
 13 dollar section, and the chamber initially filed to get
 14 30 percent small business, 10 percent of it to be
 15 minority business, 3 percent veterans, we couldn't do
 16 it. Barbara Lee and Senator Boxer put their stamp on
 17 that. We formed a statewide organization, we appealed
 18 for executive order, we tried to get congress, I made
 19 seven trips to Washington, and finally we filed a Title
 20 6. And it dropped them, and the reason why it dropped
 21 them is not only did they agree, because the chairman
 22 was also one of BART's own people, but also in that
 23 particular situation we now have when a company says
 24 that, yes I'll do certain minority business
 25 participation, we at the High Speed Rail make that part

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1 of the contract.
 2 We add that, you as a lawyer know, you add that
 3 as part of the contract and if you don't do what you
 4 come in to say that you're doing to win, whether you're
 5 design build contractor or professional service, then
 6 you have a financial liability.
 7 So I guess in closing all I want to say is I
 8 appreciate the reach out and the effort, but we do need
 9 to do better in San Francisco.
 10 African-American participation is one half of
 11 one percent and that's kind of ridiculous. The out
 12 migration is just out migrating every day. It's gone
 13 from 18 percent down to 6 something, less. One of the
 14 reasons why is that there no jobs, no contracts. That
 15 is it.
 16 Whether it's from the mayor, city administrator
 17 or whatever down, executive director of the
 18 transportation agency, you have to make that commitment
 19 and you have got to move it out of the box to afford
 20 that opportunity to all people. Appreciate it. Thank
 21 you very much.
 22 MS. ROSALES: Thank you. We may have
 23 some questions for you.
 24 MR. JORDAN: Sure.
 25 MS. REAGAN: Thank you so much for coming

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1 out Mr. Jordan.
 2 MR. JORDAN: Nice to see you.
 3 MS. REAGAN: You have a long history of
 4 involvement.
 5 You mentioned you have done a thousand jobs and
 6 you have 45 awards, which is excellent. What would you
 7 say to a small company that doesn't have a thousand
 8 projects and doesn't have 45 awards? What are the
 9 things that you would tell them or tell us taking
 10 testimony from you, the kinds of things that would help
 11 someone who has the capacity but not as much of the
 12 experience?
 13 MR. JORDAN: I do know for instance, we
 14 just subcontracted to a company, civil engineering
 15 company down at the airport that was very capable, but
 16 they hadn't gotten into the action. They didn't know
 17 what to do, but they had good capability. They did a
 18 great job for us and such. I always tell people first
 19 of all on the engineering side you are trained, you are
 20 licensed, you can do the work, don't ever think that a
 21 big firm that comes in with some hired hands just out
 22 of school is going to be able to do a better job.
 23 First thing I tell them to do is get registered in the
 24 City as an LBE and then also go to Caltrans and get
 25 registered as a DBE, and that's one hand up to get

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1 started. And then I tell them to network with the big
 2 firms so if you got on some of those teams, they have
 3 networking sessions. They are important because some of
 4 these sessions, agencies, I don't know that much about
 5 the City, but I sit on the board of Caltrans and High
 6 Speed Rail, they make those contractors, the primes,
 7 come in. That's necessary. I think we do some of that
 8 here in the City. They make them.
 9 On the construction side is a little more
 10 difficult than on the professional service side.
 11 Professional services is just a matter of making up
 12 your mind that you're going to make this contract. I
 13 know one thing, I'm doing a job for one the agencies as
 14 here in the City, and believe me, I don't do a whole
 15 lot here in the City. Someone said I want you to use
 16 this person and I want you to use that person, that
 17 company. And I say, "Oh that's all right don't ask any
 18 questions, do it." That could happen. Do it. These
 19 were two-, three-person firms. One was an individual,
 20 the other one had three people.
 21 So to respond to your question, the first thing
 22 I do is to tell them to get certified. That's supposed
 23 to help them. Then to get into the books, go to the
 24 networking sessions. Don't be afraid to joint venture
 25 with another minority firm or woman owned firm. You

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1 have to look at what can give you the seven points or
 2 five points you get if you're minority prime.
 3 If you get in there, you're not worried about
 4 the subcontractor portion. If you're really going to
 5 do business, you have to be a prime, to have your own
 6 destiny. Otherwise, you're going to be at the hands of
 7 a prime who is going to give you crap, and you're a
 8 civil engineer and you're going to end up doing
 9 surveying, that kind of thing. That's what I tell them
 10 to do is go for it and just try to be a prime and as
 11 you go up the road and work, team, go for it.
 12 My success, and I can't say I've had a whole
 13 lot of success, but I've done a thousand jobs, has been
 14 to team with the best firms I can find. In order to do
 15 that team, so a lot of people ask the question, "How do
 16 you go out and team with HNTB?" That's because in the
 17 old days when we were doing bridges, there was a firm
 18 out in Phoenix named HNTB that had no office here. They
 19 said, "How do we get it here?" I said, "Come in here
 20 and you can use my office." We went after the 98th
 21 Street Bridge, we won that and lost other one. Next
 22 thing you know we did other bridges in the East Bay, the
 23 Cypress, one of the sections. But now they up and move
 24 and they forgot us. That's all right, but most of the
 25 time to tell a firm to try to find something that that

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1 firm is interested in, many times when the local firms
 2 rebut you, then you go afar.
 3 I went to -- I couldn't get a job with PUC even
 4 though I'd been working for them for years. I'm
 5 talking San Francisco Public Utility. I said okay, so
 6 I went to Florida and brought in a big firm and the
 7 local guys didn't like that at all. They said, "We
 8 better take care of this guy. Sooner or later he's
 9 going to have another big firm in here to take a piece
 10 of our action."
 11 MS. REAGAN: And what would you say to
 12 SFMTA? Do you have ideas?
 13 MR. JORDAN: Did you say what would I
 14 say?
 15 MS. REAGAN: What would you say to SFMTA
 16 that it's conducting disparity and availability study?
 17 What would you say to them to open up opportunities
 18 further for DBEs?
 19 MR. JORDAN: I think in closing -- I think
 20 SFMTA -- I think first of all the executive director and
 21 the executives need to give the order that we need to
 22 have minorities and women participate in this. It
 23 needs to come from the top. And then in order to
 24 enforce that, there needs to be something that they
 25 can do, something like Google. Google said -- in putting

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1 up three hundred million to get diversity, they said,
 2 "We're also going to evaluate you as to whether or not
 3 you obtain these objectives." I think when people began
 4 to realize that their pay may be based on that, it can
 5 go all the way from that to --
 6 One time I was called up by the Corps of
 7 Engineers up in Sacramento as an example, and the
 8 colonel was in there and he says, "I didn't know you
 9 guys were an African-American firm, but I was always
 10 curious because I'd see you coming through from time to
 11 time and you look like you were quite capable, so I
 12 just wanted to meet you and see what's going on. But
 13 here you're an African-American firm." So he says,
 14 "Can you give me about half an hour and come back in
 15 the room?"
 16 So I came back in the room in half an hour,
 17 he had some of the majors and heads of the departments
 18 there. He sat down and he said, "Gentlemen, here's a
 19 very, very capable firm. And I don't know why he
 20 hasn't gotten a job with the Corps of Engineers of
 21 Sacramento, but if he doesn't get a job within the next
 22 couple weeks, somebody's head is going to roll." Got
 23 right up, walked out of the room. It was about a
 24 four-minute meeting.
 25 In about a week-and-a-half I had a job, did

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1 all the studies down here, and put us in there. It can
 2 go from a military style to a mandate. Then I think
 3 you have to walk around that Prop 209. Willie Brown
 4 ignored Prop 209. He just did whatever needs to be
 5 done, and he dared anybody to say anything, and they
 6 didn't.
 7 So I think there has to be a level of audacity
 8 and always a level to say we cannot discriminate. We
 9 have to make these opportunities available and we can't
 10 just go out on the street and find a capable person.
 11 We have to get them in the hopper. We need affirmative
 12 action. I don't care what anybody says about
 13 preference and everything, but President Johnson said
 14 you have got to have affirmative action to bring people
 15 through, and we've got to practice that and we always
 16 can go back to non-discrimination. You can not
 17 discriminate. Simple as that.
 18 MS. ROSALES: Thank you.
 19 I have a question about the African-American
 20 Chamber membership. Can you give us a sense of the
 21 number of members you have in the chamber?
 22 MR. JORDAN: We represent 3- or 400
 23 people that's who we go out to in terms of membership.
 24 They're not all practicing business people. There are
 25 a lot of supporters you might say. We don't know many

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1 people who work for agencies like transportation agency
 2 doing certain things on the side, but our roles are
 3 diminishing and we're losing ground by the day, I would
 4 say.
 5 That's who we represent and then not only that,
 6 we have many of the chambers come to us to follow our
 7 model. The Monterey chamber just called in. They're
 8 trying to do everything to help establish the Silicon
 9 Valley Chamber. The Sacramento Chamber has been down.
 10 So we have a following considerably greater and we're
 11 constantly reaching out because opportunities in this
 12 city are limited. We even have trade missions. A
 13 couple years ago we went to Tanzania, we got a few
 14 projects on that. We've been down to Fiji, the prime
 15 minister came down to a little office here in San
 16 Francisco.
 17 We try to reach out statewide as such, so our
 18 membership is most -- tell you the truth, about 20 to
 19 30 percent of our membership is in Oakland.
 20 MS. ROSALES: Well, Alameda County is one
 21 of the market areas for this study as well. It's San
 22 Francisco, San Mateo County, Alameda County, Santa
 23 Clara for professional, and then additionally for
 24 construction also Los Angeles County. So all of your
 25 testimony is obviously relevant, not just in Northern

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1 California. But when you talk about statewide
 2 experience, obviously it's relevant as well since we're
 3 looking at the industry. The transportation industry in
 4 particular.
 5 But one question I had is just to get a sense,
 6 because we're talking about a DBE study, of the members
 7 of your chamber that are businesses, doesn't matter
 8 where they're located, let's just say State of
 9 California, would you say that you have a good
 10 representation of certified DBEs?
 11 MR. JORDAN: I would say that we do. I
 12 would say statewide that is not so. And I think we do
 13 because we market that. We almost -- I put a guy in a
 14 car and took him to Sacramento to get certified by
 15 Caltrans. So because we sit on this, two of us sit on
 16 both Caltrans and High Speed Rail and then of course we
 17 have somebody on BART, we have people with MTA. We try
 18 to sit on any agency or be associated with any agency
 19 that potentially has opportunities for our membership.
 20 So therefore we are constantly -- I would say our
 21 reputation is pretty good because we are in an urban
 22 area.
 23 I would say you get over to Oakland, a lot of
 24 people are just so -- they have no confidence in this.
 25 I've heard them say, "I don't waste my time to do

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1 that." Let's face it, in this state about 95 percent
2 go to majority only white-owned firm. 95 percent of
3 the work goes to them. That's it. That is true. Ask
4 anyone to take me on.

5 But for us yes; statewide I wouldn't say so.
6 When you get out of the counties and everything -- I
7 just had one of the contractors, we've had a number of
8 firms come out to our office, somewhere around 15 to 20.

9 One of the firms that come out -- we're
10 construction managers, so we have licensed contractors
11 in our office as well as design engineers. So one of
12 the contractors came through the office today and he
13 does work, actual road work as a prime. He got a
14 little small prime contract from Caltrans, so I'm
15 always pushing them and everything, but at first he
16 didn't get certified, but I got him certified as such.
17 That's a long answer to your question.

18 MS. ROSALES: No, it's a proper answer
19 because I think one of scopes, if you will, of inquiry
20 is how easy is it to be certified. We would be looking
21 at not just certified DBEs, but minority and woman
22 businesses who could be certified as DBEs. And one of
23 the issues would be if they're not already certified,
24 why not? You're answering some of those why not. If
25 there's any sentiment within your membership, I would

1 somebody out there and to show the public that here,
2 you can do this too.

3 Some years ago, I got this before to do what
4 they call a demonstration project, and so we took seven
5 construction management projects that were coming up.
6 At the time there was an African-American director, I
7 can't think of his name -- he has been the only one from
8 District 4. This is before the current director, his
9 predecessor. And so I said, "Look, take this and make it
10 a demonstration project. You can do that, and you set
11 it up and you put a goal on it. The goal is 50
12 percent." And so they ran that through and people, some
13 of the guys got on there and did a great job and hey,
14 they're moving. They're doing great.

15 I think that's another way to do it. Now, we
16 have been after Caltrans in terms of the chamber. The
17 chamber's got a lot of lawsuits, but we've been after
18 Caltrans to FHWA to declare African-Americans on the
19 professional service side, egregious discrimination
20 because Caltrans has not retained an African-American
21 firm in 17 years. And we think that's just out there.
22 So the director, he's dancing and doing a whole bunch
23 of stuff. We have even gone all the way to Washington
24 on that.

25 The last point I made in term of going out of

1 encourage your members to write about their
2 experiences, and especially those that basically say
3 they think they're wasting their time with the DBE
4 certification process, I think that's important here.
5 It will eventually be part of the record that will be
6 presented to the USDOT. So any anecdotes in that
7 regard would be welcome.

8 MR. JORDAN: If I could make this comment.
9 In terms of -- yes, there are a lot of firms who
10 feel this is a frustrating experience to go through
11 this DBE process and certification, because for
12 Caltrans it's six months or three to six months to get
13 a state certified DBE. LBE in San Francisco I don't
14 know if it's much better.

15 We've had an office in Oakland for 25 years, so
16 we're certified with Alameda County, with the Port.
17 The Port is pretty good, the City doesn't mean a
18 thing. Oakland now is worse than San Francisco. It
19 used to be much better, but I think just recently the
20 Port of Oakland began to reach out, and I was
21 surprised. I'm going to have to go to a meeting and
22 thank them. We submitted for a job and lost, but I'm
23 so happy that another minority contractor beat us, and
24 we don't get beat too often. But I think the best
25 thing to do is for an agency to have a model, to put

1 the box, I just had a visit to Assemblyman Chu. I'm
2 always looking at the overall, our chamber established
3 the California Black Chamber right here in San
4 Francisco. This is my third time around as president.
5 My second time around, my first maybe, I don't know
6 when, but in the early '90s we established the National
7 Black Chamber, so I'm always looking at the broader
8 picture.

9 Let me just leave this. About a few years ago
10 there was a senator from Los Angeles named Price. He is
11 an alumnus of mine, so people couldn't figure out how
12 come we were in the corners drinking all the time. So
13 we figured that what we would do is come up with a
14 Senate Bill called 1250, I believe that was it, and
15 what we said in this bill we would have prequalified --
16 in other words, we would get all the firms that were
17 qualified to do transportation work, whether it's in
18 transit, we would look at their capability. If they
19 were qualified, we would prequalify them and put them
20 on a list. And then in that list, it really came about
21 of my frustration with BART. That list, when a firm
22 wins, he'd go to bottom of the list. In that way,
23 eventually every firm would get a project if he's
24 qualified, and this is public money.

25 So that particular bill, and then we had

1 sections, you know, of it like 0 to 500,000 the bigger
 2 firms couldn't come down in this pocket, and then from
 3 500,000 to five million would be the midlevel firms and
 4 over five million would be the big boys. But if they
 5 chose over five million, they couldn't come below 5
 6 million. Everybody was prequalified in this pile to be
 7 on the list and it passed the senate. We lost by one
 8 vote in the assembly committee.

9 That was heartbreaking because this
 10 organization APAC, Association Professionals and
 11 Contractors that the chamber helped to found, they
 12 pulled in. At first we did it out of our own money, we
 13 financed that bill, then we had APAC to come to us and
 14 we helped with 14 organizations from Eureka to San
 15 Diego to do this. And I have been trying to get
 16 Assemblyman Chu to take that fight back up because I
 17 think in that way there are firms in this city that are
 18 qualified and have never gotten a job. If they did
 19 that, they would eventually get a job.

20 Then, we found out by Caltrans one of the
 21 managers at Caltrans did a study that 32 states do this
 22 and 32 states have this prequalified list. And boy
 23 that was part of us getting it passed. And that was a
 24 Caltrans study. They originally said they would not
 25 object, they can't do it themselves, they need

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1 legislation. Last minute they buried us and it was
 2 illegal. Because Caltrans, just like SFTA, is not
 3 supposed to go in and testify on a bill that involves
 4 them. And it was terribly illegal. That's the kind of
 5 things and I can tell you it was brought down by -- I
 6 initially submitted it for BART because we went after
 7 an 18-million-dollar contract in a joint venture with
 8 Hill.

9 They finally said -- we spent a bunch of money
 10 and they finally said, "We think we'll take the same
 11 contractors again." And those are five-year contracts.
 12 And we said, "That is not fair, just to turn around and
 13 do that. We were rated number one, two or something
 14 like that." That's when I got with my colleague,
 15 Senator Price, and we came. And I'd like to see some
 16 of that. BART now, what do they call that category
 17 that they have that they won't let the other big firms
 18 get involved?

19 MS. REAGAN:: Small business set-asides?
 20 MR. JORDAN: It's not a set-aside. In a
 21 way it is. They call it emerging for minority.
 22 MS. ROSALES: Market shelter?
 23 MR. JORDAN: They call it emerging --
 24 MS. ROSALES: Emerging business?
 25 MR. JORDAN: Emerging business. And they

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1 tell the big firms, "Don't come in because you're going
 2 to waste your time. If you get this on the side it's
 3 not official." If somebody said they did, they'll deny
 4 it. But it's called the emerging something. We picked
 5 up the first contract on that. I forgot. James McGee
 6 would know. And so now the airport --
 7 (Off-the-record discussion.)

8 But that whole concept now is picked up by the
 9 San Francisco Airport in their own extent. What they
 10 do is they will shortlist, they will prequalify ten
 11 firms and you're familiar with that, maybe ten firms in
 12 a consortium, and make sure that half of that ten firms
 13 or more have minority partners. And they'll bring that
 14 in, and I remember the first time they did it we did
 15 have a venture with Hill and so we won the first
 16 project, which was a little project, and I told Hill
 17 leave that project alone. Then we came back and won
 18 the second one because the second one involved design
 19 not only construction management. The second one, I'm
 20 sitting in the office and they called and said Fred,
 21 "You can't win two. You're on the bottom of the list
 22 now. So you have to give it up to whatever." That's
 23 one time I lost and I was very pleased that I lost.
 24 That's what they do. The airport is adopting this.
 25 Speaking of set-asides, the Los Angeles MTA

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1 does have a set-aside program. And I don't know the
 2 details of that, but it's my understanding that when we
 3 all come to the big meeting to talk about the MTA has a
 4 set-aside. And the former chief engineer was the
 5 director of District 7 here and he was the one I teamed
 6 with to come up with this SB1215 for the
 7 prequalification.

8 But I can say that there are different ways to
 9 get involved, one way that was used here in the City
 10 quickly was PUC Hall on -- Kelly did experiment one time
 11 and said everybody submit online, no glitzy proposals,
 12 just put down your basic qualification, your basic
 13 experience, no name, and we knocked them out. That was
 14 the first time. We'd been trying to get in for years.
 15 So there are different ways of doing it.

16 I just wrote a paper, maybe I can find it, that
 17 shows about eight or ten different ways you can reach
 18 out of the box and do something. I'm sorry for taking
 19 up all this time.

20 MS. ROSALES: Thank you very much.
 21 (Off-the-record discussion.)
 22 MS. ROSALES: Okay, so before we close
 23 because it's close to 6:00, I'm just going to call out
 24 the names Michael Seals, Richard Bowles, Curtis Brooks,
 25 Ed Dillard, and Olive Hanson. Those are the folks that

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1 signed up to speak who have not been able to speak.
 2 There will be an opportunity for written comments. We
 3 will send a notice out to others. We can wait a few
 4 minutes.
 5 (Short recess taken.)
 6 MS. ROSALES: Hi. Are you Mr. Bowles?
 7 MR. BOWLES: I am.
 8 MS. ROSALES: Welcome.
 9 MR. BOWLES: Good to be here.
 10 MS. ROSALES: We're back on the record.
 11 It is approximately 6:00 p.m. Welcome.
 12 Mr. BOWLES: Thank you very much.
 13 MS. ROSALES: Just so that you know, since
 14 your weren't here when we made the announcement, all
 15 folks testifying, we would ask them to state their name
 16 for the record, because it's being recorded, and to
 17 spell the last time, also to identify your company or
 18 organization if you are representing or speaking on
 19 behalf of either. If you do have something in writing
 20 that you'd like to submit for the record.
 21 MR. BOWLES: I would submit something
 22 subsequent to this hearing.
 23 MS. ROSALES: Welcome.
 24 MR. BOWLES: Thank you very much. I am
 25 pleased to be here. And I couldn't pass up an

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1 Outreach and Development Committee of that
 2 organization. And it is for that reason I was made
 3 aware of this opportunity to speak on these issues and
 4 I have a few statements to make.
 5 First of all, before I speak specifically to
 6 the bullet points you've identified with regard to
 7 business perceptions, bidding and fair treatment by my
 8 race, African-American, a black man in America, I'd
 9 like to speak to if it were more a straightforward
 10 process, we would deal with things on a basis of
 11 parody.
 12 So parody from a race-based standpoint would
 13 dictate here based upon my limited research that if
 14 there's 48 percent ethnic minorities that make up the
 15 Bay Area, on a parody basis, we ought to have 48
 16 percent of the contract dollars. Now with that, I
 17 should be able to just walk away and say put it in
 18 place. But I know that's unlikely to happen.
 19 I just want to start from a simplistic
 20 standpoint recognizing and reinforcing that there is a
 21 need for race-based programs. Race-neutral programs
 22 could and maybe to some degree have worked based upon
 23 my experiences in the various regions of the country
 24 that I've worked, but only when there's programs in
 25 place that have teeth, that are meaningful, and there

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1 opportunity to share with you my background knowledge
 2 and experience and to make statements as it relates to
 3 the disparity study under way and speak to the various
 4 issues that you have requested us to speak to.
 5 Again, my name is Richard Bowles, B-o-w-l-e-s.
 6 I have more than 25 years in the construction industry,
 7 20 of which was as a business owner. Currently I am
 8 employed by a major construction firm addressing a
 9 variety of construction site and management,
 10 administrative management functions. In that 20 years
 11 as I indicated, I owned and operated a construction
 12 business along with my family the Midwest, and in fact
 13 in 1987, we were recognized as the outstanding MBE firm
 14 of the year that dates me back when there was more
 15 of a meaningful program before we moved, what was
 16 intended to be something that would replace a minority
 17 and race-based program.
 18 Irrespective, I -- currently in addition to my job
 19 functions with a major construction company in town, I
 20 am a member of the National Association of Minority
 21 Contractors of which I have been a chapter president
 22 for state chapter in the past and a board of directors
 23 member. I'm also currently a member of the Conference
 24 of Minority Transportation Officials where I've
 25 recently taken on the task and co-chair the DBE Hub

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1 is a spear of cooperation beyond what people would tell
 2 us the law allows. They'll say based upon our
 3 disparity study, we can't do or shouldn't do a race
 4 based program. But again my experience is we can
 5 rationalize any statistics that we want, so I'm going
 6 to rationalize some things for you.
 7 If we consider the degree to which goals have
 8 been or will be placed on projects, we really need to
 9 consider matching the capacity of the businesses
 10 whether they're construction, consultant or other
 11 service providers and vendors with the opportunities.
 12 And too often that really isn't defined well enough in
 13 my opinion.
 14 So let me get to some of the issues that are
 15 defined and that you've asked us to speak to. But
 16 first of all, in terms of perceptions about experiences
 17 doing business in this local marketplace, I will
 18 acknowledge that I have not spent more than a few years
 19 here and that's been under the employ of a company that
 20 pays me well enough, but that's a job. Within a matter
 21 of years, I plan to retire from that job and re-enter
 22 the marketplace as a contractor, so I have to decide
 23 whether this is the right place for me to go into
 24 business.
 25 I know how to move around elsewhere in the

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1 country, and what I have to consider is whether the
 2 things that you want us to speak to, whether my
 3 experience doing business here or my experiences within
 4 the construction industry would lend itself to afford
 5 me something meaningful. Quite frankly, I'm looking for
 6 something meaningful in terms of re-entering the
 7 construction industry. I think my skills and the
 8 people I would go into business with would be able to
 9 be prequalified in various construction licensed
 10 capabilities and do work, but what I really have to do
 11 is determine whether I'd be able to leave a legacy for
 12 the next generation as I was able to be benefited from.

13 My father who was in business in the Midwest,
 14 specifically in the states of Illinois and Wisconsin
 15 where we primarily operated from. So for an extended
 16 period of time, we had the benefit of having a second
 17 generation firm, which is rare within the minority
 18 business community. It's not frequent enough, but then
 19 we need to ask why is that?

20 Let's get on to other things. Where do
 21 businesses encounter barriers or difficulties when
 22 bidding as primes, subs or suppliers? I think that I
 23 could say absolutely there are barriers everywhere
 24 around the country, but you're asking about this
 25 location here in the Bay Area for what MTA San

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1 Francisco is, the jurisdiction in which you're covering.
 2 So based upon what I have been able to analyze,
 3 there continue to be barriers. I think it's the mere
 4 fact that you don't have a significant number of ethnic
 5 minority prime contractors or even consultant engineers
 6 that are able to, in a responsive, responsible way,
 7 pursue some of the contract opportunities. Everybody
 8 has to make good business decisions and every time a
 9 contractor bids or responds to an RFP, it takes time.
 10 Very often ethnic minorities are companies with small
 11 staffs, so very often the business owner is going to
 12 work his job, whatever they've got on the plate during
 13 the day and come at night and put in additional hours
 14 to respond to bids to try to be, whether they're
 15 bidding or quoting to primes. That takes time. It
 16 takes effort.

17 The mere fact that you end up putting in more
 18 hours than your counterparts automatically makes your
 19 hourly rate less than their's. So that's one thing we
 20 often overlook but is always there. So how often are
 21 we putting in any kind of whether race-neutral or race-
 22 based goals for suppliers? A big area overlooked. I'm
 23 aware of several ethnic minority suppliers who have to
 24 compete with those who are already at the table. One
 25 of the most difficult things there are for any person

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1 in business is breaking into a new area, particularly
 2 when you're not in the good old boys club. It makes it
 3 that much more difficult. Let's not ignore the plight
 4 of suppliers and other vendors.

5 As it relates to whether business owners
 6 believe they have been treated fairly or unfairly based
 7 upon their race ethnicity or gender, I think -- I know
 8 it's easy for me to say, but there is absolutely
 9 unfairness. And even though there's been great strides
 10 in all the various markets around the country, there
 11 continues to be insidious years of barriers that are
 12 put in place. Even if you're getting a smile or
 13 offered a cup of coffee or a doughnut, that's not
 14 enough. Being invited to the party, I think that
 15 minority race-based firms want to be fully invited so
 16 they can participate in all the opportunities there
 17 might be.

18 In terms of ethnicity in contractors, that's
 19 where we have got to look within and certainly, your
 20 programs allow you to consider the various races within
 21 the program. And I think what you'll find is to the
 22 extent that I believe the information I found that
 23 shows that, for example, African-American or black
 24 contractors are seven to eight percent of the
 25 population, but yet if we look at the number that are

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1 part of your overall certified groups, that are actually
 2 pursuing and achieving business goals, it's
 3 significantly less than that. Certainly that would
 4 justify looking at the racial disparity. Certainly,
 5 other groups, ethnic and gender groups within the
 6 categories you would be looking at, I'm sure, could speak
 7 to the disparities they've experienced. I think
 8 there's significant things that could and should be
 9 done.

10 So rather than continue on with general
 11 statements, let me just conclude by saying black lives
 12 matter. Black economic lives matter. Asian economic
 13 lives matter, Hispanic and other lives of those
 14 individuals who would represent a race-based program
 15 matter. Until a program is put in place that has teeth
 16 that considers the real plight of the race, the various
 17 races as well as the gender, although I think for the
 18 most part over the past couple of decades white females
 19 have done considerably better than the other races
 20 included. And to the credit, you need to make up for
 21 many lost decades of discrimination as we all do.

22 So I would be glad to provide subsequent to
 23 this some other things in writing. I unfortunately had
 24 a busy day and wasn't able to gather everything, but I
 25 hope the comments I've made are received in the spirit

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1 they're offered and you allow me to provide more
 2 details later, I'd be glad to do it. Thank you very
 3 much.
 4 MS. REAGAN: You mentioned seven percent
 5 African-Americans in the industry if you know where
 6 that figure comes from, great. If you do, does it
 7 represent this local area?
 8 MR. BOWLES: That would be the broader --
 9 MS. REAGAN: Nationally?
 10 MR. BOWLES: The broader Bay Area. I was
 11 really referring to the racial component.
 12 MS. REAGAN: Okay.
 13 MR. BOWLES: Based upon the limited time
 14 I did have to research that. But I do have statistics
 15 that I can gather from National Association of Minority
 16 Contractors that will give us some more specific
 17 information as relates to that. So again, if the
 18 process allows me to submit something subsequent then I
 19 will be glad to do that.
 20 MS. REAGAN: And I just want to thank you
 21 for coming out. I know it was kind of hard for you to
 22 get here, but thank you for making it.
 23 MR. BOWLES: Life in the city.
 24 MS. ROSALES: Yes. I also thank you and
 25 I'd like to let you know in the reception area there is


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1 industry practices in the relevant markets, which have
 2 been identified here, San Francisco County, San Mateo
 3 County, Santa Clara County and Alameda County for
 4 professional services and also for construction those
 5 four counties, but additionally Los Angeles County for
 6 construction. Any transportation related studies in
 7 the State of California would certainly qualify.
 8 NAMAC, any one of any data of any study, the more
 9 recent the better because we will include that all as
 10 part of the study.
 11 MR. BOWLES: Great. We will help you
 12 with this very important mission so we can all arrive
 13 at the finish line and get paid.
 14 MS. ROSALES: Okay. So it's now 6:22 and
 15 the session was to conclude at 6:00 and the event was
 16 to close as 6:30. So I think we're right on schedule.
 17 With that, the hearing closes at 6:23 p.m. Thank you.
 18 (Off the record at 6:23 p.m.)
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1 some business cards and there is one for me, one of my
 2 business cards, Mara Rosales, but you can take any one
 3 of them. Karla Rosales is part of Rosales Business
 4 Partners as well, and you can send us your comments to
 5 any one of those two emails.
 6 We will be sending out another email blast to
 7 everyone, not only here who participated, but who is on
 8 the list of firms that have been identified as being in
 9 the market areas to give them an opportunity to comment
 10 also in writing. So this is not the last opportunity.
 11 Any literature you have, any studies, the more
 12 contemporary or current and relevant to Northern
 13 California, for construction would even include Los
 14 Angeles County, we would welcome receiving that
 15 information.
 16 MR. BOWLES: I understand certainly it
 17 needs to be -- the data and information needs to be
 18 specific to the agency that's conducting the study. So
 19 if we can start with your agency I'm not sure what the
 20 dollars represent. But we won't turn our back to any
 21 dollars that are members that the minority business
 22 community can benefit from.
 23 MS. ROSALES: And I should clarify that
 24 it's not just practices with SFMTA, but it also expands
 25 to the City and County of San Francisco. But also any

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1 I do hereby certify that the foregoing meeting
 2 was taken at the time and place therein stated; that
 3 the testimony of said parties was reported by me, a
 4 shorthand reporter and a disinterested person, and was
 5 under my supervision thereafter transcribed into
 6 typewriting.
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 9 
 10 _____
 11 CHERIE L. LUBASH
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APPENDIX D

APPENDIX D

Entry and Advancement in the Construction, Professional Services, and Other Services Industries

Federal courts have found that Congress “spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry.”⁴¹ Congress found that discrimination had impeded the formation of qualified minority-owned businesses.

In the 2015 SFMTA availability and utilization study, the Study Team examined whether some of the barriers to business formation that Congress found for MBE/WBEs also appear to occur in SFMTA’s market area. One potential source of barriers to formation is barriers associated with entry and advancement in the construction, professional services, and other services industries. Appendix D examines recent data on education, employment, and workplace advancement that may ultimately influence business formation in the construction, professional services, and other services industries in SFMTA’s market area.⁴²

Appendix D examines entry and advancement of different race/ethnic and gender groups in the construction, professional services, and other services industries. Several other report appendices analyze other aspects of local marketplace conditions. Appendix E explores business ownership and Appendix G considers the success of businesses. Related to both of those topics, Appendix F presents an examination of access to capital. Together, those appendices present quantitative information concerning marketplace conditions in the construction, professional services, and other services industries.

Construction Industry

The Study Team first examined the construction industry and how education, training, employment, and advancement may affect the number of businesses that individuals of different races/ethnicities and genders owned in the relevant SFMTA construction marketplace in 2000 and 2008-2012.⁴³

⁴¹ *Sherbrooke Turf, Inc.*, 345 F.3d at 970, citing *Adarand Constructors, Inc.*, 228 F.3d at 1167 – 76; *Western States Paving Co. v. Washington State DOT*, *supra*, at 922.

⁴² In this appendix and other appendices that present information about local marketplace conditions, information for “professional services” refers to architectural, engineering and related services and advertising and related industries. “Other services” refers to automotive repair and maintenance; investigation and security service; printing and related support activities; and bus service and urban transit.

⁴³ In this appendix and other marketplace appendices, SFMTA’s construction industry is defined as San Francisco, Alameda, San Mateo, Santa Clara, and Los Angeles Counties. SFMTA’s professional service and other services marketplaces are defined as San Francisco, Alameda, San Mateo, and Santa Clara Counties.

Education. Formal education beyond high school is not a prerequisite for most construction jobs. For that reason, the construction industry often attracts individuals who have lower levels of educational attainment. Most construction industry employees in SFMTA’s market area do not have a four-year college degree. Based on the 2000 Census, 25 percent of workers in the construction industry in SFMTA’s market area were high school graduates with no post-secondary education and 36 percent had not finished high school. Only 12 percent of those working in the construction industry had a four-year college degree or higher, compared to nearly 35 percent of all workers.

Race/ethnicity. Hispanic Americans represented an especially large pool of workers in SFMTA’s market area with no post-secondary education. In 2000, only 11 percent of all Hispanic American workers 25 and older held at least a four-year degree. That figure rose to 13 percent in 2008-2012, but was still far below non-Hispanic whites working in the market area (55%). The percentage of Black American (30%) and Native American (31%) workers in SFMTA’s market area with a four-year college degree was also substantially lower than that of non-Hispanic whites in 2008-2012.

Based on educational requirements of entry-level jobs and the limited education beyond high school for many Black Americans, Native Americans, and Hispanic Americans in SFMTA’s market area, one would expect a relatively high representation of those groups in the construction industry, especially in entry-level positions.

In contrast to Black, Hispanic, and Native Americans, a relatively high percentage (82%) of Subcontinent Asian American workers 25 and older in SFMTA’s market area had four-year college degrees in 2008-2012. Given the high levels of education for Subcontinent Asian Americans in SFMTA’s market area, the representation of those groups in the construction industry might be low relative to non-Hispanic whites.

Females. In SFMTA’s market area, female workers age 25 or over have more education, on average, than men. Based on 2008-2012 data, 40 percent of female workers age 25 and over had at least a four-year degree, compared to 37 percent of males.

Apprenticeship and training. Training in the construction industry is largely on-the-job and through trade schools and apprenticeship programs. Entry-level jobs for workers out of high school are often for laborers, helpers, or apprentices. More skilled positions in the construction industry may require additional training through a technical or trade school or through an apprenticeship or other employer-provided training program. Apprenticeship programs can be developed by employers, trade associations, trade unions, and other groups.

Workers can enter apprenticeship programs from high school or trade school. Apprenticeships have traditionally been three- to five-year programs that combine on-the-job training with classroom instruction.⁴⁴ Opportunities for those programs across race/ethnicity are discussed later in Appendix D.

Employment. With educational attainment for minorities and women as context, the Study Team examined employment in the construction industry in SFMTA’s market area. Figure D-1 presents data

⁴⁴ Bureau of Labor Statistics, U.S. Department of Labor. 2006-07. “Construction.” *Career Guide to Industries*. <http://www.bls.gov/oco/cg/cgs003.htm> (accessed February 15, 2007).

from 1990, 2000, and 2008-2012 to compare the demographic composition of the construction industry with the total workforce in SFMTA's market area, and in the United States.

Race/ethnicity. Based on 2008-2012 ACS data, 71 percent of people working in the construction industry in SFMTA's market area were minority, up from 61 percent in 2000. Almost all of the increase in minority construction workers between 2000 and 2008-2012 was due to growth in the number of Hispanic American construction workers. Of the people working in construction in 2008-2012:

- 59 percent were Hispanic Americans;
- 3 percent were Black Americans;
- 7 percent were Asian-Pacific Americans;
- 1 percent were Native Americans; and
- Less than 1 percent were Subcontinent Asian Americans.

In SFMTA's market area, Hispanic Americans made up a much greater share of workers in construction than in the economy as a whole, representing 59 percent of construction workers compared with 38 percent of workers in all industries. In contrast, Black Americans, Asian-Pacific Americans, and Subcontinent Asian Americans were less likely to work in construction than in other industries.

- The percentage of SFMTA market area construction workers who were Black American declined from 2000 to 2008-2012. Average educational attainment of Black Americans is consistent with requirements for construction jobs, so education does not explain the relatively low number of Black American workers in the construction industry. Several studies throughout the United States have argued that race discrimination by construction unions has held down employment of Black Americans in construction trades.⁴⁵ Some of the evidence for and against that position is discussed later in this section.
- Asian-Pacific Americans were 7 percent of the construction workforce and 18 percent of all workers in SFMTA's market area in 2008-2012. The fact that Asian-Pacific Americans were more likely than other groups to go to college in 2008-2012 may explain part of that difference.
- Under-representation of Subcontinent Asian Americans in the construction workforce is evident in both 2000 and 2008-2012 in SFMTA's market area.⁴⁶ Relatively high educational achievement for Subcontinent Asian Americans may explain part of that difference.
- The number of non-Hispanic whites working in the construction industry in 2008-2012 was substantially less than what one might anticipate given their representation in the overall workforce.

⁴⁵ Waldinger, Roger and Thomas Bailey. 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction." *Politics & Society*, 19(3).

⁴⁶ Note that Census definitions of race and ethnicity have changed over time, which affects comparability of statistics from one census year to the next.

Minority groups in the construction industry in SFMTA's market area make up a much larger percentage of the industry workforce than do minority groups in California. In 2008-2012, minorities accounted for 71 percent of the construction industry, but only 57 percent of the California construction industry.

Gender. There were also large differences between the percentage of all workers who were women and the representation of women in the construction industry in SFMTA's market area in 2008-2012. During those years, women represented 45 percent of workers in all industries but only 8 percent of construction workers. That difference was similar for California and for the United States as a whole. The share of construction workers who were women declined between 2000 and 2008-2012.

Figure D-1.
Demographics of workers in construction and all industries, 1990, 2000 and 2008-2012

SFMTA's market area	All industries			Construction		
	1990 (n= 330,289)	2000 (n=327,400)	2008-2012 (n=378,881)	1990 (n=18,918)	2000 (n=16,804)	2008-2012 (n=20,896)
Race/ethnicity						
Black American	9.0 %	8.6 %	7.1 %	5.9 % **	5.1 % **	3.3 % **
Asian-Pacific American	11.9	16.0	17.8	5.7 **	6.9 **	7.4 **
Subcontinent Asian American	0.7	1.6	2.3	0.4 **	0.4 **	0.3 **
Hispanic American	28.1	31.0	37.9	37.5 **	46.4 **	59.4 **
Native American	0.5	0.8	0.6	0.6	1.0	0.7
Other minority group	0.2	1.1	0.3	0.2	1.1	0.3
Total minority	50.4 %	59.0 %	66.1 %	50.2 %	60.9 %	71.4 %
Non-Hispanic white	49.6	41.0	33.9	49.8	39.1 **	28.6 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	43.9 %	45.3 %	45.5 %	9.5 % **	9.7 % **	7.9 % **
Male	56.1	54.7	54.5	90.5 **	90.3 **	92.1 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
California						
	All industries			Construction		
	1990 (n= 737,637)	2000 (n=788,333)	2008-2012 (n=886,178)	1990 (n=50,229)	2000 (n=48,798)	2008-2012 (n=54,191)
Race/ethnicity						
Black American	6.4 %	6.3 %	6.0 %	3.5 % **	3.3 % **	2.7 % **
Asian-Pacific American	8.3	11.1	13.1	3.3 **	4.0 **	4.9 **
Subcontinent Asian American	0.6	1.1	1.7	0.2 **	0.2 **	0.3 **
Hispanic American	23.4	27.6	35.2	27.4 **	35.0 **	48.1 **
Native American	0.8	1.2	0.9	0.9 **	1.5 **	1.0 **
Other minority group	0.2	0.9	0.3	0.2	1.0	0.3
Total minority	39.5 %	48.2 %	57.3 %	35.5 %	45.1 %	57.2 %
Non-Hispanic white	60.5	51.8	42.7	64.5 **	54.9 **	42.8
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	43.4 %	45.1 %	45.6 %	10.0 % **	9.8 % **	8.9 % **
Male	56.6	54.9	54.4	90.0 **	90.2 **	91.1 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
United States						
	All industries			Construction		
	1990 (n=6,186,952)	2000 (n=6,832,970)	2008-2012 (n=1,518,166)	1990 (n=410,004)	2000 (n=480,280)	2008-2012 (n=106,823)
Race/ethnicity						
Black American	10.5 %	10.9 %	11.9 %	7.1 % **	6.2 % **	5.8 % **
Asian-Pacific American	2.4	3.4	4.3	1.0 **	1.2 **	1.6 **
Subcontinent Asian American	0.4	0.7	1.2	0.2 **	0.2 **	0.2 **
Hispanic American	8.1	10.7	15.2	9.5 **	15.0 **	23.8 **
Native American	0.7	1.2	1.1	1.0 **	1.6 **	1.3 **
Other minority group	0.1	0.4	0.2	0.1	0.4	0.2
Total minority	22.1 %	27.3 %	33.9 %	18.9 %	24.5 %	32.9 %
Non-Hispanic white	77.9	72.7	66.1	81.1 **	75.5 **	67.1 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	45.3 %	46.5 %	47.2 %	9.7 % **	9.9 % **	9.1 % **
Male	54.7	53.5	52.8	90.3 **	90.1 **	90.9 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between workers in the construction industry and all industries for the given Census/ACS year is statistically significant at the 95% confidence level.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Academic research concerning the effect of race and gender discrimination on entry into the construction industry. There is a substantial academic literature that has examined whether race and gender discrimination affects opportunities of minorities and women to enter construction trades in the United States. Many studies indicate that race and gender discrimination affects opportunities for minorities and women in the construction industry. The literature concerning women in construction trades has identified substantial barriers to entry and advancement due to gender discrimination and sexual harassment.⁴⁷ Research concerning highway construction projects in Los Angeles and Oakland identified evidence of prevailing attitudes that women do not belong in construction, and that such discrimination was worse for women of color than for white women.⁴⁸

Importance of unions in entering the construction industry. Labor researchers characterize construction as a historically volatile industry that is sensitive to business cycles, making the presence of labor unions important for stability and job security within the industry.⁴⁹ The temporary nature of construction work results in uncertain job prospects and the relatively high turnover of laborers presents a disincentive for construction firms to invest in training. Some researchers have claimed that constant turnover has lent itself to informal recruitment practices and nepotism, compelling laborers to tap social networks for training and work. They credit the importance of social networks with the high degree of ethnic segmentation in the construction industry.⁵⁰ Unable to integrate themselves into traditionally white social networks, Black Americans and other minorities faced long-standing historical barriers to entering the industry.⁵¹

Construction unions aim to provide a reliable source of labor for employers and preserve job opportunities for workers by formalizing the recruitment process, coordinating training and apprenticeships, enforcing standards of work, and mitigating wage competition. The unionized sector of construction would seemingly be the best road for Black Americans and other underrepresented groups into the industry. However, some researchers have identified discrimination by trade unions that has historically prevented minorities from obtaining employment in skilled trades.⁵² Some researchers argue that union discrimination takes place in a variety of forms including the following:

- Unions have used admissions criteria that adversely affect minorities. In the 1970s, federal courts ruled that standardized testing requirements for unions unfairly disadvantaged minority applicants who had less exposure to testing. In addition, the policies that required new union

⁴⁷ See, for example, Erickson, Julia A and Donna E. Palladino. 2009. "Women Pursuing Careers in Trades and Construction." *Journal of Career Development*. 36(1): 68-89.

⁴⁸ Note that interviews with women took place between 1996 and 1999. Price, Vivian, 2002. "Race, Affirmative Action and Women's Participation in U.S. Highway Construction." *Feminist Economics*. 8(2), 87-113.

⁴⁹ Applebaum, Herbert. 1999. *Construction Workers, U.S.A.* Westport: Greenwood Press.

⁵⁰ Waldinger, Roger and Thomas Bailey. 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction." *Politics & Society*, 19(3).

⁵¹ Feagin, Joe R. and Nikitah Imani. 1994. "Racial Barriers to African American Entrepreneurship: An Exploratory Study." *Social Problems*. 41(4): 562-584.

⁵² U.S. Department of Justice. 1996. Proposed Reforms to Affirmative Action in Federal Procurement. 61 FR 26042.

members to have relatives who were already in the union perpetuated the effects of past discrimination.⁵³ Some disparity studies in California in the 1990s revealed that those practices had persisted — for example, unions were still using admissions testing requirements that adversely affected minorities.⁵⁴ Moreover, applicants who were relatives of existing union members were often waived from admissions requirements.⁵⁵

- Of those minority individuals who are admitted to unions, a disproportionately low number are admitted into union-coordinated apprenticeship programs. Apprenticeship programs are an important means of producing skilled construction laborers, and the reported exclusion of Black Americans from those programs has severely limited their access to skilled occupations in the construction industry.⁵⁶
- Although formal training and apprenticeship programs exist within unions, most training of union members takes place informally through social networking. Nepotism characterizes the unionized sector of construction as it does the non-unionized sector, and that practice favors a white-dominated status quo.⁵⁷
- Traditionally, white unions have been successful in resisting policies designed to increase Black American participation in training programs. The political strength of unions in resisting affirmative action in construction has hindered the advancement of Black Americans in the industry.⁵⁸
- Discriminatory practices in employee referral procedures, including apportioning work based on seniority, have precluded minority union members from having the same access to construction work as their white counterparts.⁵⁹
- According to testimony from Black American union members, even when unions implement meritocratic mechanisms of apportioning employment to laborers, white workers are often allowed to circumvent procedures and receive preference for construction jobs.⁶⁰

However, more recent research suggests that the relationship between minorities and unions has been changing. As a result, historical observations may not be indicative of current dynamics in construction unions. Recent studies focusing on the role of unions in apprenticeship programs have compared minority and female participation and graduation rates for apprenticeships in joint programs (that

⁵³ *Ibid.* See *United States v. Iron Workers Local 86* (1971), *Sims v. Sheet Metal Workers International Association* (1973), and *United States v. International Association of Bridge, Structural and Ornamental Iron Workers* (1971).

⁵⁴ National Economic Research Association, Inc. 1992. The Utilization of Minority and Woman-Owned Business Enterprises by Contra Costa County. 185-186.

⁵⁵ BPA Economics, Mason Tillman Associates, and Boasberg and Norton. 1990. MBE-WBE Disparity Study of the City of San Jose.

⁵⁶ Applebaum. 1999. Construction Workers, U.S.A.

⁵⁷ *Ibid.* 299. A high percentage of skilled workers reported having a father or relative in the same trade. However, the author suggests this may not be indicative of current trends.

⁵⁸ Waldinger and Bailey. 1991. “The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction.”

⁵⁹ U.S. Department of Justice. 1996. Proposed Reforms to Affirmative Action in Federal Procurement. 61 FR 26042. See *United Steelworkers of America v. Weber* (1979) and *Taylor v. United States Department of Labor* (1982).

⁶⁰ Feagin and Imani. 1994. “Racial Barriers to African American Entrepreneurship: An Exploratory Study.” *Social Problems*. 41(4): 562-584.

unions and employers organize together) with rates in employer-only programs. Many of those studies conclude that the impact of union involvement is generally positive or neutral for minorities and women, compared to non-Hispanic white males:

- Glover and Bilginsoy (2005) analyzed apprenticeship programs in the U.S. construction industry during the period 1996 through 2003. Their dataset covered about 65 percent of apprenticeships during that time. The authors found that joint programs had “much higher enrollments and participation of women and ethnic/racial minorities” and exhibited “markedly better performance for all groups on rates of attrition and completion” compared to employer-run programs.⁶¹
- In a similar analysis focusing on female apprentices, Bilginsoy and Berik (2006) found that women were most likely to work in highly-skilled construction professions as a result of enrollment in joint programs as opposed to employer-run programs. Moreover, the effect of union involvement in apprenticeship training was higher for Black American women than for white women.⁶²
- A recent study on the presence of Black Americans and Hispanic Americans in apprenticeship programs found that Black Americans were 8 percent more likely to be enrolled in a joint program than in an employer-run program. However, Hispanic Americans were less likely to be in a joint program than in an employer-run program.⁶³ Those data suggest that Hispanic Americans may be more likely than Black Americans to enter the construction industry without the support of a union.

Other data also indicate a more positive relationship between construction unions and minority workers than that which may have prevailed in the past. For example, 2012 Current Population Survey (CPS) data indicate that union membership rates for Black Americans are slightly higher than those of non-Hispanic whites in the United States.⁶⁴ The CPS asked participants, “Are you a member of a labor union or of an employee association similar to a union?” CPS data showed union membership to be 13 percent for Black American workers, 10 percent for Hispanic American workers, and 11 percent non-Hispanic white workers. In the construction industry, the union membership rate for both Black American workers and non-Hispanic white workers was 17 percent. In contrast, the CPS showed that only 7 percent of Hispanic Americans in construction are union members.

Another study, which used U.S. Department of Labor data in combination with data from the California Apprenticeship Agency from 1995-2003, found that apprenticeship program attrition rates and the occupations for which students were training were different for non-Hispanic whites, Black Americans, and Hispanic Americans.⁶⁵ Non-Hispanic whites had the lowest attrition rate at 47 percent,

⁶¹ Glover, Robert and Bilginsoy, Cihan. 2005. “Registered Apprenticeship Training in the U.S. Construction Industry.” *Education & Training*, Vol. 47, 4/5, p 337.

⁶² Günseli Berik, Cihan Bilginsoy. 2006. “Still a wedge in the door: women training for the construction trades in the USA.” *International Journal of Manpower*, Vol. 27 Iss: 4, pp.321 – 341.

⁶³ Bilginsoy, Cihan. 2005. “How Unions Affect Minority Representation in Building Trades Apprenticeship Programs.” *Journal of Labor Research*, 57(1).

⁶⁴ 2007 Current Population Survey (CPS), U.S. Census Bureau and Bureau of Labor Statistics.

⁶⁵ Bilginsoy, Cihan. 2003. “The Hazards of Training: Attrition and Retention in the Construction Industry Apprenticeship Programs.” *Industrial & Labor Relations Review*, 57(1) 54-67.

followed by Hispanic Americans (63%), and Black Americans (70%). In addition, both Black Americans and Hispanic Americans were more likely to enroll in training programs for occupations with lower levels of pay and prestige. The study did not explore causal factors for any of the observed differences between non-Hispanic whites and minorities. However, those differences could be explained by a variety of factors:

- Students in apprenticeship programs may drop out due to dissatisfaction with the program, training, or occupation.⁶⁶
- The expected benefits of staying in the apprenticeship program may be less for lower paying occupations.⁶⁷ Thus, there may be less incentive for apprentices in occupations with lower pay levels to complete long, arduous programs (most programs require between 6,000 and 8,000 hours and last several years).⁶⁸
- Unobserved characteristics of the apprentices, such as financial status, previous education, English proficiency, age, and a variety of other socioeconomic factors may limit the ability of an individual to complete the program.

Although union membership and union program participation varies based on race/ethnicity, the causes of those differences and their effects on construction industry employment are unresolved. Research is especially limited on the impact of unions on Asian-Pacific American employment. It is unclear from past studies whether unions presently help or hinder equal opportunity in construction and whether effects in California are different from other parts of the country. In addition, the current research indicates that the effects of unions on entry into the construction industry may be different for different minority groups.

Overall, union membership is declining. Data regarding union membership in California shows that the percentage of employed wage and salary workers who are members of a union has dropped from 18.4 percent in 2008 to 17.2 percent in 2012. Since comparable state data became available in 1989, California union membership rates have exceeded the U.S. average. Union membership for California was at a high of 18.9 percent in 1989 and a low of 15.5 percent in 2000. Nationwide union membership dropped from 12.3 percent in 2008 to 11.3 percent in 2012. Furthermore, union membership in the California construction industry saw a similar decline from 20.2 percent in 2008 to 15.9 percent in 2012.^{69, 70}

⁶⁶ Bilginsoy. 2003. "The Hazards of Training: Attrition and Retention in the Construction Industry Apprenticeship Programs." *Industrial & Labor Relations Review*, 57(1) 54-67.

⁶⁷ Bilginsoy, Cihan. 2007. "Delivering Skills: Apprenticeship Program Sponsorship and Transition from Training." *Industrial Relations*, 46(4): 738-765.

⁶⁸ Bilginsoy. 2003. "The Hazards of Training: Attrition and Retention in the Construction Industry Apprenticeship Programs." *Industrial & Labor Relations Review*, 57(1) 54-67.

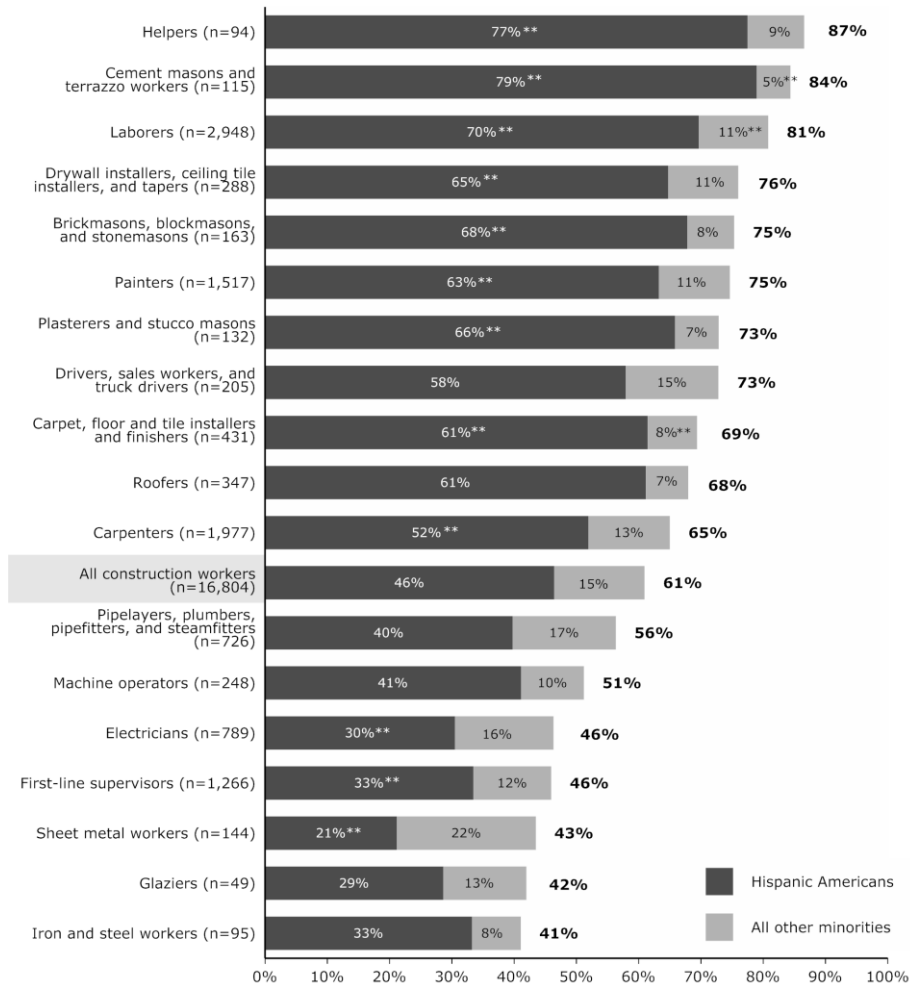
⁶⁹ Bureau of Labor Statistics, U.S. Department of Labor. 2014. "Union Membership in California – 2013."

⁷⁰ Dayton, Kevin. "California's Unionized Construction Workforce: Surprisingly Low Rates...and Dropping." *Union Watch*.

Advancement. To research opportunities for advancement in the construction industry in SFMTA’s market area, the Study Team examined the representation of minorities and women in construction occupations defined by the U.S. Bureau of Labor Statistics.⁷¹

Racial/ethnic composition of construction occupations. Figures D-2 and D-3 summarize the race/ethnicity of workers in select construction-related occupations in SFMTA’s market area, including low-skill occupations, higher-skill construction trades, and supervisory roles. Figure D-2 and D-3 present those data for 2000 and 2008-2012, respectively.

Figure D-2.
Minorities as a percentage of selected construction occupations in SFMTA’s market area, 2000



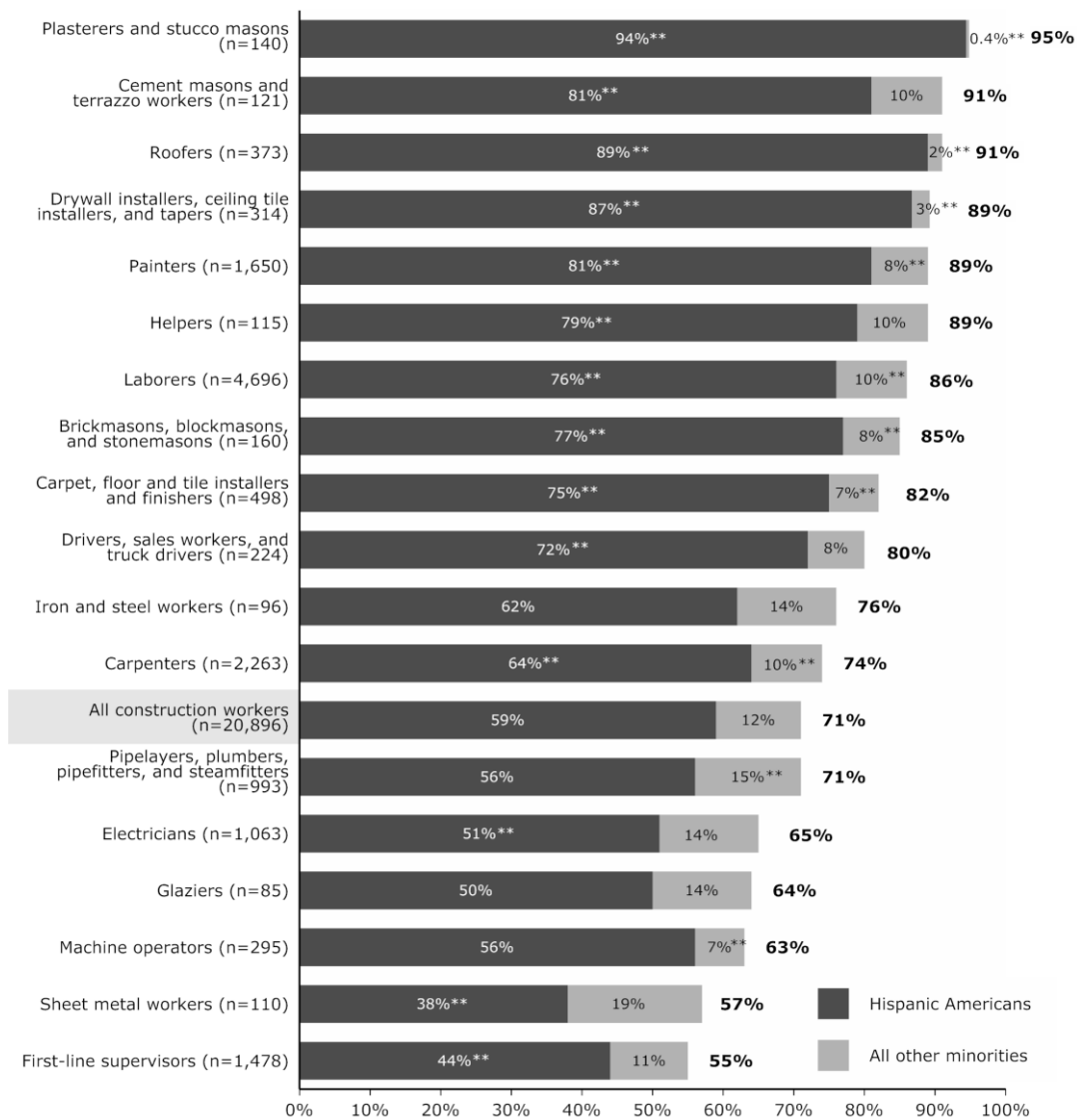
Note: ** Denotes that the difference in proportions between all workers in the construction industry and those in specific occupations is statistically significant at the 95% confidence level.

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

Source: The Study Team from 2000 U.S. Census 5% sample Public Use Micro-sample data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

⁷¹ Bureau of Labor Statistics, U.S. Department of Labor. 2001. “Standard Occupational Classification Major Groups.” http://www.bls.gov/soc/soc_majo.htm (accessed February 15, 2007).

Figure D-3.
Minorities as a percentage of selected construction occupations in SFMTA’s market area, 2008-2012



Note: ** Denotes that the difference in proportions between all workers in the construction industry and those in specific occupations is statistically significant at the 95% confidence level.

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

Source: The Study Team from 2008-2012 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Based on 2000 Census and 2008-2012 ACS data, there are large differences in the racial/ethnic makeup of workers in various trades related to construction in SFMTA’s market area. Overall, minorities comprised 61 percent of the construction workforce in 2000 and 71 percent in 2008-2012. Minorities comprised a relatively large share of the local construction workforce for:

- Construction laborers (81% in 2000 and 86% in 2008-2012);
- Plasterers and stucco masons (73% in 2000 and 95% in 2008-2012);

- Helpers (87% in 2000 and 89% in 2008-2012);
- Cement masons and terrazzo workers (84% in 2000 and 91% in 2008-2012);
- Roofers (68% in 2000 and 91% in 2008-2012);
- Brickmasons, blockmasons and stonemasons (75% in 2000 and 85% in 2008-2012);
- Painters (75% in 2000 and 89% in 2008-2012); and
- Drywall, ceiling tile installers, and tapers (76% in 2000 and 89% in 2008-2012).

Some occupations had a relatively low representation of minorities:

- Glaziers (42% in 2000 and 64% in 2008-2012);
- Electricians (46% in 2000 and 65% in 2008-2012);
- Machine operators (51% in 2000 and 63% in 2008-2012); and
- Sheet metal workers (43% in 2000 and 57% in 2008-2012).

About 46 percent of first-line supervisors of construction workers were minorities in 2000, less than the total percentage of construction workers who were minorities in SFMTA's market area. Minorities made up a greater share of first-line supervisors (55%) in 2008-2012, but that percentage was still less than the total percentage of construction workers who were minorities during those years.

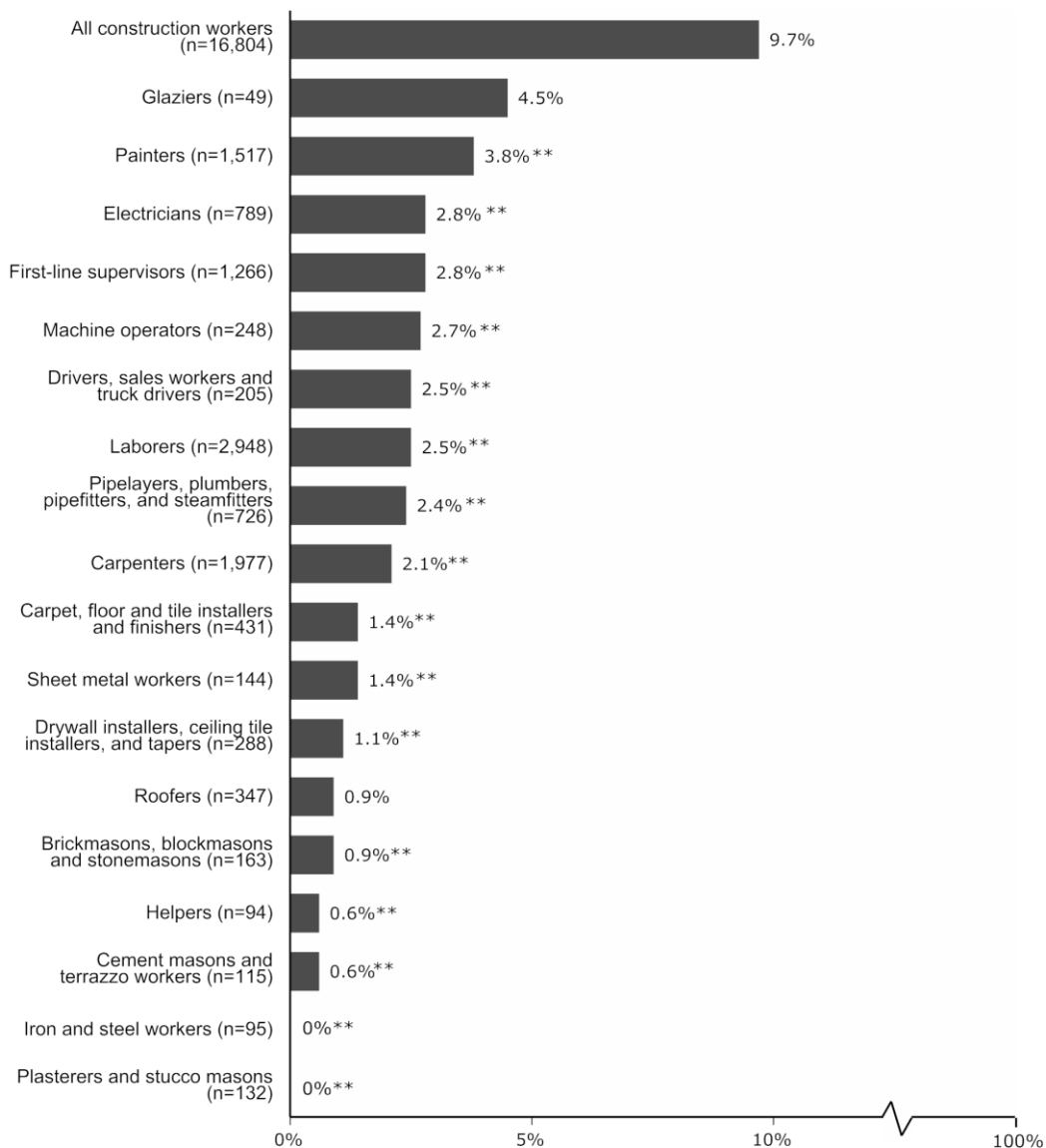
Most of the overall differences for minorities were driven by differences in the representation of Hispanic Americans in those occupations. The percentage of non-Hispanic minorities decreased or remained the same in each construction occupation between 2000 and 2008-2012 except for construction laborers and first-line supervisors.

Gender composition of construction occupations. The Study Team also analyzed the proportion of women in construction-related occupations. Overall, less than 10 percent of workers in the construction industry in SFMTA's market area were women in 2000 and 2008-2012. Representation of women in the construction workforce declined from 2000 to 2008-2012.

Figures D-4 and D-5 summarize the gender of workers in select construction-related occupations. Figure D -4 and D -5 present those data for 2000 and 2008-2012, respectively. In both 2000 and 2008-2012, less than 2 percent of workers were women in the following trades:

- Plasterers and stucco masons;
- Brickmasons, blockmasons, and stonemasons;
- Cement masons and terrazzo workers;
- Roofers;
- Sheet metal workers;
- Carpet, floor and tile installers and finishers;
- Drywall installers, ceiling tile installers, and tapers; and
- Iron and steel workers.

Figure D-4.
Women as a percentage of construction workers in selected occupations in SFMTA's market area, 2000



Note: ** Denotes that the difference in proportions between females in the construction industry and females in specific occupations is statistically significant at the 95% confidence level.

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

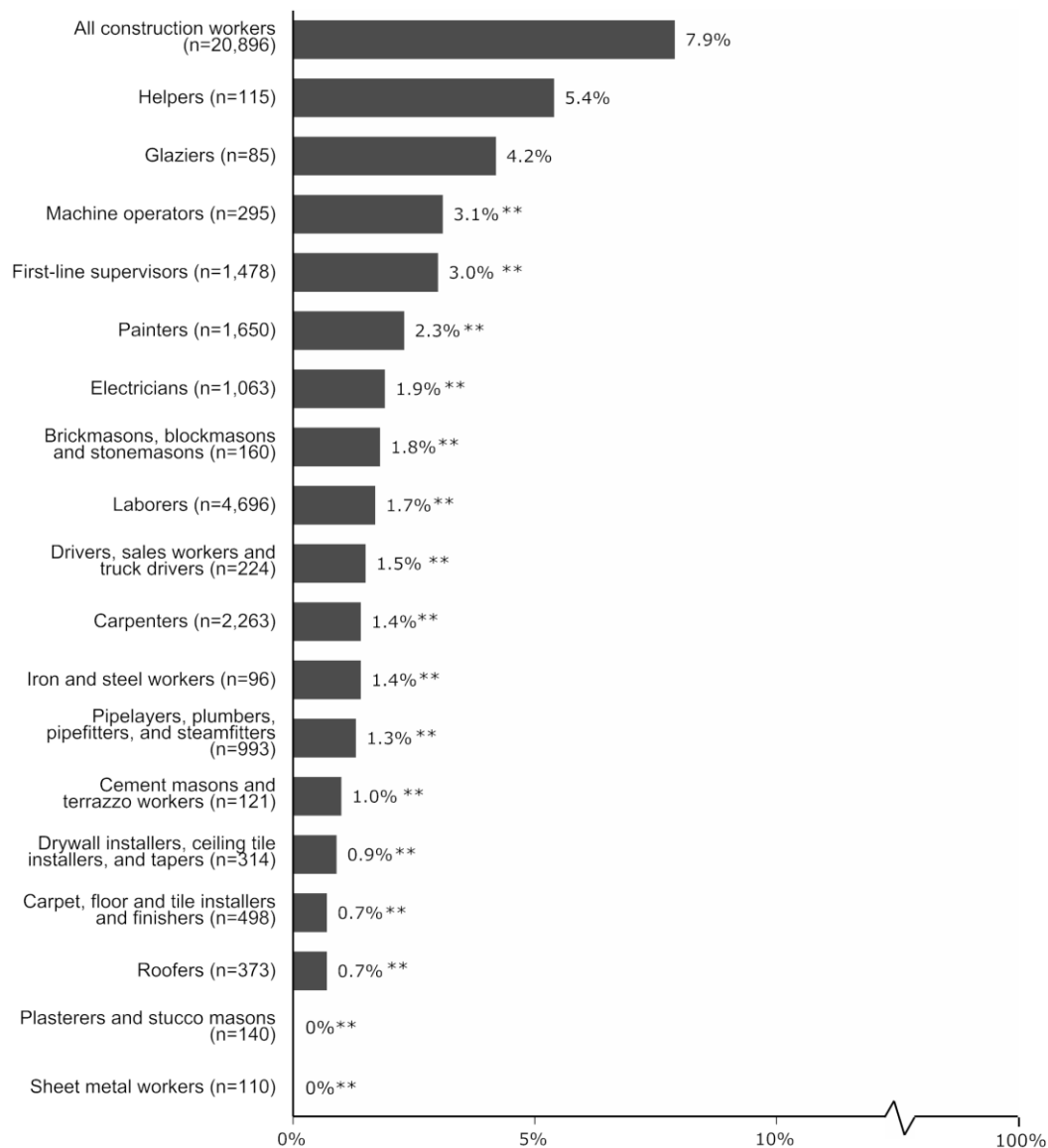
Source: The Study Team from 2000 U.S. Census 5% sample Public Use Micro-sample data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Among all the individual occupations listed in Figures D-4 and D-5, the following occupations showed an increase in the representation of women between 2000 and 2008-2012:

- First-line supervisors;
- Helpers;
- Cement masons and terrazzo workers;

- Iron and steel workers;
- Brickmasons, blockmasons, and stonemasons; and
- Machine operators.

Figure D-5.
Women as a percentage of construction workers in selected occupations in SFMTA's market area, 2008-2012



Note: ** Denotes that the difference in proportions between females in the construction industry and females in specific occupations is statistically significant at the 95% confidence level.

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

Source: The Study Team from 2008-2012 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Percentage of minorities and women who are managers. To further assess advancement opportunities for minorities and women in the construction industry in SFMTA’s market area, the Study Team examined differences between demographic groups in the proportion of construction workers who were managers. Figure D-6 presents the percentage of construction workers who reported being construction managers in 1990, 2000 and 2008-2012 for SFMTA’s market area, California, and the nation.

**Figure D-6.
Percentage of
construction workers who
worked as a manager,
1990, 2000 and 2008-2012**

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between females and males) for the given Census/ACS year is statistically significant at the 95% confidence level.

Source:

The Study Team from the 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

SFMTA's market area	1990	2000	2008-2012
Race/ethnicity			
Black American	5.3 % **	6.3 % **	4.7 % **
Asian-Pacific American	11.2 **	11.1	9.8 **
Subcontinent Asian American	12.6	13.0	14.4
Hispanic American	2.5 **	2.6 **	2.9 **
Native American	3.0 **	8.0	8.2
Other minority group	6.0	9.7	7.8
Non-Hispanic white	13.5	12.8	13.5
Gender			
Female	13.6 % **	5.7 % **	7.0 %
Male	8.2	7.7	6.6
All individuals	8.7 %	7.5 %	6.6 %
California	1990	2000	2008-2012
Race/ethnicity			
Black American	4.5 % **	4.9 % **	4.1 % **
Asian-Pacific American	10.2 **	9.3	9.7 **
Subcontinent Asian American	14.0	11.1	11.4
Hispanic American	2.8 **	2.4 **	2.9 **
Native American	4.8 **	8.3	7.6 **
Other minority group	5.2 **	8.9	7.2 **
Non-Hispanic white	12.4	11.0	12.5
Gender			
Female	13.6 % **	5.0 % **	6.0 % **
Male	8.9	7.9	7.6
All individuals	9.4 %	7.6 %	7.5 %
United States	1990	2000	2008-2012
Race/ethnicity			
Black American	3.0 % **	3.1 % **	4.2 % **
Asian-Pacific American	8.5	7.7	8.4
Subcontinent Asian American	11.8	11.7 **	14.3 **
Hispanic American	3.2 **	2.5 **	2.7 **
Native American	4.8 **	4.6 **	4.7 **
Other minority group	5.3 **	6.2 **	5.9 **
Non-Hispanic white	9.3	7.5	8.7
Gender			
Female	10.8 % **	4.1 % **	5.6 % **
Male	8.0	6.7	7.1
All individuals	8.2 %	6.5 %	7.0 %

Racial/ethnic composition of managers. Overall, the proportion of construction workers who were managers decreased between 2000 and 2008-2012. In 2008-2012, about 14 percent of non-Hispanic whites in the construction industry in SFMTA’s market area were managers. Compared with non-Hispanic whites, a smaller percentage of all minority groups except Subcontinent Asian Americans were managers in the construction industry:

- About 5 percent of Black Americans working in the construction industry in SFMTA’s market area were managers, a statistically significant difference;
- Less than 10 percent of Asian-Pacific Americans were managers, a statistically significant difference;
- Less than 3 percent of Hispanic Americans were managers, a statistically significant difference; and
- About 8 percent of Native Americans and Other minorities in the construction industry were managers.

The percentage of workers in the construction industry who were managers was higher in SFMTA’s market area than California and the United States for all minority groups.

Gender composition of managers. Female construction workers were substantially less likely than their male counterparts to be managers in 2000. In 2008-2012, 7 percent of both female and male construction workers were managers in the construction industry in SFMTA’s market area.

Professional Services Industry

The Study Team next examined how education and employment may influence the number of minority and female entrepreneurs potentially working in the professional services industry in SFMTA’s market area.

Education. In contrast to the construction industry, lack of educational attainment may preclude workers’ entry into the professional services industry, because many occupations require at least a four-year college degree and some require licensure. According to the 2008-2012 ACS, 77 percent of individuals working in the professional services industry in SFMTA’s market area had at least a four-year college degree. Therefore, barriers to education can restrict employment opportunities, advancement opportunities, and, ultimately, business ownership. Disparities in business ownership rates in professional services-related work may have resulted from lack of sufficient education across race, ethnicity, and gender groups.⁷²

Based on 2000 Census data and 2008-2012 ACS data, Figure D-7 presents the percentage of workers age 25 and older with at least a four-year degree in SFMTA’s market area, California, and the United States. The level of education necessary to work in the professional services industry may partially restrict employment opportunities for Black Americans, Asian-Pacific Americans, Hispanic Americans, Native Americans, and Other minority groups. For each of those groups, the percentage of

⁷² Feagin, Joe R. and Nikitah Imani. 1994. “Racial Barriers to African American Entrepreneurship: An Exploratory Study.” *Social Problems*. 42 (4): 562-584.

workers age 25 or older with a bachelor’s degree or higher was substantially lower than that of non-Hispanic whites in SFMTA’s market area for 2000 and 2008-2012.

**Figure D-7.
Percentage of all workers 25 and older with at least a four-year degree, 2000 and 2008-2012**

Note:

** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male gender groups) for the given Census/ACS year is statistically significant at the 95% confidence level.

Source:

The Study Team from 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Micro-sample data. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

SFMTA's market area	2000	2008-2012
Race/ethnicity		
Black American	25.9 % **	31.5 % **
Asian-Pacific American	48.6 **	52.5 **
Subcontinent Asian American	80.8 **	85.4 **
Hispanic American	16.9 **	16.7 **
Native American	30.3 **	32.2 **
Other minority group	44.8 **	47.5 **
Non-Hispanic white	55.7	59.2
Gender		
Female	45.1 % **	47.5 % **
Male	47.6	45.4
California		
Race/ethnicity		
Black American	23.2 % **	28.2 % **
Asian-Pacific American	46.7 **	51.5 **
Subcontinent Asian American	69.2 **	74.3 **
Hispanic American	10.3 **	12.5 **
Native American	21.0 **	26.5 **
Other minority group	33.8 **	39.7 **
Non-Hispanic white	40.2	45.3
Gender		
Female	31.9 % **	36.0 % **
Male	32.8	33.3
United States		
Race/ethnicity		
Black American	19.1 % **	22.3 % **
Asian-Pacific American	45.4 **	49.3 **
Subcontinent Asian American	68.4 **	74.2 **
Hispanic American	13.4 **	14.8 **
Native American	17.3 **	19.0 **
Other minority group	30.0 **	33.5 **
Non-Hispanic white	32.5	36.3
Gender		
Female	29.3 % **	33.4 % **
Male	30.2	31.7

Race/ethnicity. In SFMTA’s market area, about 59 percent of all non-Hispanic white workers age 25 and older had at least a four-year degree in 2008-2012. For other racial/ethnic groups, 2008-2012 ACS data for SFMTA’s market area indicated the following:

- About 32 percent of Black Americans had at least a four-year college degree;

- Approximately 53 percent of Asian-Pacific Americans had at least a four-year degree;
- Only 17 percent of Hispanic Americans had at least a four-year college degree;
- About 32 percent of Native Americans had at least a four-year college degree; and
- About 48 percent of Other minorities had at least a four-year college degree.

Some minority groups in SFMTA’s market area were more likely than non-Hispanic whites to be college graduates in 2008-2012. About 85 percent of Subcontinent Asian Americans had at least a bachelor’s degree. In SFMTA’s market area, California, and the United States as a whole, all minority groups showed an increase between 2000 and 2008-2012 in the proportion of workers with a bachelor’s degree, except for a slight decline for Hispanic Americans in SFMTA’s market area.

Gender. In SFMTA’s market area in 2000, about 45 percent of women and 48 percent of men had at least a four-year college degree. In 2008-2012, a larger percentage of women (48%) had a bachelor’s degree than men (45%).

Additional indices of high school educational attainment. Because of the importance of college admission as a step in entering the professional services industry, the Study Team examined additional information on the educational achievement of minority high school students in California.⁷³

California Legislative Black Caucus report. The California Legislative Black Caucus published a report in early 2007 that included indices of high school achievement for Black Americans, Asian Americans, Hispanic Americans, and non-Hispanic whites in California.⁷⁴ The Study Team translated the reported statistics into indices where a value of 100 represents the high school achievement rate for non-Hispanic white students. Values less than 100 indicate lower high school achievement rates for minority students, and values greater than 100 indicate higher high school achievement rates for minority students.

For example, only 25.2 percent of Black American students in California had completed necessary courses for admission to a University of California (UC) or California State University (CSU) school in 2004-2005. That rate was below the rate for non-Hispanic white students (40.9%). The Study Team created an index for Black American student achievement for completion of necessary courses by dividing 25.2 percent by 40.9 percent, and then multiplying the result by 100, yielding an index value of 62.

As shown in Figure D-8, high school achievement indices ranged from 52 to 95 for Black American students in California. The range for Hispanic Americans in California ranged from 59 to 96. Overall, the California Legislative Black Caucus report showed educational outcomes for Asian American students to be similar or better than those of non-Hispanic whites.

⁷³ The data used to measure indices of high school educational attainment are not available at geographic regions smaller than the state level.

⁷⁴ Indices of high school achievement were not available specifically for SFMTA’s market area. As a result, data are presented for the state of California as a whole.

Figure D-8.
Indices of high school achievement for Black Americans, Asian Americans, Hispanic Americans and non-Hispanic whites in California, 2004-2005 (non-Hispanic white=100)

California	Black American	Asian American	Hispanic American
Completed courses for UC/CSU entrance	62	144	59
CAT/6 reading scores (11th Grade)	95	100	96
High school exit exam passing rate: English	52	108	64
High school exit exam passing rate: math	62	86	62
SAT average score	80	98	83
High school dropouts: 1 year rate	275	70	200
High school dropouts: 4 year rate	276	70	210

Note: Data for completed courses for UC/CSU entrance were for 2004-2005. Dates not provided in source for other educational statistics.

Source: The Study Team from California Legislative Black Caucus. 2007. The State of Black California, Full Report, Sacramento.

Notable indices for Black Americans included:

- Passing the high school exit exam for English at a rate roughly half that of non-Hispanic white students;
- Passing the high school exit exam for math at less than two-thirds the rate of non-Hispanic white students; and
- Having a high school dropout rate more than twice that that of non-Hispanic white students in California.

The achievement index with the least disparity between Black Americans and non-Hispanic whites (and Hispanic Americans and non-Hispanic whites) in California was reading scores from the Standardized Achievement Test (SAT) administered to students in the 11th grade. Hispanic American students, on average, exhibited similar disparities in achievement as found for Black American students.

Hispanic American students were closer to non-Hispanic white students in the rate of passing the high school exit exam for math, but had a lower index than Black Americans on completed courses for UC or CSU entrance. High school dropout rates were lower for Hispanic Americans than for Black Americans, but still double that of non-Hispanic whites.

American College Testing (ACT) scores. The Study Team also analyzed more recent high school achievement data from the ACT assessment. Universities evaluate prospective students based on a number of factors, including high school achievement and standardized test scores, such as the ACT, which measures educational attainment in English, mathematics, reading, and science. The same organization that administers the ACT also measures “college readiness” using a benchmark score — the minimum score in each subject area that indicates a 50 percent chance of obtaining a “B” or higher or a 75 percent chance of obtaining a “C” or higher in corresponding college-level courses. Each year, ACT publishes its findings in state-specific reports, which include the percent of students that met the college readiness benchmark score by race/ethnicity.

Using data from the 2009, 2011, and 2013 reports, The Study Team created an attainment index (similar to the one that the Study Team created for the California Legislative Black Caucus report) for

minority students by measuring college readiness rates for each group against those of non-Hispanic white students. As with the index for the California Legislative Black Caucus report, a value of 100 represents the college readiness benchmark for non-Hispanic white students. Values less than 100 indicate lower college readiness benchmarks for minority students, and values greater than 100 indicate higher college readiness benchmarks for minority students.

As shown in Figure D-9, 2013 college readiness indices in different subject areas ranged from 24 to 54 for Black American students in California. Indices for Hispanic American students ranged from 33 to 59. Using the same indexing method, Figure D-9 also presents average freshman graduation rates for different racial/ethnic groups among high school students in California in 2009.⁷⁵

Figure D-9.
Indices of college readiness and college freshman graduation rates for Black Americans, Asian Americans, Hispanic Americans and non-Hispanic whites in California, 2008-2009, 2010-2011 and 2012-2013 (non-Hispanic white=100)

California, 2008-2009	Black American	Asian American	Hispanic American	Native American
ACT college readiness benchmark index for:				
English	54	91	57	78
Math	33	104	44	70
Reading	43	86	48	74
Science	22	98	28	67
All four	20	98	24	63
ACT composite score	75	98	78	88
Average freshman graduation rate	71	114	76	81
California, 2010-2011				
ACT college readiness benchmark index for:				
English	54	90	56	78
Math	34	104	46	66
Reading	43	88	48	77
Science	20	96	27	55
All four	17	96	26	50
ACT composite score	74	98	77	87
California, 2012-2013				
ACT college readiness benchmark index for:				
English	54	89	59	78
Math	36	103	50	67
Reading	36	78	42	62
Science	31	110	41	75
All four	24	102	33	59
ACT composite score	75	98	78	86

Note: The average freshman graduation rate (AFGR) is an estimate of the percentage of the entering high school freshman class graduating in four years. For a more detailed explanation, visit the United States Department of Education website.

Source: The Study Team from ACT. *ACT High School Profile Report*. California, 2009, 2011, and 2013 & U.S. Department of Education, Common Core of Data. *Public School Graduates and Dropouts from the Common Core of Data; School Year 2008-2009*.

⁷⁵ The average freshman graduation rate (AFGR) is an estimate of the percentage of the entering high school freshman class graduating in four years. For a more detailed explanation, visit the United States Department of Education website.

Notable indices for Black Americans students in California in 2013 include:

- Meeting the ACT college readiness benchmark score for science at 31 percent of the rate for non-Hispanic white students;
- Meeting the ACT college readiness benchmark score for math and reading at approximately one-third the rate for non-Hispanic white students;
- Meeting the ACT college readiness benchmark score in all four subject areas at 24 percent of the rate for non-Hispanic white students; and
- Having an average freshman graduation rate that was 71 percent of that found for non-Hispanic white students.

In terms of the college readiness benchmark score, the smallest disparity between Black Americans and non-Hispanic whites was in English (index score of 54).

There were also disparities in college readiness and high school achievement for Hispanic American students in California when measuring their scores against those of non-Hispanic white students. Hispanic American students met the college readiness benchmark scores in math and science at about 50 percent and 41 percent of the rate of non-Hispanic white rates, respectively. For those in the graduating class of 2009, Hispanic Americans had an average freshman graduation rate that was 76 percent of that found for non-Hispanic white students.

In general, Native American students in California also met the college readiness benchmark scores at lower rates than non-Hispanic white students but above rates for Black American and Hispanic American students. Scores for Asian American students were higher than Black American, Hispanic American, and Native American students for each section of the ACT with college readiness indices in different subject areas ranging from 78 to 110. Asian Americans also had an average freshman graduation rate that was 114 percent of that found for non-Hispanic white students.

It appears that disparities in educational achievement in high school or in prior grades are important in explaining the relatively low number of Black Americans and Hispanic Americans that have college degrees in California. There are many studies throughout the nation that consider whether the causes of the disparities in educational outcomes for racial/ethnic minorities are affected by discrimination. Those studies are not reviewed in this report.

College engineering programs in California. Historically, college engineering programs in the United States were slow to open doors to minorities such as Black Americans.^{76, 77} In recent years, California has stood out as having low percentages of Black American engineering students. Out of the top 26 engineering schools in the nation in 2002, four were University of California campuses (UC Berkeley, UC Los Angeles (UCLA), UC Santa Barbara (UCSB), and UC San Diego (UCSD)). A 2003

⁷⁶ For the purposes of this study, the “professional services” industry includes architectural, engineering, and related services and advertising and related services. Analyzing college engineering programs in California can be instructive to understanding racial and ethnic disparities in the broader professional services industry.

⁷⁷ Unknown Author. 2003. “Blacks Strive to Build a Bridgehead in Academic Engineering.” *The Journal of Blacks in Higher Education*. 41 (Autumn): 98-108, 98.

study identified those schools for the lowest percentages of Black American engineering students among the top 26.⁷⁸

- In fall 2002, the University of California-Berkeley had 65 Black American students among 4,941 full-time engineering students (1.4 percent of engineering students), similar to UCLA.
- There were 23 Black Americans among 2,370 total engineering students at UCSB.
- UCSD had no Black Americans among its 5,264 engineering students in fall 2002.

Because the enrollment statistics for engineering students were for 2002, most of those students enrolled in college after Proposition 209 had gone into effect. Proposition 209 prohibits California's public colleges from giving preferential treatment to minorities and women in college admissions and financial aid except as part of a federal program. Voters passed that amendment to the California constitution in 1996, and it went into effect in 1998. Many researchers blame Proposition 209 for the relatively low representation of Black American and Hispanic American students at more selective colleges in California.^{79, 80}

Following the passing of Proposition 209, admission rates of minority applicants dropped dramatically and in the years following have not entirely recovered. One article notes that admission rates for Black Americans at more prestigious UC campuses have remained low, but rates at the least selective campuses have grown since Proposition 209.⁸¹ One researcher found that the percentage of Black American students at UCLA prior to Proposition 209 were nearly double the percentage in 2007.⁸² Another researcher wrote about the effect of Proposition 209 on transfer students and found that Black Americans have much lower rates of acceptance whereas Hispanic Americans experience transfer admission rates similar to non-Hispanic whites.⁸³

As a group, Asian American applicants were not adversely affected by the amendment. Asian American students accounted for only 11 percent of California high school graduates in 2006, but accounted for 36 percent of all students admitted to the UC system.⁸⁴

To better understand the broader patterns of enrollment by race/ethnicity in the four UC schools with the highest-rated engineering programs, the Study Team examined Black American, Hispanic

⁷⁸ *Ibid.*

⁷⁹ Contreras, Frances. 2003. "The Reconstruction of Merit Post-Proposition 209." *Educational Policy*. 19 (2): 371-395.

⁸⁰ Karabel, Jerome. 1999. "The Rise and Fall of Affirmative Action at the University of California." *The Journal of Blacks in Higher Education*. 25 (Autumn): 109-112.

⁸¹ Unknown Author. 2006. "Affirmative Action Ban Continues to Inflict Severe Damage on Black Higher Educational Opportunities in California." *The Journal of Blacks in Higher Education*. 51(Spring): 44.

⁸² Unknown Author. 2007. "The Ban on Affirmative Action at the University of California is Now 10 Years Old: The Severe Harm to the Educational Opportunities for African Americans Persists" *The Journal of Blacks in Higher Education*. 56 (Summer): 34-35, 34.

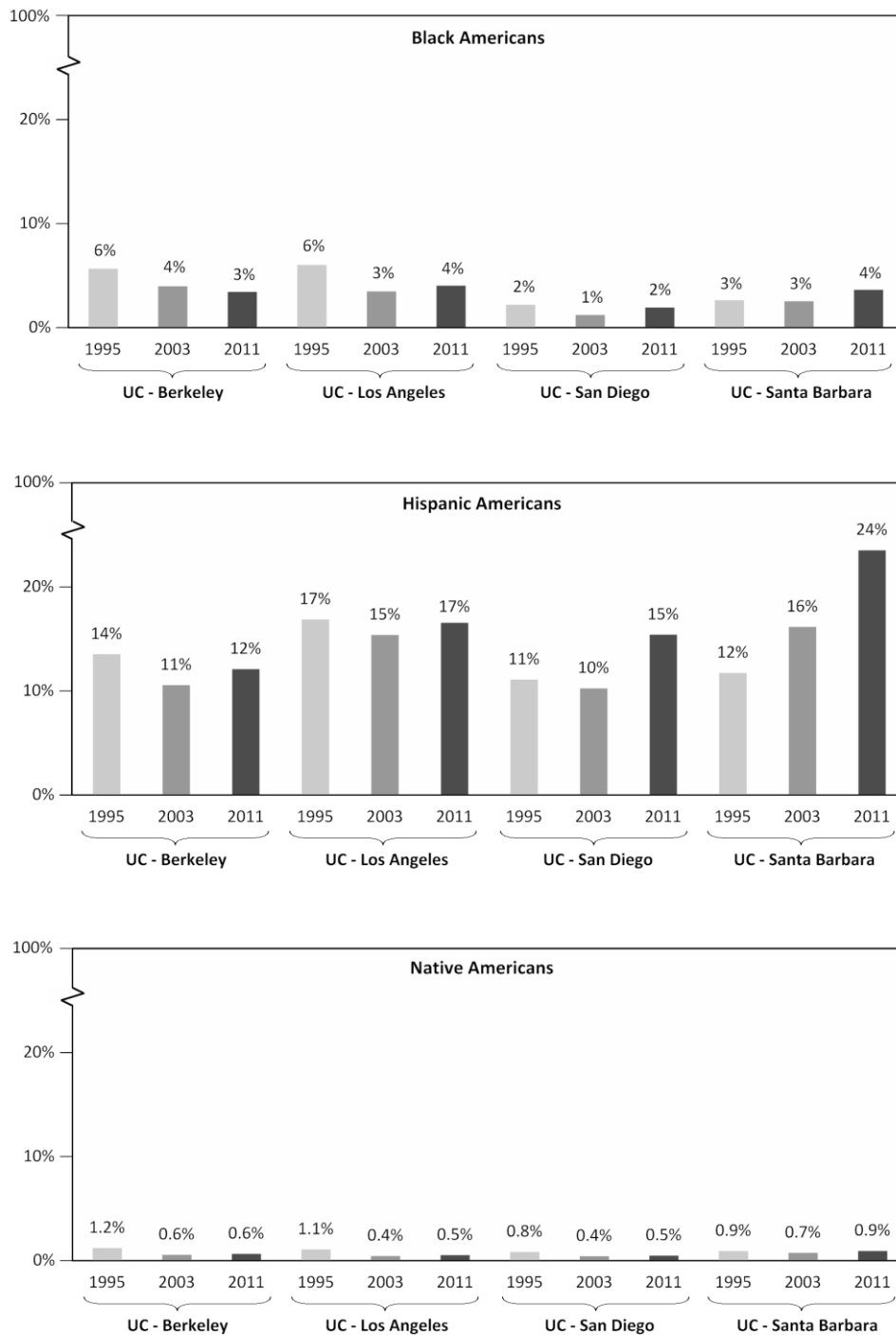
⁸³ Unknown Author. 2006. "The Devastating Impact of Proposition 209 on Black Higher Education in California." *The Journal of Blacks in Higher Education*. 59 (Spring): 14-15, 14.

⁸⁴ Unknown Author. 2006. "Affirmative Action Ban Continues to Inflict Severe Damage on Black Higher Educational Opportunities in California." *The Journal of Blacks in Higher Education*. 51(Spring).

American, and Native American enrollment as undergraduates in 1995, 2003, and 2011. Figure D-10 presents those trends.

- Between 1995 and 2003, the proportion of undergraduates who are Black American decreased by approximately one-third at UC-Berkeley and by one-half at UCLA and UCSD. The proportion of Black American undergraduates continued to decline at UC-Berkeley through 2011 but increased at UCLA, UCSD and UCSB from 2003 to 2011. UCSB is the only campus to have a higher representation of Black American undergraduates in 2011 than in 1995.
- The representation of Hispanic Americans among undergraduates also declined at UC-Berkeley, UCLA and UC-San Diego from 1995 to 2003. Enrollment of Hispanic Americans increased on each campus from 2003 to 2011 but remained below the 1995 proportion at UC-Berkeley. The proportion of Hispanic undergraduates doubled at UCSB between 1995 and 2011.
- Enrollment of Native Americans dropped at all four campuses from 1995 to 2003. The proportion of Native American undergraduates increased from 2003 to 2011, but remained below enrollment prior to the passing of Proposition 209, except at UCSB.

Figure D-10.
Enrollment of undergraduates at selected University of California campuses, fall 1995, 2003 and 2011



Source: UC Office of the President, Student Affairs, Admissions, available at <http://www.ucop.edu/sas/index.html>.

Employment. After consideration of educational opportunities and attainment for minorities and women, the Study Team examined the race/ethnicity and gender composition of workers in the professional services industry in SFMTA's market area. Figure D-11 compares the demographic composition of workers in the professional services industry to that of all workers in SFMTA's market area who are 25 years or older and have a college degree. Results are presented for 1990, 2000, and 2008-2012.

Race/ethnicity. In 2008-2012, about 42 percent of workers in the professional services industry in SFMTA's market area were minorities. Of those workers:

- 3 percent were Black Americans;
- 22 percent were Asian-Pacific Americans;
- 5 percent were Subcontinent Asian American; and
- 11 percent were Hispanic Americans.

Together, Native Americans and other minority groups comprised approximately 1 percent of professional services workers in 2008-2012.

In 2008-2012, minorities as a single group comprised a smaller share of workers in professional services-related industries (42%) than all workers 25 and older with a four-year college degree (49%). In particular, Asian-Pacific Americans made up 28 percent of workers with a four-year college degree but only 22 percent of workers in the professional services industry. Subcontinent Asian Americans made up 8 percent of workers with a college degree and 5 percent of professional services workers. However, Hispanic Americans comprised a larger share of workers in the professional services industry (11%) than workers with a college degree in all industries (9%).

Gender. Compared to their representation among workers 25 and older with a college degree in all industries, relatively few women work in the professional services industry. In 2008-2012, women represented 35 percent of professional services-related workers in SFMTA's market area but about 47 percent of workers with a four-year college degree.

Figure D-11.
Demographic distribution of professional services-related workers and workers age 25 and older with a four-year college degree in all industries, 1990, 2000 and 2008-2012

SFMTA's market area	Workers 25+ with college degree			Professional services industry workforce		
	1990 (n=36,216)	2000 (n=47,716)	2008-12 (n=67,078)	1990 (n=1,297)	2000 (n=2,394)	2008-12 (n=2,816)
Race/ethnicity						
Black American	4.5 %	3.8 %	4.0 %	3.4 %	4.6 %	3.3 %
Asian-Pacific American	17.1	23.0	27.6	12.5 **	18.4 **	21.6 **
Subcontinent Asian American	1.7	5.2	7.9	1.2	1.9 **	4.5 **
Hispanic American	4.9	5.7	8.9	6.2	7.1	11.4 **
Native American	0.3	0.6	0.5	0.5	0.8	0.3
Other minority group	0.1	0.9	0.4	0.4	0.9	0.5
Total minority	28.8 %	39.2 %	49.2 %	24.2 %	33.7 %	41.6 %
Non-Hispanic white	71.2	60.8	50.8	75.8	66.3	58.4
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	42.2 %	43.8 %	46.5 %	35.8 % **	39.5 % **	34.8 % **
Male	57.8	56.2	53.5	64.2	60.5	65.2
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
California						
California	Workers 25+ with college degree			Professional services industry workforce		
	1990 (n=172,353)	2000 (n=212,702)	2008-12 (n=284,876)	1990 (n=7,248)	2000 (n=11,553)	2008-12 (n=13,836)
Race/ethnicity						
Black American	4.4 %	4.5 %	4.8 %	2.9 % **	3.6 % **	3.6 % **
Asian-Pacific American	12.4	16.3	20.4	9.2 **	12.6 **	15.6 **
Subcontinent Asian American	1.2	2.4	4.0	1.0	1.2 **	2.3 **
Hispanic American	6.3	7.9	12.0	9.5 **	12.0 **	15.2 **
Native American	0.4	0.8	0.7	0.5	1.1	0.8
Other minority group	0.1	0.9	0.4	0.1	0.9	0.3
Total minority	24.7 %	32.9 %	42.3 %	23.3 %	31.4 %	37.7 %
Non-Hispanic white	75.3	67.1	57.7	76.7	68.6	62.3
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	40.4 %	44.3 %	47.4 %	32.9 % **	34.9 % **	32.7 % **
Male	59.6	55.7	52.6	67.1	65.1	67.3
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
United States						
United States	Workers 25+ with college degree			Professional services industry workforce		
	1990 (n=1,259,268)	2000 (n=1,631,919)	2008-12 (n=452,396)	1990 (n=48,187)	2000 (n=83,976)	2008-12 (n=20,835)
Race/ethnicity						
Black American	6.1 %	6.8 %	8.2 %	3.8 % **	4.9 % **	5.6 % **
Asian-Pacific American	3.9	5.2	6.7	3.1 **	4.1 **	5.2 **
Subcontinent Asian American	1.0	1.7	2.8	0.8 **	1.1 **	1.5 **
Hispanic American	3.3	4.4	6.8	4.6 **	6.1 **	8.2 **
Native American	0.3	0.7	0.7	0.4	0.7	0.7
Other minority group	0.0	0.4	0.2	0.1	0.4	0.2
Total minority	14.7 %	19.1 %	25.3 %	12.8 %	17.3 %	21.4 %
Non-Hispanic white	85.3	80.9	74.8	87.2 **	82.7	78.6
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	41.6 %	45.6 %	48.8 %	32.6 % **	34.3 % **	33.3 % **
Male	58.4	54.4	51.2	67.4	65.7	66.7
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between professional services workers and workers in all industry groups for the given Census/ACS year is statistically significant at the 95% confidence level.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Micro-sample data. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Other Services Industry

The Study Team also examined how employment may potentially influence the number of minority and female entrepreneurs working in the other services industry. For this analysis, and throughout the marketplace appendices, “other services” includes automotive repair and maintenance, investigation and security services, printing and related support activities, and bus service and urban transit.

Figure D-12 compares the racial/ethnic and gender composition of other services workers to that of workers in all industries.

Race/ethnicity. In 2008 through 2012, about 70 percent of the workforce in the other services industry in SFMTA’s market area was made up of minorities. Of that workforce:

- About 13 percent was made up of Black Americans;
- About 23 percent was made up of Asian-Pacific Americans;
- About 2 percent was made up of Subcontinent Asian Americans;
- About 32 percent was made up of Hispanic Americans; and
- Approximately 1 percent was made up of Native Americans.

Other minorities comprised about one-half of 1 percent of the other services workforce in SFMTA’s market area in 2008 through 2012.

In 2008 through 2012, Black Americans and Hispanic Americans comprised a statistically larger percentage of workers in the other services industry than all workers. Black Americans (13%) and Hispanic Americans (32%) in the other services industry in SFMTA’s market area were overrepresented when compared to all workers in the marketplace (6 percent and 27 percent, respectively.) In 2008 through 2012, Subcontinent Asian Americans made up approximately 2 percent of the other services market in SFMTA’s market area, compared to 4 percent of the total workforce.

In California and the United States, differences for most minority groups were statistically significant and showed slight underrepresentation for most minority groups but an overrepresentation of Black Americans and Hispanic Americans in the other services industry.

Gender. Compared to their representation among workers in all industries, relatively few women work in the other services industry. In 2008 through 2012, women represented about 20 percent of other services workers in the relevant geographic market area but 46 percent of workers in all industries.

Figure D-12.
Demographics of workers in other services and all industries, 1990, 2000 and 2008-2012

SFMTA's market area	All industries			Other services industry workforce		
	1990 (n= 111,429)	2000 (n=117,385)	2008-2012 (n=152,517)	1990 (n=3,197)	2000 (n=2,659)	2008-2012 (n=3,044)
Race/ethnicity						
Black American	7.8 %	6.9 %	6.0 %	10.3 % **	12.8 % **	12.5 % **
Asian-Pacific American	16.1	22.0	23.6	13.1 **	19.1	22.5
Subcontinent Asian American	1.0	2.9	4.0	0.6 **	2.1	2.3 **
Hispanic American	15.5	17.6	26.5	15.9	22.9 **	31.5 **
Native American	0.6	0.9	0.7	0.9	1.3	1.0
Other minority group	0.1	1.0	0.4	0.2	1.2	0.5
Total minority	41.2 %	51.3 %	61.3 %	40.9 %	59.4 %	70.3 %
Non-Hispanic white	58.8	48.7	38.7	59.1	40.6	29.7
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	45.0 %	45.3 %	45.6 %	28.4 % **	22.7 % **	19.4 % **
Male	55.0	54.7	54.4	71.6	77.3	80.6
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

California	All industries			Other services industry workforce		
	1990 (n= 737,637)	2000 (n=788,333)	2008-2012 (n=886,178)	1990 (n=20,128)	2000 (n=19,538)	2008-2012 (n=19,188)
Race/ethnicity						
Black American	6.4 %	6.3 %	6.0 %	7.4 % **	9.6 % **	10.7 % **
Asian-Pacific American	8.3	11.1	13.1	6.8 **	9.0 **	10.8 **
Subcontinent Asian American	0.6	1.1	1.7	0.4 **	0.7	1.1 **
Hispanic American	23.4	27.6	35.2	24.4 **	33.1 **	40.7 **
Native American	0.8	1.2	0.9	0.9	1.5	0.9
Other minority group	0.2	0.9	0.3	0.2	1.3	0.3
Total minority	39.5 %	48.2 %	57.3 %	40.1 %	55.1 %	64.5 %
Non-Hispanic white	60.5	51.8	42.7	59.9	44.9	35.5
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	43.4 %	45.1 %	45.6 %	25.8 % **	20.6 % **	19.9 % **
Male	56.6	54.9	54.4	74.2	79.4	80.1
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

United States	All industries			Other services industry workforce		
	1990 (n=6,186,952)	2000 (n=6,832,970)	2008-2012 (n=1,518,166)	1990 (n=163,554)	2000 (n=160,537)	2008-2012 (n=31,193)
Race/ethnicity						
Black American	10.5 %	10.9 %	11.9 %	10.6 %	13.0 % **	15.9 % **
Asian-Pacific American	2.4	3.4	4.3	1.7 **	2.5 **	3.0 **
Subcontinent Asian American	0.4	0.7	1.2	0.3 **	0.4 **	0.7 **
Hispanic American	8.1	10.7	15.2	8.7 **	12.3 **	16.9 **
Native American	0.7	1.2	1.1	0.6 **	1.2	1.1
Other minority group	0.1	0.4	0.2	0.1	0.5	0.3
Total minority	22.1 %	27.3 %	33.9 %	22.0 %	29.9 %	37.7 %
Non-Hispanic white	77.9	72.7	66.1	78.0	70.1	62.3
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	45.3 %	46.5 %	47.2 %	29.0 % **	23.3 % **	22.8 % **
Male	54.7	53.5	52.8	71.0	76.7	77.2
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between workers in the construction industry and all industries for the given Census/ACS year is statistically significant at the 95% confidence level.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Summary

The Study Team's analysis suggests that there are barriers to entry for certain minority groups and for women in the construction, professional services, and other services industries in SFMTA's market area. For the construction industry, there appears to be barriers to advancing within the industry that continue through occupational advancement.

- Fewer Black Americans worked in the construction industry in SFMTA's market area than what might be expected based on their representation in the overall workforce. For professional services, barriers may begin with education for certain minority groups.
- Women accounted for particularly few workers in SFMTA's market area construction, professional services, and other services industries.
- Lack of education appears to be a barrier to entry into the professional services industry in SFMTA's market area for Black Americans, Asian-Pacific Americans, Hispanic Americans, Native Americans and Other minorities. Workers in each of those groups were less likely to have a four-year college degree compared to non-Hispanic whites. For Black Americans and Hispanic Americans, disparities in educational attainment appear at the high school level, which may affect college opportunities.
- In 2008-2012, there were fewer women than men in the professional services industry in SFMTA's market area, despite the fact that more women had attained four-year college degrees.

Barriers to advancement in the construction industry may also be an important reason for the relatively low number of minority and female business owners.

- Representation of minorities and women was much lower in certain construction trades (including first-line supervisors) compared with others.
- Excluding Subcontinent Asian Americans, all other minority groups in the construction industry were less likely to be managers than non-Hispanic whites.

APPENDIX E

APPENDIX E

Business Ownership in Transit-related Industries in SFMTA's Market Area

About 26 percent of all workers in the construction industry in SFMTA's market area were self-employed business owners in 2008-2012.⁸⁵ Fourteen percent of workers in the professional services industry in SFMTA's market area were self-employed business owners.⁸⁶ Eleven percent of workers in the other services industry in the local market area were self-employed business owners. Focusing on those three industries, the Study Team examined business ownership for different racial, ethnic, and gender groups in SFMTA's market area. The Study Team used Public Use Microdata Samples (PUMS) from the 1990 and 2000 Census and from the 2008-2012 ACS to study business ownership rates in the construction, professional services, and other services industries. Note that "self-employment" and "business ownership" are used interchangeably in Appendix E.

Business Ownership Rates

Many studies have explored differences between minority and non-minority business ownership at the national level. Although overall self-employment rates have increased for minorities and women over time, a number of studies indicate that race/ethnicity and gender continue to affect opportunities for business ownership.⁸⁷ The extent to which such individual characteristics may limit business ownership opportunities differs across industries and between regions.

Construction industry. Compared to other industries, construction has a relatively high rate of business ownership. In 2008-2012, in the relevant local marketplace, 11 percent of workers across all industries were self-employed (in incorporated or unincorporated businesses). Twenty-six percent of workers in the construction industry were self-employed. However, rates of self-employment in the construction industry vary by race, ethnicity, and gender. Figure E-1 shows the percentage of workers who were self-employed in the construction industry in SFMTA's market area by group for 1990, 2000, and 2008-2012. Figure E-1 also reports corresponding sample sizes for those percentages. Results for SFMTA's market area are compared with national statistics.

⁸⁵ In this appendix and other marketplace appendices, SFMTA's construction relevant geographic marketplace is defined as San Francisco, Alameda, San Mateo, Santa Clara, and Los Angeles Counties. SFMTA's professional services and other services relevant geographic marketplaces are defined as San Francisco, Alameda, San Mateo, and Santa Clara Counties.

⁸⁶ In this appendix and other marketplace appendices, information for "professional services" refers to architectural, engineering and related services and advertising and related industries. "Other services" refers to automotive repair and maintenance; investigation and security service; printing and related support activities; and bus service and urban transit.

⁸⁷ See, for example, Waldinger, Roger and Howard E. Aldrich. 1990. *Ethnicity and Entrepreneurship*. Annual Review of Sociology. 111-135; Fairlie, Robert W. and Bruce D. Meyer. 1996. *Ethnic and Racial Self-Employment Differences and Possible Explanations*. The Journal of Human Resources, Volume 31, Issue 4, 757-793.; Fairlie, Robert W. and Alicia M. Robb. 2007. *Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances and Business Human Capital*. Journal of Labor Economics, 25(2), 289-323; and Fairlie, Robert W. and Alicia M. Robb. 2006. *Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses*. Russell Sage Foundation.

Business ownership rates in 2000. Using the 2000 Census, in 2000, 30 percent of non-Hispanic whites working in SFMTA’s market area in the construction industry were self-employed. Except for Asian-Pacific Americans and other minority groups, business ownership rates were lower for each minority group.

Figure E-1.
Percentage of workers in the construction industry who were self-employed, 1990, 2000 and 2008-2012

SFMTA's market area	1990	2000	2008-2012	Sample size		
				1990	2000	2008-2012
Race/ethnicity						
Black American	14.0 % **	19.2 % **	22.4 % **	944	800	628
Asian-Pacific American	19.5 **	30.5	32.5	1,059	1,142	1,666
Subcontinent Asian American	13.8 **	21.2	30.9	68	69	75
Hispanic American	9.7 **	14.6 **	21.7 **	7,178	7,877	11,620
Native American	15.5 **	20.3	24.8	116	164	148
Other race minority	19.9	30.1	31.3	36	191	58
Non-Hispanic white	24.3	29.6	32.3	9,518	6,562	6,701
Gender						
Female	12.6 % **	12.9 % **	13.2 % **	1,837	1,632	1,841
Male	18.4	23.0	26.7	17,082	15,173	19,055
All individuals	17.9 %	22.1 %	25.6 %	18,919	16,805	20,896
United States						
	1990	2000	2008-2012	Sample size		
	1990	2000	2008-2012	1990	2000	2008-2012
Race/ethnicity						
Black American	10.5 % **	15.2 % **	19.7 % **	25,166	26,752	4,829
Asian-Pacific American	14.5 **	21.3 **	25.0 *	3,889	5,297	1,524
Subcontinent Asian American	10.1 **	17.9 **	31.2	589	725	231
Hispanic American	11.1 **	12.2 **	17.5 **	36,411	66,531	18,096
Native American	12.6 **	19.2 **	20.7 **	4,397	8,089	1,712
Other race minority	14.4 **	23.9	19.2 **	255	1,923	208
Non-Hispanic white	21.0	25.4	27.2	339,345	371,152	72,578
Gender						
Female	13.5 % **	16.8 % **	16.2 % **	39,376	46,791	9,679
Male	19.7	23.3	25.1	370,676	433,678	89,499
All individuals	19.1 %	22.6 %	24.3 %	410,052	480,469	99,178

Note: * ** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male groups) for the given Census/ACS year is statistically significant at the 90% or 95% confidence level, respectively.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

- About 15 percent of Hispanic Americans in the construction industry in SFMTA’s market area owned their businesses, substantially lower than the rate of non-Hispanic whites.
- Black Americans in the construction industry in SFMTA’s market area owned businesses at a rate of only about 19 percent, substantially lower than the rate of non-Hispanic whites.

- Twenty-one percent of Subcontinent Asian Americans working in the construction industry in SFMTA's market area were self-employed, lower than the rate of non-Hispanic whites but not a statistically significant difference.
- The ownership rate of Native Americans in the construction industry in SFMTA's market area was 20 percent, lower than that for non-Hispanic whites but not a statistically significant difference.

Compared with about 23 percent of men, 13 percent of women working in the construction industry in SFMTA's market area were self-employed in 2000. That difference was consistent with gender trends observed for the entire nation.

Changes in business ownership rates since 2000. Business ownership rates in the construction industry increased among all groups between 1990 and 2000 and again between 2000 and 2008-2012. Note that this trend covers the recession which began in late 2007. In 2008-2012, 32 percent of non-Hispanic whites working in the construction industry in SFMTA's market area were self-employed, compared with 30 percent in 2000. Although minority groups also had higher rates of business ownership in 2008-2012 than in 2000, business ownership rates for minorities continued to be lower than for non-Hispanic white construction workers.

- In 2008-2012, a substantially smaller percentage of Hispanic Americans (22%) than non-Hispanic whites (32%) were business owners in the construction industry in SFMTA's market area.
- The business ownership rate of Black Americans was about 22 percent, substantially lower than that for non-Hispanic whites in SFMTA's market area.

Asian-Pacific Americans continued to own businesses at a similar rate to non-Hispanic whites in 2008-2012. Native American, Subcontinent Asian American, and other minority construction workers had lower business ownership rates than that for non-Hispanic whites but those differences were not statistically significant.

Substantial differences in business ownership rates persisted between women (13%) and men (27%) in 2008-2012, consistent with national trends.

Professional services industry. The Study Team also examined business ownership rates in the professional services industry. Figure E-2 presents the percentage (and corresponding sample sizes) of workers who were self-employed in the professional services industry in 1990, 2000, and 2008-2012.

Business ownership rates in 2000. In 2000, about 16 percent of non-Hispanic whites working in the professional services industry in SFMTA's market area were self-employed. Most minority groups had lower rates of business ownership than non-Hispanic whites.

- Hispanic Americans had a business ownership rate of about 8 percent, approximately half the rate of non-Hispanic whites.
- The business ownership rate of Black Americans was about 5 percent, substantially lower than that for non-Hispanic whites.

- About 10 percent of Asian-Pacific Americans working in the professional services industry were self-employed, lower than the rate of non-Hispanic whites but not a statistically significant difference.
- The ownership rate of other minorities working in the professional services industry was 9 percent, lower than the rate of non-Hispanic whites but not a statistically significant difference.
- The ownership rate of Subcontinent Asian Americans was 14 percent, lower than the rate of non-Hispanic whites but not a statistically significant difference.

Figure E-2.
Percentage of workers in the professional services industry who were self-employed, 1990, 2000 and 2008-2012

SFMTA's market area	1990	2000	2008-2012	Sample size		
				1990	2000	2008-2012
Race/ethnicity						
Black American	12.3 %	5.2 % **	8.6 % **	41	98	82
Asian-Pacific American	14.0	10.1	12.1 **	166	462	622
Subcontinent Asian American	12.8 †	14.3	1.9 **	16	48	119
Hispanic American	13.8	7.9	9.3 **	79	165	287
Native American	26.1 †	29.6 †	12.9 †	6	18	12
Other race minority	88.4 †	9.4 †	0.0 †	4	19	11
Non-Hispanic white	18.7	15.6	17.1	985	1,584	1,683
Gender						
Female	9.9 % **	10.3 % **	9.4 % **	451	955	969
Male	22.3	15.8	16.6	846	1,439	1,847
All individuals	17.9 %	13.6 %	14.1 %	1,297	2,394	2,816
United States						
	1990	2000	2008-2012	Sample size		
	1990	2000	2008-2012	1990	2000	2008-2012
Race/ethnicity						
Black American	5.8 % **	5.8 % **	5.9 % **	1,570	3,754	918
Asian-Pacific American	10.3 **	8.4 **	8.2 **	1,516	3,412	1,065
Subcontinent Asian American	11.7 **	6.4 **	8.8 **	392	874	316
Hispanic American	11.8 **	8.2 **	9.5 **	2,112	5,036	1,487
Native American	13.3	12.9	13.0	195	653	164
Other race minority	30.1	12.7	6.0 **	28	357	55
Non-Hispanic white	16.5	15.1	13.9	42,377	69,897	16,873
Gender						
Female	9.0 % **	9.3 % **	9.2 % **	15,669	28,895	6,712
Male	18.9	16.2	14.4	32,521	55,088	14,166
All individuals	15.7 %	13.8 %	12.7 %	48,190	83,983	20,878

Note: *, ** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male groups) for the given Census/ACS year is statistically significant at the 90% or 95% confidence level, respectively.
 † Denotes small sample size.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

The professional services industry business ownership rate for Native Americans (30%) was higher in 2000 than that of non-Hispanic whites, but that difference was not statistically significant, partially due to small sample sizes.

During the same year, approximately 10 percent of women working in the professional services industry in SFMTA's market area were self-employed compared with 16 percent of men in the local professional services industry, a statistically significant difference.

Changes in business ownership rates since 2000. As shown in Figure E-2, the rate of business ownership rates for Subcontinent Asian Americans, Native Americans, and other minorities working in the professional services industry in SFMTA's market area fell between 2000 and 2008-2012, whereas the rate for non-Hispanic whites increased slightly to 17 percent.

- The business ownership rate for Hispanic Americans rose to 9 percent, still substantially lower than the rate of non-Hispanic whites.
- Black Americans had a business ownership rate of 9 percent, slightly more than one-half the rate of non-Hispanic whites.
- About 12 percent of Asian-Pacific Americans working in the professional services industry were self-employed, substantially lower than the rate of non-Hispanic whites.
- The business ownership rate for Subcontinent Asian Americans dropped to 2 percent in 2008-2012, a statistically significant difference.
- The business ownership rate for Native Americans and other minorities decreased between 2000 and 2008-2012, although this may partially be due to small sample sizes.

Women working in the professional services industry in SFMTA's market area continued to own businesses at a substantially lower rate than men in 2008-2012 (9% versus 17%, respectively).

Other services industry. The Study Team also examined business ownership rates in the other services industry. Figure E-3 presents the percentage (and corresponding sample sizes) of workers who were self-employed in the other services industry in 1990, 2000, and 2008-2012.

Business ownership rates in 2000. In 2000, about 13 percent of non-Hispanic whites working in the other services industry in SFMTA's market area were self-employed. Most minority groups had lower rates of business ownership than non-Hispanic whites.

- Hispanic Americans had a business ownership rate of about 7 percent, approximately half the rate of non-Hispanic whites.
- The business ownership rate of Black Americans was about 2 percent, less than one-sixth the rate of non-Hispanic whites.
- About 7 percent of Asian-Pacific Americans working in the other services industry were self-employed, substantially lower than the rate of non-Hispanic whites.
- The ownership rate of Native Americans was 3 percent, lower than the rate of non-Hispanic whites but not a statistically significant difference.

- The ownership rate of Subcontinent Asian Americans was 4 percent, lower than the rate of non-Hispanic whites but not a statistically significant difference.

Figure E-3.
Percentage of workers in the other services industry who were self-employed, 1990, 2000 and 2008-2012

SFMTA's market area	1990	2000	2008-2012	Sample size		
				1990	2000	2008-2012
Race/ethnicity						
Black American	7.2 % **	2.0 % **	4.1 % **	281	320	336
Asian-Pacific American	9.9 **	6.8 *	10.4 *	432	507	709
Subcontinent Asian American	6.2 †	3.6	7.1 **	21	57	83
Hispanic American	9.5 **	6.6 **	10.3 **	507	609	883
Native American	5.3 **	3.3	6.4	32	33	34
Other race minority	0.0 †	30.7	13.6 †	6	34	12
Non-Hispanic white	16.2	13.1	14.1	1,918	1,099	987
Gender						
Female	10.6 % **	5.3 % **	6.7 % **	390	620	617
Male	14.2	10.0	11.5	2,267	2,039	2,427
All individuals	13.2 %	8.9 %	10.6 %	3,197	2,659	3,044
United States						
Race/ethnicity						
Black American	6.0 % **	5.7 % **	5.2 % **	14,437	18,495	4,116
Asian-Pacific American	12.4 **	11.0 **	12.0 **	2,708	3,785	1,011
Subcontinent Asian American	12.4 *	9.4 **	10.5 **	473	663	206
Hispanic American	11.4 **	11.2 **	10.4 **	13,502	18,704	4,430
Native American	12.1 **	11.6 **	12.5	1,076	1,959	352
Other race minority	7.1 **	12.2	10.9	123	781	75
Non-Hispanic white	15.1	15.4	15.5	131,250	116,201	21,292
Gender						
Female	7.7 % **	7.1 % **	7.0 % **	47,627	37,758	7,629
Male	16.2	15.3	14.6	115,942	122,830	23,853
All individuals	13.8 %	13.4 %	12.8 %	163,569	160,588	31,482

Note: *, ** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male groups) for the given Census/ACS year is statistically significant at the 90% or 95% confidence level, respectively.
 † Denotes small sample size.

Source: The Study Team from 1990 and 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

The other services industry business ownership rate for other minorities (31%) was higher in 2000 than that of non-Hispanic whites, but that difference was not statistically significant.

During the same year, approximately 5 percent of women working in the other services industry were self-employed compared with 10 percent of men in the local other services industry, a statistically significant difference.

Changes in business ownership rates since 2000. As shown in Figure E-3, the rate of business ownership rates for most minority groups working in the other services industry in SFMTA’s market area increased between 2000 and 2008-2012, whereas the rate for non-Hispanic whites remained relatively stable.

- The business ownership rate for Hispanic Americans rose to 10 percent, still substantially lower than the rate of non-Hispanic whites.
- The business ownership rate for Black Americans increased to 4 percent, still substantially lower than the rate of non-Hispanic whites.
- About 10 percent of Asian-Pacific Americans working in the other services industry were self-employed, substantially lower than the rate of non-Hispanic whites.
- The business ownership rate for Subcontinent Asian Americans increased to 7 percent in 2008-2012, about one-half of the rate of non-Hispanic whites.
- The business ownership rate for other minorities decreased between 2000 and 2008-2012, although this may be due in part to small sample sizes.
- The business ownership rate for Native Americans increased between 2000 and 2008-2012, still less than half the rate of non-Hispanic whites.

Women working in the other services industry in SFMTA’s market area owned businesses at higher rates in 2008-2012 than in 2000, but women (7%) still owned other services businesses at a substantially lower rate than men (12%).

Potential causes of differences in business ownership rates. Researchers have examined whether there are disparities in business ownership rates after considering personal characteristics such as education and age. Several studies have found that disparities in business ownership still exist when accounting for such race- and gender-neutral factors.

- Some studies have concluded that access to financial capital is a strong determinant of business ownership. Researchers have consistently found a positive relationship between start-up capital and business formation, expansion, and survival.⁸⁸ In addition, one study found that housing appreciation measured at the Metropolitan Statistical Area (MSA) level is a positive determinant of becoming self-employed.⁸⁹ However, unexplained differences still exist when statistically controlling for those factors.⁹⁰

⁸⁸ See Lofstrom, Magnus and Chunbei Wang. 2006. *Hispanic Self-Employment: A Dynamic Analysis of Business Ownership*. Working paper, Forschungsinstitut zur Zukunft der Arbeit (Institute for the Study of Labor); and Fairlie, Robert W. and Alicia M. Robb. 2006. *Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses*. Russell Sage Foundation.

⁸⁹ Fairlie, Robert W. and Harry A. Krashinsky. 2006. Liquidity Constraints, Household Wealth and Entrepreneurship Revisited.

⁹⁰ Lofstrom, Magnus and Chunbei Wang. 2006. *Hispanic Self-Employment: A Dynamic Analysis of Business Ownership*. Working paper, Forschungsinstitut zur Zukunft der Arbeit (Institute for the Study of Labor).

- Education has a positive effect on the probability of business ownership in most industries. However, findings from multiple studies indicate that minorities are still less likely to own a business than non-minorities with similar levels of education.⁹¹
- Intergenerational links affect one’s likelihood of self-employment. One study found that experience working for a self-employed family member increases the likelihood of business ownership for minorities.⁹²
- Time since immigration and assimilation into American society are also important determinants of self-employment, but unexplained differences in business ownership between minorities and non-minorities still exist when accounting for those factors.⁹³

Business Ownership Regression Analysis

Race, ethnicity, and gender can affect opportunities for business ownership, even when accounting for other personal characteristics such as education, age, and familial ties. To further examine business ownership, the Study Team developed multivariate statistical models to explore patterns of business ownership in SFTMA’s market area. Those models estimate the effect of race/ethnicity and gender on the probability of self-employment while controlling for other potentially influential factors.

An extensive body of literature examines whether race- and gender-neutral factors such as access to financial capital, education, age, and family characteristics (e.g., marital status) help explain differences in business ownership. That subject has also been examined in disparity analyses. For example, disparity studies in Minnesota and Illinois have conducted econometric analyses investigating whether disparities in business ownership for minorities and women working in the combined construction and engineering industry remain after statistically controlling for other personal characteristics.^{94, 95} Those studies have incorporated probit econometric models using PUMS data from the 2000 Census and have been among materials submitted to courts in subsequent litigation concerning state implementation of the Federal DBE Program.

⁹¹ See Fairlie, Robert W. and Bruce D. Meyer. 1996. *Ethnic and Racial Self-Employment Differences and Possible Explanations*. The Journal of Human Resources, Volume 31, Issue 4, 757-793; and Butler, John Sibley and Cedric Herring. 1991. *Ethnicity and Entrepreneurship in America: Toward an Explanation of Racial and Ethnic Group Variations in Self-Employment*. Sociological Perspectives. 79-94.

⁹² See Fairlie, Robert W. and Alicia M. Robb. 2006. *Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses*. Russell Sage Foundation; and Fairlie, Robert W. and Alicia M. Robb. 2007. *Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances and Business Human Capital*. Journal of Labor Economics, 25(2), 289-323.

⁹³ See Fairlie, Robert W. and Bruce D. Meyer. 1996. *Ethnic and Racial Self-Employment Differences and Possible Explanations*. The Journal of Human Resources, Volume 31, Issue 4, 757-793; and Butler, John Sibley and Cedric Herring. 1991. *Ethnicity and Entrepreneurship in America: Toward an Explanation of Racial and Ethnic Group Variations in Self-Employment*. Sociological Perspectives. 79-94.

⁹⁴ National Economic Research Associates, Inc. 2000. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Minnesota Department of Transportation.

⁹⁵ National Economic Research Associates, Inc. 2004. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Illinois Department of Transportation.

The Study Team used similar probit regression models to predict business ownership from multiple independent or “explanatory” variables.⁹⁶ Independent variables included:

- Personal characteristics potentially linked to the likelihood of business ownership — age, age-squared, marital status, number of children in the household, number of elderly people in the household, and English-speaking ability;
- Indicators of educational attainment;
- Measures and indicators related to personal financial resources and constraints — home ownership, home value, monthly mortgage payment, dividend and interest income, and additional household income from a spouse or unmarried partner; and
- Variables representing the race/ethnicity and gender of the individual.

The Study Team developed three models using PUMS data from the 2008-2012 ACS:

- A probit regression model for the construction industry in SFMTA’s market area in 2008-2012 that included 19,346 observations;
- A probit regression model for the professional services industry in SFMTA’s market area in 2008-2012 that included 2,693 observations; and
- A probit regression model for the other services industry in SFMTA’s market area in 2008-2012 that included 2,806 observations.

Results specific to the construction industry in SFMTA’s market area. Figure E-4 presents the coefficients and t-statistics for the probit model for individuals working in the construction industry in 2008-2012. The model indicates that several neutral factors were important and statistically significant in predicting the probability of business ownership for workers in this industry:

- Older individuals were more likely to be business owners but the marginal effect was lower for the oldest individuals;
- Although home ownership decreased the likelihood of self-employment, the value of the home owned by the worker and higher mortgage payments were associated with a higher probability of business ownership;
- Greater interest and dividend income increased workers’ likelihood of owning a business; and
- Not completing high school as well as completion of some college without earning a four-year degree increased the probability of business ownership.

⁹⁶ Probit models estimate the effects of multiple independent or “predictor” variables in terms of a single, dichotomous dependent or “outcome” variable — in this case, business ownership. The dependent variable is binary, coded as “1” for individuals in a particular industry who are self-employed; “0” for individuals who are not self-employed. The model enables estimation of the probability that a worker in a given estimation sample is self-employed. The Study Team excluded observations where the Census Bureau had imputed values for the dependent variable, business ownership.

After controlling for race- and gender-neutral factors, statistically significant disparities in rates of business ownership remained for Black Americans, Hispanic Americans, and women working in the construction industry in SFMTA’s market area.

Figure E-4.
Construction industry
business ownership model,
2008-2012

Note:

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

The U.S. Census Bureau made a slight change to the disability question on the 2008 ACS and as a result, disability statistics are excluded from the 2008-2012 dataset and from this analysis.

Source:

The Study Team from 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient	t-statistic
Constant	-1.7650	-10.93 **
Age	0.0353	4.94 **
Age-squared	-0.0001	-1.69 *
Married	-0.0163	-0.56
Number of children in household	0.0070	0.59
Number of people over 65 in household	-0.0357	-1.15
Owns home	-0.2485	-5.14 **
Home value (\$000s)	0.0002	5.07 **
Monthly mortgage payment (\$000s)	0.0722	4.99 **
Interest and dividend income (\$000s)	0.0023	2.07 **
Income of spouse or partner (\$000s)	0.0002	0.65
Speaks English well	0.0002	0.01
Less than high school education	0.1027	3.78 **
Some college	0.0866	2.73 **
Four-year degree	0.0154	0.36
Advanced degree	-0.0597	-0.89
Black American	-0.2469	-2.86 **
Asian-Pacific American	0.0115	0.23
Subcontinent Asian American	0.0424	0.15
Hispanic American	-0.1937	-5.59 **
Native American	-0.1766	-1.12
Other race minority	0.1107	0.48
Female	-0.6374	-13.46 **

Simulations of business ownership rates. The probit modeling approach allowed for simulations of business ownership rates for minorities and women as if they had the same probability of self-employment as similarly situated non-Hispanic whites and males, respectively. To conduct those simulations, the Study Team took the following steps:

1. The Study Team performed a probit regression analysis predicting business ownership using only non-Hispanic white (or non-Hispanic white male) construction workers in the dataset.⁹⁷
2. The Study Team then used the coefficients from that model and the mean characteristics (i.e., personal characteristics, indicators of educational attainment, and indicators of personal financial resources and constraints) of individual minority groups (or women) working in the construction industry in SFMTA’s marketplace to estimate the probability of business ownership of such a group.

⁹⁷ That version of the model excluded the race/ethnicity and gender indicator variables, because the value of all of those variables would be the same (i.e., 0).

The results of those simulations yielded estimates of business ownership rates for non-Hispanic whites (or non-Hispanic white males) who shared the same characteristics of minorities (or women) working in the construction industry. Higher simulated rates indicate that, in reality, race/ethnicity or gender makes it less likely for minority- and women owned firms to own businesses than similarly-situated non-Hispanic whites (or non-Hispanic white males). The Study Team performed those calculations for only those groups for which race/ethnicity or gender was a statistically significant negative factor in business ownership (i.e., Black Americans, Hispanic Americans, and women; see Figure E-4).

Figure E-5 presents simulated business ownership rates (i.e., “benchmark”) for Black Americans, Hispanic Americans, and non-Hispanic white women, and compares them to the actual, observed mean probability of business ownership for those groups. The disparity index was calculated by taking the actual business ownership rate for each group and dividing it by each group’s benchmark, and then multiplying the result by 100. Values less than 100 indicate that, in reality, the group is less likely to own businesses than what would be expected for similarly-situated non-Hispanic whites (or non-Hispanic white males) — in other words that race/ethnicity (or gender) affects the likelihood of those groups owning businesses in the construction industry in SFMTA’s market area. Similar simulation approaches have been incorporated in other disparity studies that courts have reviewed.

Figure E-5.
Comparison of actual business ownership rates to simulated rates for construction workers in SFMTA’s market area, 2008-2012

Group	Self-employment rate		Disparity index (100 = parity)
	Actual	Benchmark	
Black American	22.8%	30.1%	76
Hispanic American	21.9%	26.3%	83
White female	15.4%	34.7%	44

Note: As the benchmark figure can only be estimated for records with an observed (rather than imputed) dependent variable, comparison is made with only this subset of the sample. For this reason, actual self-employment rates may differ slightly from those in Figure E-1.

Source: The Study Team from statistical models of 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Comparisons of the actual, observed business ownership rate of Black Americans in the construction industry with the benchmark based on simulated business ownership rates of similarly-situated non-Hispanic white construction workers showed that Black Americans own businesses at about 76 percent of the rate that would be expected of non-Hispanic white construction workers who share the same personal, financial, and educational characteristics. Hispanic Americans (disparity index of 83) also owned businesses at rates lower than what would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic white construction workers. White women (disparity index of 44) own businesses at less than half the rate that would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic white male construction workers.

Results specific to the professional services industry in SFMTA’s market area.

The Study Team developed a separate business ownership model for the professional services industry that was similar to the model that the Study Team developed for the construction industry. Figure E-6 presents the coefficients and t-statistics from the probit model predicting business ownership in the

professional services industry in SFMTA’s market area in 2008-2012. The following neutral factors were statistically significant predictors of business ownership for the professional services industry in 2008-2012:

- Older individuals were more likely to be business owners;
- Although home ownership decreased the likelihood of self-employment, the value of the home owned by the worker was associated with a higher probability of business ownership; and
- Additional household income from a spouse or unmarried partner was associated with a higher probability of business ownership.

When statistically controlling for race- and gender-neutral factors, the regression model for the professional services industry indicated that Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, other minority groups, and women working in the industry were less likely than non-Hispanic whites (or men) to own businesses.⁹⁸

Figure E-6.
Professional services industry business ownership model, 2008-2012

Note:

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

Due to small sample sizes, “other minority groups” contains Native Americans and Other race minorities.

Source:

The Study Team from 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient	t-statistic
Constant	-3.1619	-4.79 **
Age	0.0572	2.56 **
Age-squared	-0.0003	-1.34
Married	0.1438	1.62
Number of children in household	0.0367	0.80
Number of people over 65 in household	0.0068	0.08
Owens home	-0.3173	-2.68 **
Home value (\$000s)	0.0002	2.81 **
Monthly mortgage payment (\$000s)	0.0066	0.28
Interest and dividend income (\$000s)	0.0024	1.52
Income of spouse or partner (\$000s)	0.0009	1.73 *
Speaks English well	-0.0125	-0.03
Less than high school education	0.0706	0.20
Some college	0.3082	1.24
Four-year degree	0.3792	1.64
Advanced degree	0.3446	1.41
Black American	-0.1877	-0.63
Asian-Pacific American	-0.2335	-2.59 **
Subcontinent Asian American	-1.1322	-3.95 **
Hispanic American	-0.1245	-1.09
Other minority groups	-0.7353	-1.84 *
Female	-0.2742	-3.36 **

Simulations of business ownership rates. The Study Team also simulated business ownership rates in the professional services industry in SFMTA’s market area using the same approach as it used for the construction industry. Figure E-7 presents actual and simulated (“benchmark”) business ownership rates for minorities and white women in the professional services industry. The Study Team performed those calculations for which race/ethnicity or gender was a statistically significant

⁹⁸ Due to small sample sizes, “other minority groups” includes Native Americans and Other race minorities.

negative factor in business ownership (i.e., Asian-Pacific Americans, Subcontinent Asian Americans, other minority groups, and women; see Figure E-6).

Figure E-7.
Comparison of actual business ownership rates to simulated rates for workers in the professional services industry in SFMTA’s market area, 2008-2012

Group	Self-employment rate		Disparity index (100 = parity)
	Actual	Benchmark	
Asian-Pacific American	12.7%	18.0%	70
Subcontinent Asian American	2.0%	14.8%	14
Other minority groups	4.5%	16.2%	28
White female	11.5%	17.3%	66

Note: As the benchmark figure can only be estimated for records with an observed (rather than imputed) dependent variable, comparison is made with only this subset of the sample. For this reason, actual self-employment rates may differ slightly from those in Figure E-2.

Source: The Study Team from statistical models of 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Simulated business ownership rates indicated that Asian-Pacific Americans working in the industry own professional services firms at 70 percent of the rate observed for similarly-situated non-Hispanic whites (i.e., non-Hispanic whites who share the same personal, financial, and educational characteristics of Asian-Pacific American). Subcontinent Asian Americans own professional services firms at 14 percent of the rate observed for similarly-situated non-Hispanic whites. There were about 28 percent as many other minority-owned businesses as would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic whites.

Approximately 12 percent of non-Hispanic white women in the professional services industry in SFMTA’s market area were business owners in 2008-2012 compared with a benchmark business ownership rate of about 17 percent (a disparity index of 66).

Results specific to the other services industry in SFMTA’s market area. The Study Team developed a separate business ownership model for the other services industry that was similar to the model that the Study Team developed for the construction and professional services industries. Figure E-8 presents the coefficients and t-statistics from the probit model predicting business ownership in the other services industry in SFMTA’s market area in 2008-2012. The following neutral factors were statistically significant predictors of business ownership for the other services industry in 2008-2012:

- Older individuals were more likely to be business owners;
- Individuals with more children were more likely to be business owners;
- An increase in the number of people 65 and older living in the worker’s household decreased workers’ likelihood of owning a business;
- Home ownership increased the likelihood of self-employment. Additionally, the value of the home owned by the worker was associated with a higher probability of business ownership;
- Additional household income from a spouse or unmarried partner was associated with a higher probability of business ownership; and

- Attainment of an advanced degree increased the probability of business ownership.

When statistically controlling for race- and gender-neutral factors, the regression model for the other services industry indicated that Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and women working in the industry were less likely than non-Hispanic whites (or men) to own businesses.

Figure E-8.
Other services industry
business ownership model,
2008-2012

Note:

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

Source:

The Study Team from 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center:
<http://usa.ipums.org/usa/>.

Variable	Coefficient	t-statistic
Constant	-2.4759	-5.40 **
Age	0.0331	1.82 *
Age-squared	-0.0002	-1.04
Married	-0.0388	-0.41
Number of children in household	0.0935	2.35 **
Number of people over 65 in household	-0.1773	-2.53 **
Owens home	0.3027	2.47 **
Home value (\$000s)	0.0001	1.70 *
Monthly mortgage payment (\$000s)	0.0013	0.03
Interest and dividend income (\$000s)	0.0021	0.76
Income of spouse or partner (\$000s)	0.0021	2.19 **
Speaks English well	-0.0129	-0.09
Less than high school education	0.1937	1.32
Some college	0.1006	0.97
Four-year degree	0.1492	1.19
Advanced degree	0.4859	2.37 **
Black American	-0.4954	-3.60 **
Asian-Pacific American	-0.2333	-1.83 *
Subcontinent Asian American	-0.4437	-2.01 **
Hispanic American	-0.1074	-0.89
Native American	-0.2971	-0.65
Other race minority	-0.0192	-0.04
Female	-0.3224	-3.17 **

Simulations of business ownership rates. The Study Team also simulated business ownership rates in the other services industry in SFMTA’s market area using the same approach as it used for the construction and professional services industry. Figure E-9 presents actual and simulated (“benchmark”) business ownership rates for minorities and white women in the other services industry. The Study Team performed those calculations for which race/ethnicity or gender was a statistically significant negative factor in business ownership (i.e., Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans and women; see Figure E-8).

Figure E-9.
Comparison of actual business ownership rates to simulated rates for workers in the other services industry in SFMTA’s market area, 2008-2012

Group	Self-employment rate		Disparity index (100 = parity)
	Actual	Benchmark	
Black American	4.6%	10.2%	45
Asian-Pacific American	10.3%	17.6%	59
Subcontinent Asian American	7.9%	16.2%	49
White female	8.4%	17.7%	47

Note: As the benchmark figure can only be estimated for records with an observed (rather than imputed) dependent variable, comparison is made with only this subset of the sample. For this reason, actual self-employment rates may differ slightly from those in Figure E-3.

Source: The Study Team from statistical models of 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Simulated business ownership rates indicated that Black Americans working in the industry own other services firms at 45 percent of the rate observed for similarly-situated non-Hispanic whites (i.e., non-Hispanic whites who share the same personal, financial, and educational characteristics of Black Americans). There were about 59 percent as many Asian-Pacific American-owned businesses as would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic whites. Subcontinent Asian Americans had an actual business ownership rate of 8 percent, compared to a benchmark of 16 percent — less than half the rate of similarly situated non-Hispanic whites.

Approximately 8 percent of non-Hispanic white women in the other services industry were business owners in 2008-2012 compared with a benchmark business ownership rate of about 18 percent (a disparity index of 47).

Summary of Business Ownership in the Construction, Professional Services, and Other Services Industries

Disparities in business ownership were present in the construction industry in SFMTA’s market area:

- In both 2000 and 2008-2012, business ownership rates for Black Americans and Hispanic Americans were substantially lower than that of non-Hispanic whites. Business ownership rates were lower for other minority groups as well, but differences were not statistically significant.
- After statistically controlling for a number of neutral factors affecting business ownership, substantially fewer Black Americans and Hispanic Americans owned firms than would be expected if they owned businesses at the same rate as similarly-situated non-Hispanic whites in 2008-2012.
- In 2000 and in 2008-2012, women working in the construction industry had substantially lower rates of business ownership than men. After controlling for a number of race- and gender-neutral factors using 2008-2012 data, substantial disparities persisted in business ownership rates for women.

The Study Team also identified disparities in business ownership rates in the professional services industry in SFMTA’s market area:

- Most minorities working in the professional services industry were self-employed at substantially lower rates than non-Hispanic whites in 2008-2012, including Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and Hispanic Americans. Black Americans were also employed at substantially lower rates than non-Hispanic whites in 2000.
- In 2000 and in 2008-2012, women working in the professional services industry had substantially lower self-employment rates than men.
- The Study Team used regression models to investigate the presence of race/ethnicity- and gender-based disparities in business ownership rates in 2008-2012 after accounting for the effects of race- and gender-neutral factors. The results indicated substantial disparities for Asian-Pacific Americans, Subcontinent Asian Americans, other minority groups, and women.

The Study Team also identified disparities in business ownership rates in the other services industry in SFMTA's market area:

- All minority groups working in the other services industry were self-employed at lower rates than non-Hispanic whites in 2008-2012, a difference that was substantial for all minority groups except for Native Americans and other minorities. In 2000, Black Americans, Asian-Pacific Americans, and Hispanic Americans were self-employed at substantially lower rates than non-Hispanic whites.
- In 2000 and in 2008-2012, women working in the other services industry had substantially lower self-employment rates than men.
- The Study Team used regression models to investigate the presence of race/ethnicity- and gender-based disparities in business ownership rates in 2008-2012 after accounting for the effects of race- and gender-neutral factors. The results indicated substantial disparities for Black Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and women.

APPENDIX F

APPENDIX F

Access to Capital for Business Formation and Success

Access to capital is one of the factors researchers have examined when studying business formation and success. If discrimination exists in capital markets, minorities and women may have difficulty acquiring the capital necessary to start, operate, or expand businesses.^{99, 100}

Business ownership is affected by the capital a potential business owner has to start a business, as discussed in Appendix E. Researchers have also found that the amount of business start-up capital can affect long-term success.¹⁰¹ Minority- and women-owned firms, on average, have less start-up capital than majority-owned firms and male-owned firms:

- In 2007, 30 percent of majority-owned businesses responding to national U.S. Census Bureau survey indicated that they had start-up capital of \$25,000 or more.
- Only 17 percent of Black American-owned businesses indicated a comparable level of start-up capital;
- Disparities in start-up capital were identified for every other race/ethnic minority group except for Asian Americans; and¹⁰²
- Nineteen percent of female-owned firms reported start-up capital of \$25,000 or more compared with 32 percent of male-owned firms (not including firms that were equally owned by men and women).

Disparities in start-up capital can have long-term consequences, as can any race-, ethnicity- or gender-based discrimination in access to business loans after a firm is started.¹⁰³ Appendix F explores access to business capital, which relates closely to matters discussed in other appendices.

Appendix F first presents information about homeownership and mortgage lending, because home equity can be an important source of capital to start and expand businesses. The appendix then turns to

⁹⁹ For example, see: Mitchell, Karlyn and Douglas K. Pearce. 2005. "Availability of Financing to Small Firms Using the Survey of Small Business Finances." U.S. Small Business Administration, Office of Advocacy. 57.

¹⁰⁰ Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

¹⁰¹ *Ibid.*

¹⁰² Business owners were asked, "What was the total amount of capital used to start or acquire this business? (Capital includes savings, other assets, and borrowed funds of owner(s))." From U.S. Census Bureau, Statistics for All U.S. Firms by Total Amount of Capital Used to Start or Acquire the Business by Industry, Gender, Ethnicity, Race, and Veteran Status for the U.S.: 2007 Survey of Business Owners
http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO_2007_00CSCB16&prodType=table .

¹⁰³ Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

business loans, assessing whether minorities and females experience difficulty acquiring business capital.

Homeownership and Mortgage Lending

The Study Team analyzed homeownership and the mortgage lending industry to explore differences across race/ethnicity and gender that may lead to disparities in access to capital.

Homeownership. Wealth created through homeownership can be an important source of capital to start or expand a business.¹⁰⁴ Any barriers to homeownership and home equity growth for minorities or women can affect business opportunities by constraining their available funding. Similarly, any barriers to accessing home equity through home mortgages can also affect available capital for new or expanding businesses. In sum:

- A home is a tangible asset that provides borrowing power;¹⁰⁵
- Wealth that accrues from housing equity and tax savings from homeownership contributes to capital formation;¹⁰⁶
- Next to business loans, mortgage loans have traditionally been the second largest loan type for small businesses;¹⁰⁷ and
- Homeownership is associated with an estimated 30 percent reduction in the probability of loan denial for small businesses.¹⁰⁸

The Study Team analyzed homeownership rates and home values before considering loan denial and subprime lending.

Homeownership rates. Many studies document past discrimination in the national housing market. The United States has a history of restrictive real estate covenants and property laws that affect the ownership rights of minorities and women.¹⁰⁹ In the past, for example, a woman's participation in homeownership was secondary to that of her husband and parents.¹¹⁰ The study team used 2000 Census and 2008-2012 ACS data to examine homeownership rates in SFMTA's four- and five-county market

¹⁰⁴ The housing and mortgage crisis beginning in late 2006 has substantially impacted the ability of small businesses to secure loans through home equity. Later in this appendix, the Study Team discusses the consequences to small businesses and MBE/WBEs.

¹⁰⁵ Nevin, Allen. 2006. "Homeownership in California: A CBIA Economic Treatise." *California Building Industry Association*. 2.

¹⁰⁶ Jackman, Mary R. and Robert W. Jackman 1980. "Racial Inequalities in Home Ownership." *Social Forces*. 58. 1221-1234.

¹⁰⁷ Berger, Allen N. and Gregory F. Udell. 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking and Finance*. 22.

¹⁰⁸ Cavalluzzo, Ken and John Wolken. 2005. "Small Business Loan Turndowns, Personal Wealth and Discrimination." *Journal of Business*. 78:2153-2178.

¹⁰⁹ Ladd, Helen F. 1982. "Equal Credit Opportunity: Women and Mortgage Credit." *The American Economic Review*. 72:166-170.

¹¹⁰ Card, Emily. 1980. "Women, Housing Access, and Mortgage Credit." *Signs*. 5:215-219.

areas, California and in the United States.¹¹¹ Figure F-1 presents rates of homeownership for minority groups and non-Hispanic whites.

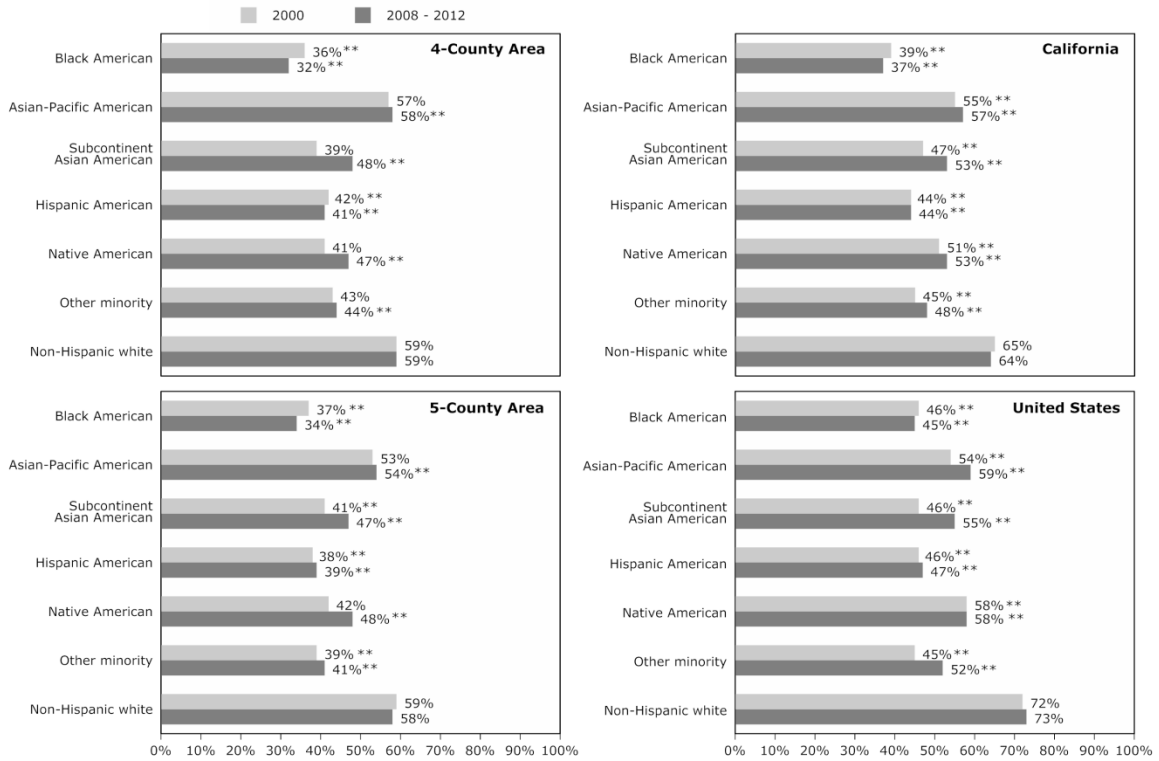
As shown in Figure F-1, approximately three-fifths of non-Hispanic white households owned homes in SFMTA's four-county market area in 2000, and homeownership rates were much lower for minorities.

- Approximately 36 percent of Black American households were homeowners in 2000;
- About 42 percent of Hispanic American households were homeowners in 2000;
- The homeownership rates in 2000 for Subcontinent Asian Americans and Asian-Pacific Americans were 39 percent and 57 percent, respectively; and
- Native American households owned homes at a rate of 41 percent.

Similar homeownership trends were also present in the five-county market area. Generally, rates of homeownership in SFMTA's four- and five-county market areas were lower than in California and in the nation as a whole.

¹¹¹ In this appendix and other marketplace appendices, SFMTA's construction industry is defined as San Francisco, Alameda, San Mateo, Santa Clara, and Los Angeles Counties. SFMTA's professional service and other services marketplaces are defined as San Francisco, Alameda, San Mateo, and Santa Clara Counties.

Figure F-1.
Homeownership rates, 2000 and 2008-2012



Note: The sample universe is all households.

** Denotes that the difference in proportions from non-Hispanic white for the given year is statistically significant at the 95% confidence level.

Source: The Study Team from 2000 U.S. Census and 2008-2012 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Disparities in homeownership rates between racial/ethnic minorities and non-minorities were also apparent in 2008-2012 in SFMTA's four-county market area. Although homeownership rates for most minority groups rose between 2000 and 2008-2012 in SFMTA's four-county market area, they were still below that of non-Hispanic whites (59%).¹¹² Lower rates of homeownership may, to an extent, reflect lower incomes for minorities. That relationship may be self-reinforcing, as low wealth puts individuals at a disadvantage in becoming homeowners, which has historically been a path to building wealth. An older study found statistically significant results indicating that the probability of homeownership is considerably lower for Black Americans than it is for comparable non-Hispanic whites throughout the United States.¹¹³ A 2001 study in Los Angeles found different results. Probabilities of homeownership for Black American households in south-central Los Angeles and San Bernardino County were found to be identical to non-Hispanic white households after accounting for types of income.¹¹⁴

Home values. Research has found homeownership and home values to be direct determinants of available capital to form or expand businesses.¹¹⁵ Using 2000 Census and 2008-2012 ACS data, the Study Team compared median home values by racial/ethnic group. Figure F-2 presents results for SFMTA's four- and five-county market areas, California, and the United States in 2000.

¹¹² Although not presented in this report, the Study Team also examined homeownership rates for heads of households working in the construction, professional services, and other services industries. Each minority group in the construction industry except Asian-Pacific Americans and each minority group in the professional services and other services industries had a lower rate of home ownership than non-Hispanic whites in SFMTA's relevant market areas.

¹¹³ Jackman. 1980. "Racial Inequalities in Home Ownership."

¹¹⁴ Gabriel, Stuart and Gary Painter. 2001. "Pathways to Homeownership: An Analysis of the Residential Location and Homeownership Choices of Black Households in Los Angeles." *USC Finance & Business Econ.* Working Paper No. 01-22.

¹¹⁵ Fairlie, Robert W. and Harry A. Krashinky. 2006. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited." IZA Discussion Paper. No. 2201.

Figure F-2.
Median home values, 2000



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

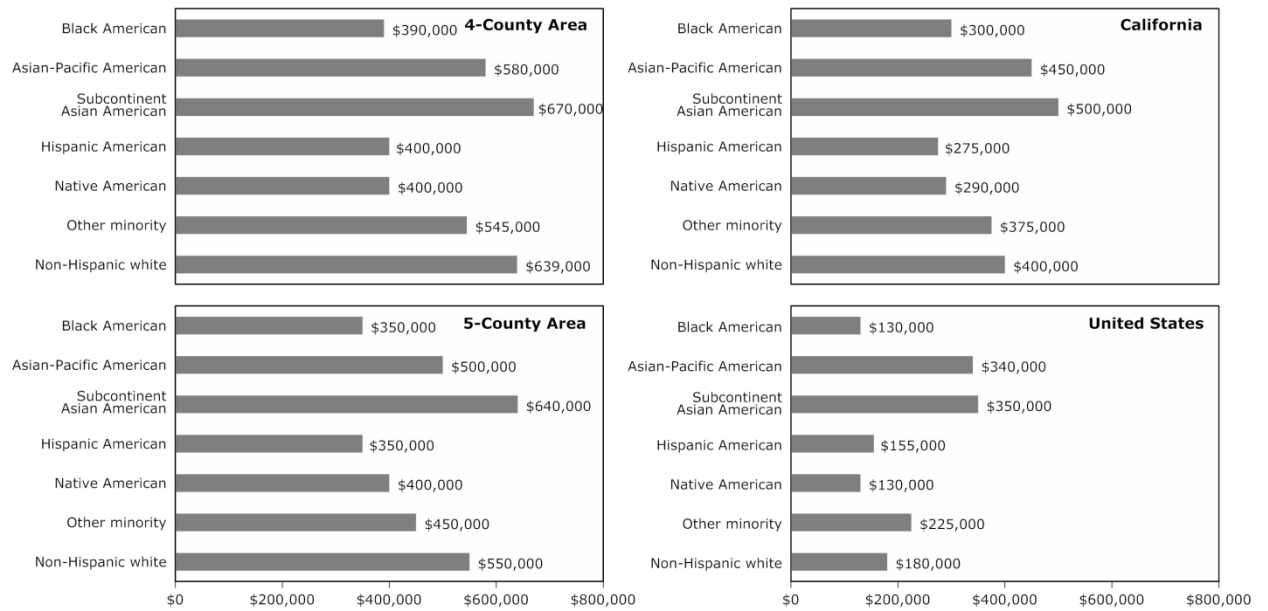
Source: The Study Team from 2000 U.S. Census data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

In 2000, the median home value of homes owned by non-Hispanic whites in SFMTA's four-county market area was \$450,000, substantially greater than the median value of homes owned by Black Americans (\$225,000), Hispanic Americans (\$275,000), Asian-Pacific Americans (\$350,000), other minorities (\$350,000), and Native Americans (\$350,000). On average, Subcontinent Asian Americans owned homes of similar values to non-Hispanic whites.

Figure F-3 presents median home values by racial/ethnic groups in SFMTA's four- and five-county market areas, California, and in the U.S. based on 2008-2012 ACS data. Similar to 2000 data, Black Americans, Hispanic Americans, Asian-Pacific Americans, other minorities, and Native Americans had substantially lower median home values than non-Hispanic whites in SFMTA's four-county market area. Median home values for Subcontinent Asian Americans were higher than non-Hispanic whites in SFMTA's four-county market area.

In the United States as a whole, Black Americans, Hispanic Americans, and Native Americans had substantially lower median home values than non-Hispanic whites. Asian-Pacific Americans, Subcontinent Asian Americans, and other minorities owned homes with higher median values than non-Hispanic whites in the United States.

Figure F-3.
Median home values, 2008-2012



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

Source: The Study Team from 2008-2012 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Mortgage lending. Minorities may be denied opportunities to own homes, to purchase more expensive homes, or to access equity in their homes if they are discriminated against when applying for home mortgages. In a recent lawsuit, Bank of America paid \$335 million to settle allegations that its Countrywide Financial unit discriminated against Black American and Hispanic American borrowers between 2004 and 2008. The case was brought by the Securities and Exchange Commission after finding evidence of “statistically significant disparities by race and ethnicity” among Countrywide Financial customers.¹¹⁶ A 2012 study extrapolated that Black American borrowers were offered high-cost loans at a rate exceeding that of identically situated Non-Hispanic whites. There was also evidence indicative of structural discrimination against borrowers categorized as Hispanic and, to a lesser extent, for women.¹¹⁷ Further, minority-owned businesses experience higher loan denial probabilities and pay higher interest rates than white-owned businesses even after controlling for differences in creditworthiness.¹¹⁸

The Study Team explored market conditions for mortgage lending in the relevant SFMTA market areas, California, and in the nation as a whole. The best available source of information concerning mortgage lending comes from HMDA data, which contain information on mortgage loan applications received by financial institutions, savings banks, credit unions, and some mortgage companies.¹¹⁹ Those data include information about the location, dollar amount, and types of loans made, as well as race/ethnicity, income, and credit characteristics of all loan applicants. The data are available for home purchases, loan refinances, and home improvement loans.

The Study Team examined HMDA statistics provided by the Federal Financial Institutions Examination Council (FFIEC) on conventional loan denial rates for high-income borrowers. Conventional loans are loans not insured by a government program. High-income borrowers are those households with 120 percent or more of the U.S. Department of Housing and Urban Development (HUD) area median family income.¹²⁰ Loan denial rates are calculated as the percentage of mortgage loan applications that were denied, excluding applications terminated by the potential borrowers.

¹¹⁶ Savage, Charlie. December 22, 2011. “\$335 Million Settlement on Countywide Lending Bias.” *NYTimes.com*. Available online at <http://www.nytimes.com/2011/12/22/business/us-settlement-reported-on-countrywide-lending.html>.

¹¹⁷ Maya Sen. 2012. “Quantifying Discrimination: Exploring the Role of Race and Gender and the Awarding of Subprime Mortgage Loans.” Available at SSRN: <http://ssrn.com/abstract=1593183>.

¹¹⁸ Robb, Alicia. 2012. “Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms and High-Tech Firms.” Small Business Administration.

¹¹⁹ Financial institutions were required to report 2012 HMDA data if they had assets of more than \$41 million (\$39 million for 2009 and \$35 million for 2006), have a branch office in a metropolitan area, and originated at least one home purchase or refinance loan in the reporting calendar year. Mortgage companies are required to report HMDA if they are for-profit institutions, had home purchase loan originations exceeding 10 percent of all loan obligations in the past year, are located in an Metropolitan Statistical Area (or originated five or more home purchase loans in an MSA) and either had more than \$10 million in assets or made at least 100 home purchase or refinance loans in the calendar year.

¹²⁰ The median family income in 2012 was about \$52,000 for the United States as a whole and \$58,000 for California (in 2013 dollars). Median family income for 2006 was about \$56,000 for the United States and \$64,000 for California (in 2013 dollars). Source: U.S. Census Bureau, 2012 and 2006 American Community Surveys.

The Study Team examined mortgage denial rates for 2006, 2009, and 2012. The 2006 data represent a more complete data set from before the recent mortgage crisis. Many of the institutions that originated loans in 2006 were no longer in business by the 2012 reporting date for HMDA data.¹²¹ For example, the 2006 HMDA data include information about nearly 500,000 loan applications in SFMTA's four-county market area processed by approximately 750 lenders. The 2012 HMDA data for the same area include information about slightly more than 400,000 loan applications processed by approximately 450 lenders. In addition, the percentage of government-insured loans, which were not included in the Study Team's analysis, increased dramatically between 2006 and 2012, thus decreasing the proportion of total loans that the Study Team analyzed in the 2012 data.¹²²

Figure F-4 presents loan denial results for the relevant SFMTA market areas, California, and the U.S. in 2006, 2009, and 2012. Those data show higher denial rates for minority high-income households than for non-Hispanic white high-income households. Among Black American high-income households applying for mortgages in SFMTA's four-county market area in 2012, 9 percent had their applications denied, higher than the 7 percent found for non-Hispanic white high-income households. Loan denial rates in 2012 were also higher for Native Americans (17%), Hispanic Americans (11%), Native Hawaiians or Other Pacific Islanders (8%), and Asian Americans (10%) compared with non-Hispanic whites.

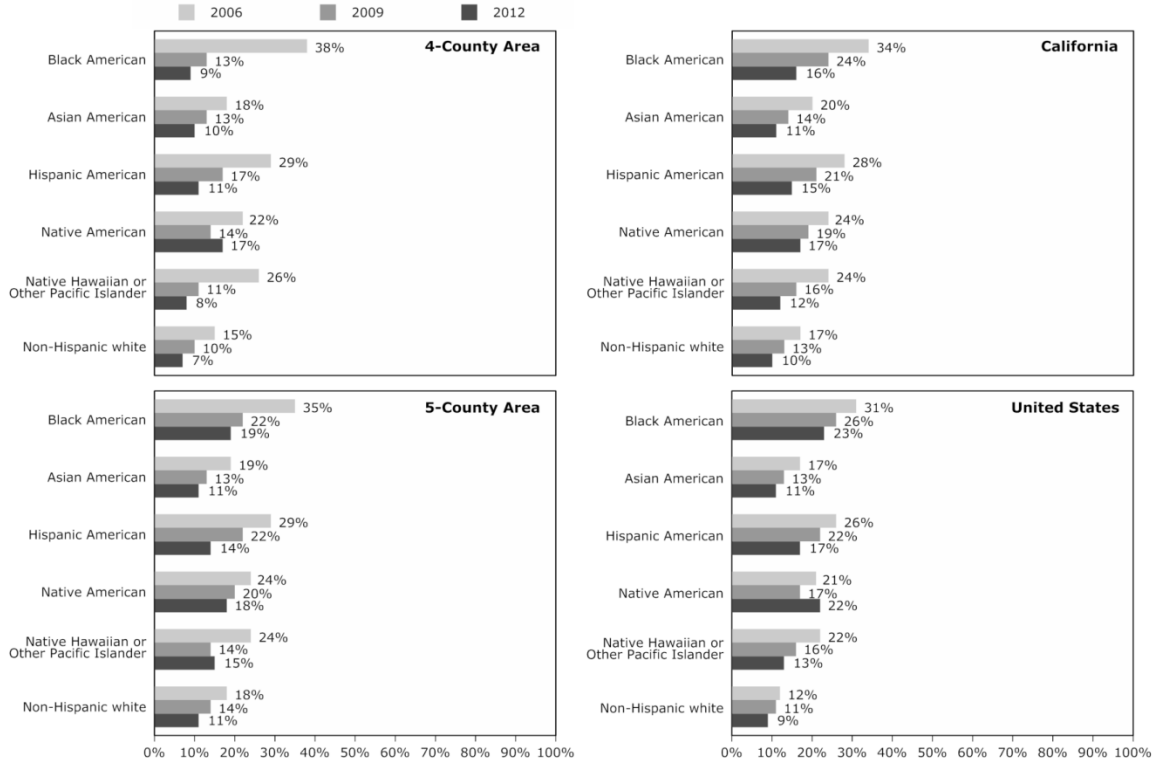
Compared to SFMTA's four-county market area, SFMTA's five-county market area had higher loan denial rates for certain high income minority groups in 2012. High income Black Americans (19%) and Native Hawaiian or Other Pacific Islanders (15%) had loan denial rates that were approximately twice as high as loan denial rates for the same race and ethnic groups in SFMTA's four-county market area.

Data for 2006 show higher denial rates for all groups in SFMTA's four-county market area compared with 2012. There were large disparities in loan denial rates for Black American, Hispanic American, Native Hawaiian or Other Pacific Islanders, and Native American high-income applicants compared with non-Hispanic white applicants. The loan denial rate for Asian American high-income applicants was also higher than non-Hispanic white high-income households in 2006.

¹²¹ According to an article by the Federal Reserve, the volume of reported loan applications and originations fell sharply from 2007 to 2008 after previously falling between 2006 and 2007. See Avery, Brevoort, and Canner, "The 2008 HMDA Data: The Mortgage Market during a Turbulent Year." Available online: <http://www.federalreserve.gov/pubs/bulletin/2009/pdf/hmda08draft.pdf>.

¹²² Loans insured by government programs have surged since 2006. In 2006, about 10 percent of first lien home loans were insured by a government program. More than half of home loans were insured by government in 2009. Source: "The 2009 HMDA Data: The Mortgage Market in a Time of Low Interest Rates and Economic Distress," *Federal Reserve Bulletin*, December 2010, pp A39-A77.

Figure F-4.
Denial rates of conventional purchase loans to high-income households, 2006, 2009 and 2012



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

Source: FFIEC HMDA data 2006, 2009 and 2012.

Additional research. Several national studies have examined disparities in loan denial rates and loan amounts for minorities in the presence of other influences. Examples include the following:

- A study by the Federal Reserve Bank of Boston is one of the most cited studies of mortgage lending discrimination.¹²³ It was conducted using the most comprehensive set of credit characteristics ever assembled for a study on mortgage discrimination.¹²⁴ The study provided persuasive evidence that lenders in the Boston area discriminated against minorities in 1990.¹²⁵
- Using the Federal Reserve Board’s 1983 Survey of Consumer Finances and the 1980 Census of Population and Housing data, logit statistical analysis revealed that minority households were one-third as likely to receive conventional loans as non-Hispanic white households after taking into account financial and demographic variables.¹²⁶
- Findings from a Midwest study indicate a relationship between race and both the number and size of mortgage loans. Data matched on socioeconomic characteristics revealed that Black American borrowers across 13 census tracts received significantly fewer loans and of small sizes compared to their white counterparts.¹²⁷

However, other studies have found that differences in preferences for Federal Housing Administration (FHA) loans — mortgage loans that are insured by the government — versus conventional loans among racial and ethnic groups may partly explain disparities found in conventional loan approvals between minorities and non-minorities.¹²⁸ Several studies have found that, historically, minority borrowers are far more likely to seek FHA loans than comparable non-Hispanic white borrowers across different income and wealth levels. The insurance on FHA loans protects the lender, but the borrower can be disadvantaged by higher borrowing costs.^{129, 130}

¹²³ Munnell, Alicia H., Geoffrey Tootell, Lynn Browne and James McEneaney. 1996. “Mortgage Lending in Boston: Interpreting HMDA Data.” *The American Economic Review*. 86: 25-53.

¹²⁴ Ladd, Helen F. 1998. “Evidence on Discrimination in Mortgage Lending.” *The Journal of Economic Perspectives*. 12:41-62.

¹²⁵ Yinger, John. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. New York: Russell Sage Foundation, 71.

¹²⁶ Canner, Glenn B., Stuart A. Gabriel and J. Michael Woolley. 1991. “Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets.” *Southern Economic Journal*. 58:249-262.

¹²⁷ Leahy, Peter J. 1985. “Are Racial Factors Important for the Allocation of Mortgage Money?: A Quasi-Experimental Approach to an Aspect of Discrimination.” *American Journal of Economics and Sociology*. 44:185-196.

¹²⁸ Canner. 1991. “Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets.”

¹²⁹ Yinger. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. 80.

¹³⁰ See definition of subprime loans discussed on the following page.

Studies on mortgage loan discrimination specific to SFMTA’s relevant market areas and California are more limited.

- HMDA data for California revealed disparities in prime and subprime lending for Black American, Hispanic American and Native American applicants. Differences extended across all MSAs.¹³¹
- An older study using HMDA data in Sacramento revealed that lending levels were low in minority concentrated areas but the primary determinant of lending could be explained by socioeconomic status measures such as median household income. In a stepwise regression model that controlled for socioeconomic status measures, ethnicity provided little explanation for varying levels of mortgage lending.¹³²
- A paired-testing approach revealed adverse treatment of Black Americans and Hispanics in Los Angeles in specific loan application cases. However, the overall pattern of treatment observed offered little evidence of systemic variation in the treatment of Black American and Hispanic American borrowers relative to non-Hispanic white borrowers in Los Angeles. The study also found more encouragement of minorities to pursue FHA loans than of non-Hispanic whites.¹³³

Subprime lending. Loan denial is only one of several ways minorities might be discriminated against in the home mortgage market. Mortgage lending discrimination can also occur through higher fees and interest rates. The housing market provides a unique environment for such types of discrimination through fees associated with various loan types.

Until recent years, one of the fastest growing segments of the home mortgage industry was subprime lending. From 1994 through 2003, subprime mortgage activity grew by 25 percent per year and accounted for \$330 billion of U.S. mortgages in 2003, up from \$35 billion a decade earlier. In 2006, subprime loans represented about one-fifth of all mortgages in the United States.¹³⁴ With higher interest rates than prime loans, subprime loans were historically marketed to customers with blemished or limited credit histories who would not typically qualify for prime loans. Over time, subprime loans also became available to homeowners who did not want to make a down payment, did not want to provide proof of income and assets, or wanted to purchase a home with a cost above that for which they would qualify from a prime lender.¹³⁵ Because of higher interest rates and additional costs, subprime loans affected homeowners’ ability to grow home equity while increasing their risk of foreclosure.

Although there is no standard definition of a subprime loan, there are several commonly-used approaches to examining rates of subprime lending. The Study Team used a “rate-spread method” —

¹³¹ Gee, Peter. 2004. *The Price of Credit: Prime and Subprime Lending in California 2004*. The Greenlining Institute.

¹³² Dingemans, Dennis. 1979. “Redlining and Mortgage Lending in Sacramento.” *Annals of the Association of American Geographers*. 69:225-239.

¹³³ Ross, Stephen, Margery Austin Turner, Erin Godfrey and Robin R. Smith. 2005. “Mortgage Lending in Chicago and Los Angeles: A Paired Testing Study of the Pre-Application Process.” *University of Connecticut Department of Economics*. Working Paper Series.

¹³⁴ Avery, Brevoort, and Canner, “The 2006 HMDA Data.” *Federal Reserve Bulletin*, December 2007, pp. A73-A109.

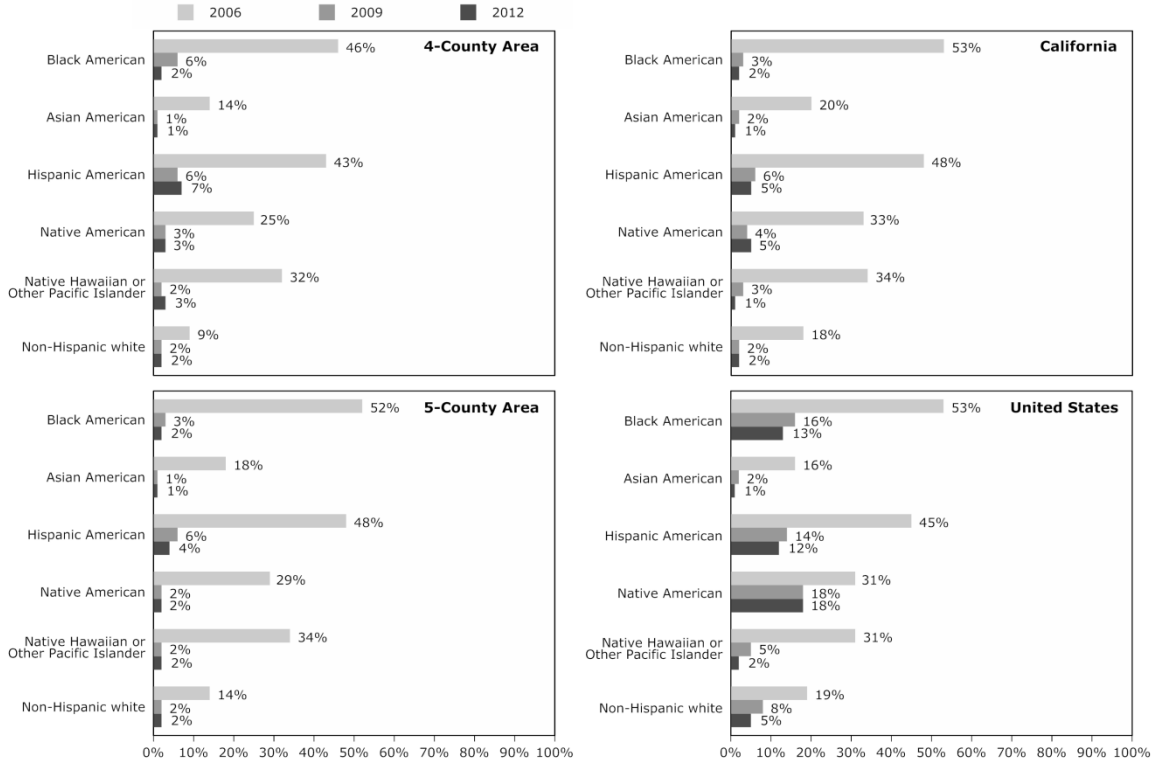
¹³⁵ Gerardi, Shapiro, and P. Willen. 2008. “Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure.” *Federal Reserve Bank of Boston*.

in which subprime loans are identified as those loans with substantially above-average interest rates — to measure rates of subprime lending in 2006, 2009, and 2012.¹³⁶ Because lending patterns and borrower motivations differ depending on the type of loan being sought, the Study Team separately considered home purchase loans and refinance loans. Patterns in subprime lending did not differ substantially between the different types of loans.

Figure F-5 shows the percent of conventional home purchase loans that were subprime in the relevant SFMTA market areas, California, and the United States, based on 2006, 2009, and 2012 HMDA data. The rates of subprime lending in 2009 and 2012 were dramatically lower overall than in 2006 due to the collapse of the mortgage lending market in the late 2000s.

¹³⁶ Prior to October 2009, first lien loans were identified as subprime if they had an APR 3.0 percentage points or greater than the federal treasury security rate of like maturity. As of October 2009, rate spreads in HMDA data were calculated as the difference between APR and Average Prime Offer Rate, with subprime loans defined as 1.5 percentage points of rate spread or more. The Study Team identified subprime loans according to these measures in the corresponding time periods.

Figure F-5.
Percent of conventional home purchase loans that were subprime, 2006, 2009, and 2012



Source: FFIEC HMDA data 2006, 2009 and 2012.

In SFMTA's four-county market area in 2006, 2009, and 2012, Black American, Hispanic American, and Native American borrowers were more likely to receive subprime home purchase loans than non-Hispanic whites.

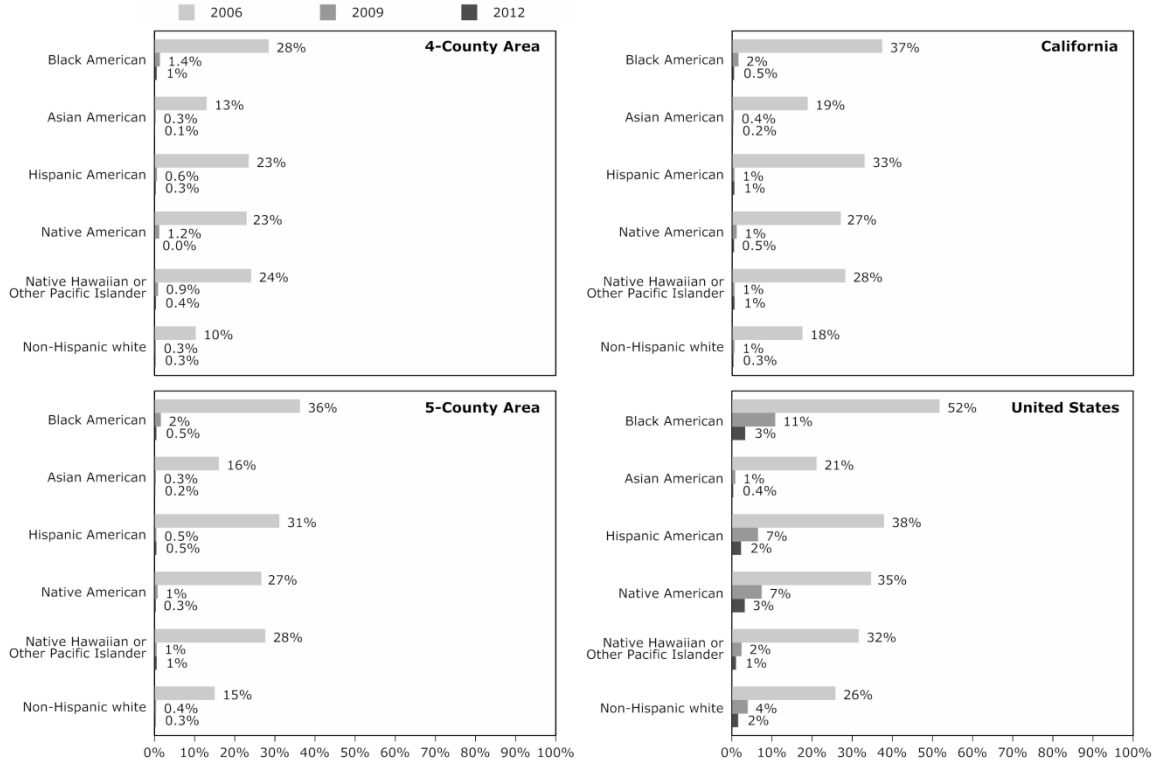
- In 2006, 9 percent of home purchase loans issued to non-Hispanic whites in were subprime.
- In contrast, 46 percent of home purchase loans that were issued to Black Americans were subprime.
- Similarly, 43 percent of home purchase loans that were issued to Hispanic Americans, 32 percent of home purchase loans issued to Native Hawaiians or Other Pacific Islanders, and 25 percent of home purchase loans issued to Native Americans were subprime.

Those subprime lending patterns were also observed in 2009 and 2012. In 2012, 2.0 percent of home purchase loans issued to non-Hispanic whites were subprime compared to 2.2 percent of home purchase loans issued to Black Americans, 6.6 percent of home purchase loans issued to Hispanic Americans, and 2.8 percent of home purchase loans issued to Native Americans.

Asian Americans who applied for home purchase loans in SFMTA's four-county market area were more likely than non-Hispanic whites to be issued subprime loans in 2006 but less likely to be issued subprime loans in 2009 and 2012.

Figure F-6 presents the percentage of home refinance loans that were subprime in the relevant SFMTA market areas, California and the United States. As with home purchase loans, the rates of subprime lending in 2009 and 2012 were dramatically lower for refinance loans than in 2006 due to the collapse of the mortgage lending market in the late 2000s.

Figure F-6.
Percent of conventional refinance loans that were subprime, 2006, 2009, and 2012



Source: FFIEC HMDA data 2006, 2009 and 2012.

Among borrowers receiving refinance loans in SFMTA's four-county market area in 2006, 2009, and 2012, Black Americans, Hispanic Americans, Native Hawaiians and Other Pacific Islanders, and Native Americans were more likely to receive subprime refinance loans than non-Hispanic whites. In 2006, about 28 percent of refinance loans issued to Black Americans, 23 percent of refinance loans issued to Hispanic Americans, 24 percent of refinance loans issued to Native Hawaiians or Other Pacific Islanders, and 23 percent of refinance loans issued to Native Americans were subprime. About 13 percent of refinance loans issued to Asian Americans in 2006 were subprime. In contrast, only 10 percent of refinance loans issued to non-Hispanic whites in 2006 were subprime.

By 2012, subprime loans made up a much smaller proportion of the total conventional home refinance loans issued in that year (in SFMTA's market areas, California, and the United States). The decrease in subprime refinance loans was evident for all racial and ethnic groups in SFMTA's relevant market areas. Black American, Hispanic American, and Native Hawaiians and Other Pacific Islanders households that received refinance loans in 2012 were still somewhat more likely than non-Hispanic whites to be issued a subprime loan.

Additional research. Some evidence suggests that lenders sought out and offered subprime loans to individuals who often would not be able to pay off the loan, a form of “predatory lending.”¹³⁷ Furthermore, some research has found that many recipients of subprime loans — including homeowners in California — could have qualified for prime loans.¹³⁸ Previous studies of subprime lending suggest that predatory lenders have disproportionately targeted minorities. A 2001 HUD study using 1998 HMDA data found that subprime loans were disproportionately concentrated in Black American neighborhoods compared with white neighborhoods, even after controlling for income.¹³⁹ For example, borrowers in upper-income Black American neighborhoods were six times more likely to refinance with a subprime loan than borrowers in upper-income white neighborhoods.

Implications of the recent mortgage lending crisis. The turmoil in the housing market since late 2006 has been far-reaching, resulting in the loss of home equity, decreased demand for housing, and increased rates of foreclosure.¹⁴⁰ Much of the blame has been placed on risky practices in the mortgage industry including substantial increases in subprime lending. As discussed above, the number of subprime mortgages increased at an extraordinary rate between the mid-1990s and mid-2000s. Those high-cost, high-interest loans increased from 8 percent of originations in 2003 to 20 percent in 2005 and 2006.¹⁴¹ The preponderance of subprime lending is important, because households that are repaying subprime loans have a higher likelihood of delinquency or foreclosure. A 2008 study

¹³⁷ Department of Housing and Urban Development (HUD) and the Department of Treasury. 2001. HUD-Treasury National Predatory Lending Task Force Report. *HUD*; Carr, J. and L. Kolluri. 2001. Predatory Lending: An Overview. *Fannie Mae Foundation*; and California Reinvestment Coalition, Community Reinvestment Association of North Carolina, Empire Justice Center, Massachusetts Affordable Housing Alliance, Neighborhood Economic Development Advocacy Project, Ohio Fair Lending Coalition and Woodstock Institute, 2008. “Paying More for the American Dream.”

¹³⁸ Freddie Mac. 1996, September. “Automated Underwriting: Making Mortgage Lending Simpler and Fairer for America's Families.” *Freddie Mac*. (accessed February 5, 2007); and Lanzerotti. 2006. “Homeownership at High Cost: Foreclosure Risk and High Cost Loans in California.” *Federal Reserve Bank of San Francisco*.

¹³⁹ Department of Housing and Urban Development (HUD) and the Department of Treasury. 2001.

¹⁴⁰ Joint Center for Housing Studies of Harvard University. 2008. “The State of the Nation's Housing.”

¹⁴¹ *Ibid.*

released from the Federal Reserve Bank of Boston found that, “homeownerships that begin with a subprime purchase mortgage end up in foreclosure almost 20 percent of the time, or more than six times as often as experiences that begin with prime purchase mortgages.”¹⁴²

In California, homeowners with delinquencies of 60 days or greater rose from about 52,500 per month in the first quarter of 2007 to about 171,000 per month in the first quarter of 2008.¹⁴³ By the first quarter of 2010, the number of delinquent loans increased to over 536,000 per month.¹⁴⁴ Furthermore, many homeowners lost equity in their homes. In December 2010, the proportion of residential properties in California with negative equity (i.e., a mortgage worth more than the value of the home) was 32 percent, one of the highest rates in the country.¹⁴⁵ In the last quarter of 2008, California led the country with a monthly average of 43,000 borrowers falling into negative equity. In total, California lost more than \$1.2 trillion in residential property value in 2008, which accounts for more than half of the national decline in housing values from 2007 to 2008.¹⁴⁶ Due to the higher rate of subprime mortgages among minority homeowners, those homeowners have reportedly been disproportionately affected in terms of foreclosures and loss of home equity.¹⁴⁷

Such problems substantially impact the ability of homeowners to secure capital through home mortgages to start or expand small businesses. That issue has been highlighted in statements made by members of the Board of Governors of the Federal Reserve System to the U.S. Senate and U.S. House of Representatives:

- On April 16, 2008, Frederic Mishkin informed the U.S. Senate Committee on Small Business and Entrepreneurship that “one of the most important concerns about the future prospects for small business access to credit is that many small businesses use real estate assets to secure their loans. Looking forward, continuing declines in the value of their real estate assets clearly have the potential to substantially affect the ability of those small businesses to borrow. Indeed, anecdotal stories to this effect have already appeared in the press.”¹⁴⁸
- On November 20, 2008, Randall Kroszner told the U.S. House of Representatives Committee on Small Business that “small business and household finances are, in practice, very closely intertwined. [T]he most recent SSBF indicated that about 15 percent of the total value of small business loans in 2003 was collateralized by ‘personal’ real estate. Because the condition of household balance sheets can be relevant to the ability of some small businesses to obtain credit, the fact that declining house prices have weakened household balance-sheet positions suggests

¹⁴² Gerardi, Shapiro, and P. Willen. 2008. “Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure.” *Federal Reserve Bank of Boston*.

¹⁴³ Olson, John. 2008. Understanding the Foreclosure Crisis in California. *Federal Reserve Bank of San Francisco*.

¹⁴⁴ HOPE NOW. 2011. State Loss Mitigation Data (December 2010). Available online: [http://www.hopenow.com/industry-data/State%20Loss%20Mitigation%20Data%20\(December\)%202-3-2011.pdf](http://www.hopenow.com/industry-data/State%20Loss%20Mitigation%20Data%20(December)%202-3-2011.pdf).

¹⁴⁵ CoreLogic. March 8, 2011. CoreLogic Negative Equity press release.

¹⁴⁶ First American CoreLogic. 2008. First American CoreLogic and Loan Performance Home Price Index Analytics.

¹⁴⁷ California Reinvestment Coalition, Community Reinvestment Association of North Carolina, Empire Justice Center, Massachusetts Affordable Housing Alliance, Neighborhood Economic Development Advocacy Project, Ohio Fair Lending Coalition and Woodstock Institute, 2008. “Paying More for the American Dream.”

¹⁴⁸ Mishkin, Frederic. 2008. “Statement of Frederic S. Mishkin, Member, Board of Governors of the Federal Reserve System before the Committee on Small Business and Entrepreneurship, U.S. Senate on April 16.”

that the housing market crisis has likely had an adverse impact on the volume and price of credit that small businesses are able to raise over and above the effects of the broader credit market turmoil.”¹⁴⁹

Federal Reserve Chairman Ben Bernanke recognized the reality of those concerns in a speech titled “Restoring the Flow of Credit to Small Businesses” on July 12, 2010.¹⁵⁰ Bernanke indicated that small businesses have had difficulty accessing credit and pointed to the declining value of real estate as one of the primary obstacles.

Furthermore, the National Federation of Independent Business (NFIB) conducted a national survey of 751 small businesses in late-2009 to investigate how the recession impacted access to capital.^{151, 152} NFIB concluded that “falling real estate values (residential and commercial) severely limit small business owner capacity to borrow and strains currently outstanding credit relationships.” Survey results indicated that 95 percent of small business employers owned real estate and 13 percent held upside-down property.¹⁵³

Another study analyzed the Survey of Consumer Finances to explore racial/ethnic disparities in wealth and how those disparities were impacted by the recession. The study showed that there are substantial wealth disparities between Black Americans and whites as well as between Hispanics and whites and that those wealth disparities worsened between 1983 and 2010. In addition to growing over time, the wealth disparity also grows with age — whites are on a higher accumulation curve than Black Americans and Hispanic Americans. The study also reports that the 2007 through 2009 recession exacerbated wealth disparities, particularly for Hispanic Americans.¹⁵⁴

Opportunities to obtain business capital through home mortgages appear to be limited especially for homeowners with little home equity. Furthermore, the increasing rates of default and foreclosure, especially for homeowners with subprime loans, reflect shrinking access to capital available through such loans. Those consequences are likely to have a disproportionate impact on minorities in terms of both homeownership and the ability to secure capital for business start-up and growth.

Redlining. Redlining refers to mortgage lending discrimination against geographic areas associated with high lender risk. Those areas are often racially determined, such as Black American or mixed-race neighborhoods.¹⁵⁵ That practice can perpetuate problems in already poor neighborhoods.¹⁵⁶ For

¹⁴⁹ Kroszner, Randall. 2008. “Effects of the financial crisis on small business.” *Testimony before the Committee on Small Business, U.S. House of Representative on November 20.*

¹⁵⁰ Bernanke, Ben. 2010. Restoring the Flow of Credit to Small Businesses. *Presented at the Federal Reserve Meeting Series: Addressing the Financing Needs of Small Businesses on July 12.*

¹⁵¹ The study defined a small business as a business employing no less than one individual in addition to the owner(s) and no more than 250 individuals.

¹⁵² National Federation of Independent Business (NFIB). 2010. Small Business Credit in a Deep Recession.

¹⁵³ Upside-down is defined as a mortgage that is worth more than the appraised value of the house.

¹⁵⁴ McKernan, Signe-Mary, Caroline Ratcliffe, Eugene Steverle and Sisi Zhang. 2013. “Less Than Equal: Racial Disparities in Wealth Accumulation.” Urban Institute.

¹⁵⁵ Holloway, Steven R. 1998. “Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio.” *Annals of the Association of American Geographers.* 88:252-276.

example, the City of East Palo Alto sued a California lender for redlining and having loan practices that discriminated against people in low-income or minority communities. Evidence included loan officers telling applicants that the bank simply did not lend in East Palo Alto or in specific minority neighborhoods.¹⁵⁷ The bank provided cash and a revolving loan fund in order to settle the lawsuit.

Most quantitative studies have failed to find strong evidence in support of geographic dimensions of lender decisions. Studies in Columbus, Ohio; Boston, Massachusetts; and Houston, Texas found that racial differences in loan denial had little to do with the racial composition of a neighborhood but rather with the individual characteristics of the borrower.¹⁵⁸ Some studies found the race of an applicant — but not the racial makeup of the neighborhood — to be a factor in loan denials.

Studies of redlining have primarily focused on the geographic aspect of lender decisions; however, redlining can also include the practice of restricting credit flows to minority neighborhoods through procedures that are not observable in actual loan decisions. Examples include branch placement, advertising, and other pre-application procedures.¹⁵⁹ Such practices can deter minorities from starting businesses. Locations of financial institutions are important to small business start up, because local banking sectors often finance local business.¹⁶⁰ Redlining practices would deny that resource to minorities.

Steering by real estate agents. Historically, differences in the types of loans that are issued to minorities have also been attributed to “steering” by real estate agents, who serve as an information filter.¹⁶¹ Some studies claim that real estate brokers provide different levels of assistance and different information on loans to minorities than they do to non-minorities.¹⁶² Such steering can affect the perception of minority borrowers about the availability of mortgage loans. Despite the fact that steering has been prohibited by law for many decades, a 2005 study found such practices in Los Angeles and other cities throughout the country.¹⁶³

Gender discrimination in mortgage lending. Relatively little information is available on gender-based discrimination in mortgage lending markets. Historically, lending practices overtly discriminated against women by requiring information on marital and childbearing status. Risk

¹⁵⁶ Ladd, Helen F. 1998. “Evidence on Discrimination in Mortgage Lending.” *The Journal of Economic Perspectives*. 12:41-62.

¹⁵⁷ “California bank pays \$206,000 and establishes \$7 million credit line for city to settle redlining suit.” *National Fair Housing Advocate Online*. http://www.fairhousing.com/index.cfm?method=page.display&pagename=advocate_october02_page5 (accessed February 8, 2007).

¹⁵⁸ See Holloway. 1998. “Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio.”; Tootell. 1996. “Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods?”; and Holmes, Andrew and Paul Horvitz. 1994. “Mortgage Redlining: Race, Risk, and Demand.” *The Journal of Finance*. 49:81-99.

¹⁵⁹ Yinger, John. 1995. “Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination.” Russell Sage Foundation. New York. 78-79.

¹⁶⁰ Holloway. 1998. “Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio.”

¹⁶¹ Kantor, Amy C. and John D. Nystuen. 1982. “De Facto Redlining a Geographic View.” *Economic Geography*. 4:309-328.

¹⁶² Yinger. 1995. Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination. 78-79.

¹⁶³ Galster, George and Erin Godfrey. 2005. “Racial Steering by Real Estate Agents in the U.S. in 2000.” *Journal of the American Planning Association*. 71:251-268.

associated with women of childbearing age and unmarried women resulted in “income discounting,” limiting the availability of loans to women.¹⁶⁴

The Equal Credit Opportunity Act (ECOA) in 1973 suspended such discriminatory lending practices. A study in California that used regression analysis explored discrimination against married and single women in 16 metropolitan areas from 1977 to 1978. The study revealed little evidence of sex discrimination in the state. However, certain barriers affecting women have persisted after 1973 in mortgage lending markets. For example, there is some past evidence that lenders under-appraised property for female borrowers.¹⁶⁵

Access to Business Capital

Barriers to capital markets can have significant impacts on small business formation and expansion. For example, during public hearings that Caltrans held in spring 2006, “discrimination in obtaining loans due to race and gender” was identified as an issue for businesses.¹⁶⁶ In addition, several studies have found evidence that start-up capital is important for business profits, longevity, and other outcomes.

- The amount of start-up capital is positively associated with small business sales and other outcomes;¹⁶⁷
- Black Americans, Hispanic Americans, and women start their firms with approximately half of the capital that non-Hispanic whites use.¹⁶⁸
- Limited access to capital has affected the size of Black American-owned businesses;^{169, 170} and
- Weak financial capital was identified as a significant reason that more Black American-owned firms than non-Hispanic white-owned firms closed over a four-year period.¹⁷¹

Bank loans are one of the largest sources of debt capital for small businesses.¹⁷² Discrimination in the application and approval processes of those loans and other credit resources could be detrimental to the success of minority- and women-owned businesses. Black American and Hispanic American business owners rely more heavily on owner equity investments and employ less debt from bank loans than do non-Hispanic white business owners. As a result they operate with substantially less capital

¹⁶⁴ Card. 1980. “Women, Housing Access, and Mortgage Credit.”

¹⁶⁵ Ladd, Helen F. 1982. “Equal Credit Opportunity: Women and Mortgage Credit.” *The American Economic Review*. 72:166-170.

¹⁶⁶ Caltrans Public Hearing Testimony and Related Documents. Examined and summarized by GCAP Services.

¹⁶⁷ See Fairlie, Robert W. and Harry A. Krashinsky. 2006. “Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited”; and Grown. 1991. “Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies.”

¹⁶⁸ Robb, Alicia. 2012. “Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms and High-Tech Firms.” Small Business Administration.

¹⁶⁹ Grown. 1991. “Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies.”

¹⁷⁰ Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

¹⁷¹ Grown. 1991. “Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies.”

¹⁷² Data from the 1998 SSBF indicates that 70 percent of loans to small business are from commercial banks. This result is present across all gender, race and ethnic groups with the exception of Black Americans, whose rate of lending from commercial banks is even greater than other minorities. See Blanchard, Lloyd, Bo Zhao and John Yinger. 2005. “Do Credit Market Barriers Exist for Minority and Woman Entrepreneurs.” *Center for Policy Research, Syracuse University*.

(both at startup and in subsequent years) relative to non-Hispanic whites. Women-owned businesses show similar disparities in capital structure.¹⁷³

Previous studies have addressed race/ethnicity and gender discrimination in capital markets by evaluating:

- Loan denial rates;
- Loan values;
- Interest rates;
- Business owners' fear that loan applications will be rejected;
- Sources of capital; and
- Relationships between start-up capital and business survival.

To examine the role of race/ethnicity and gender in capital markets, the Study Team analyzed data from the Federal Reserve Board's 1998 and 2003 SSBF — the most comprehensive national source of credit characteristics of small firms (those with fewer than 500 employees). The survey contains information on loan denial and interest rates as well as anecdotal information from firms. Sample weights are applied to provide representative estimates. The samples from 1998 and 2003 contain records for 3,521 and 4,240 firms, respectively.

The SSBF records the geographic location of the firm by Census Division — not by city, county, or state. The Pacific Census Division (referred to below as the Pacific region) contains California, along with Alaska, Washington, Oregon, and Hawaii. The Pacific region is the level of geographic detail of SSBF data most specific to SFMTA's market areas, and 2003 is the most recent information available from the SSBF because the survey was discontinued after that year.

Loan denial rates. Figure F-7 presents loan denial rates from the 1998 and 2003 SSBFs for the Pacific region and for the United States.¹⁷⁴ National SSBF data for 1998 reveal that Black American- and Hispanic American-owned firms had loan denial rates considerably above that of non-Hispanic white male-owned firms. In 2003, the loan denial rate for Black American-owned firms (51%) in the United States remained substantially higher than for non-Hispanic white male-owned firms.

As shown in Figure F-7, about 34 percent of minority- and women-owned firms in the Pacific region reported being denied loans in 1998, a larger proportion than the 21 percent of non-Hispanic white male-owned firms that were denied loans. According to 2003 SSBF data, a smaller percentage of minority- and female-owned firms in the Pacific region were denied loans compared to non-Hispanic white male-owned firms, which was inconsistent with national results for that year. (Loan denial statistics on individual minority groups in the Pacific region are not reported in Figure F-7 due to relatively small sample sizes.)

¹⁷³ Robb, Alicia. 2012. "Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms and High-Tech Firms." Small Business Administration.

¹⁷⁴ The denial rates represent the proportion of business owners whose loan applications over the previous three years were always denied, compared to business owners whose loan applications were always approved or sometimes approved and sometimes denied.

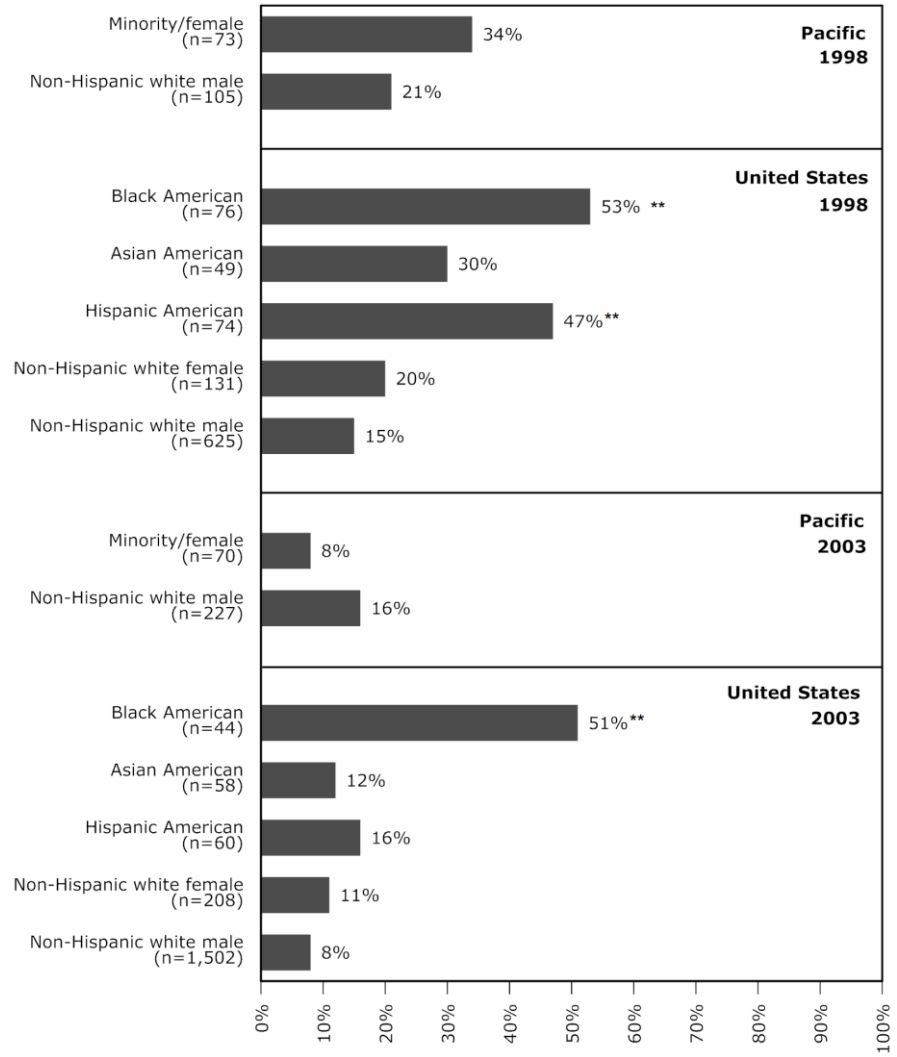
**Figure F-7.
Business loan
denial rates, 1998
and 2003**

Note:

** Denotes that the difference in proportion from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

The Study Team from 1998 and 2003 Survey of Small Business Finances.



Other researchers' regression analyses of loan denial rates. Several studies have investigated whether disparities in loan denial rates for different racial/ethnic and gender groups exist after controlling for other factors that affect loan approvals. Findings from those studies include:

- Commercial banks are less likely to loan to Black American-owned firms than to non-Hispanic white-owned firms after statistically controlling for other factors.¹⁷⁵
Black American, Hispanic American, and Asian American men are more likely to be denied a loan than non-Hispanic white men. However, Black American borrowers are more likely to apply for a loan.¹⁷⁶
- Disparities in loan denial rates between Black American-owned and non-Hispanic white-owned firms tend to decrease with increasing competitiveness of lender markets. A similar phenomenon is observed when considering differences in loan denial rates between male- and female-owned firms.¹⁷⁷
- The probability of loan denial decreases with greater personal wealth. However, accounting for personal wealth does not resolve the large differences in denial rates across Black American-, Hispanic American-, Asian American-, and non-Hispanic white-owned firms. Specifically, information about personal wealth explained some differences between Hispanic- and Asian American-owned firms and non-Hispanic white-owned firms, but explained almost none of the differences between Black American-owned firms and non-Hispanic white-owned firms.¹⁷⁸
- Loan denial rates are higher for Black American-owned firms than for non-Hispanic white-owned firms after accounting for several factors such as creditworthiness and other characteristics. That result is largely insensitive to different model specifications. Consistent evidence on loan denial rates and other indicators of discrimination in credit markets was not found for other minorities or for women.¹⁷⁹
- Women-owned firms are no less likely to apply for or to be approved for loans in comparison to firms owned by men.¹⁸⁰
- Charles River Associates (CRA) incorporated the 2003 SSBF in a study prepared for the Santa Clara Valley Transportation Authority (also located in the Pacific region). Combining data from the 1998 and 2003 SSBFs “to increase precision of estimates,” the CRA study revealed possible disparities in loan denial rates based on race/ethnicity and gender using a probit econometric model and controlling for other factors. CRA’s results indicate that Black American- and

¹⁷⁵ Cavalluzzo, Ken, Linda Cavalluzzo and John Wolken. 2002. “Competition, Small Business Financing and Discrimination: Evidence from a New Survey.” *Journal of Business*. 75: 641-679.

¹⁷⁶ Coleman, Susan. 2002. “Characteristics and Borrowing Behavior of Small, Women-owned Firms: Evidence from the 1998 National Survey of Small Business Finances.” *The Journal of Business and Entrepreneurship*. 151-166.

¹⁷⁷ Cavalluzzo, 2002. “Competition, Small Business Financing and Discrimination: Evidence from a New Survey.”

¹⁷⁸ Cavalluzzo, Ken and John Wolken. 2002. “Small Business Turndowns, Personal Wealth and Discrimination.” *FEDS Working Paper No. 2002-35*.

¹⁷⁹ Blanchflower, David G., Phillip B. Levine and David J. Zimmerman. 2003. “Discrimination in the Small Business Credit Market.” *The Review of Economics and Statistics*. 85:930-943.

¹⁸⁰ Coleman. 2002. “Characteristics and Borrowing Behavior of Small, Women-owned Firms: Evidence from the 1998 National Survey of Small Business Finances.”

Hispanic American-owned firms had higher probabilities of loan denial. They also reported that Asian American-owned firms were more likely to be denied loans.¹⁸¹

The Study Team regression model for the denial rates in the SSBF. The Study Team conducted its own analysis of the SSBF by developing a model to explore the relationships between loan denial and the race/ethnicity and gender of firm owners while controlling for other factors. As discussed above, there is extensive literature on business loan denials that provides the theoretical basis for the regression models. Many studies have used probit econometric models to investigate the effects of various owner, firm and loan characteristics on the likelihood of loan denial. The standard model includes three general categories of variables:

- The owner’s demographic characteristics (including race and gender), credit, and resources (14 variables);
- The firm’s characteristics, credit and financial health (29 variables); and
- The environment in which the firm and lender operate and characteristics of the loan (19 variables).¹⁸²

The Study Team developed two models, one for the 1998 SSBF and one for the 2003 SSBF, using those standard variables. After excluding a small number of observations where the loan outcome was imputed, the 1998 national sample included 931 firms that had applied for a loan during the three years preceding the 1998 SSBF and the Pacific region included 172 such firms. The 2003 national sample included 1,897 firms that had applied for a loan during the three years preceding the 2003 SSBF and the Pacific region included 298 such firms.

Given the relatively small sample size for the Pacific region and the large number of variables in the model, the Study Team included all U.S. firms in the model and estimated any Pacific region effects by including regional control variables — an approach commonly used in other studies that analyze SSBF data.¹⁸³ The regional variables include an indicator variable for firms located in the Pacific region and interaction variables that represent firms owned by minorities or women that are located in the Pacific region.

1998 SSBF regression results. Figure F-8 presents the marginal effects from the 1998 probit model predicting loan denials. The results from the model indicate that a number of race- and gender-neutral factors significantly affect the probability of loan denial. Those factors include:

- Older business owners are more likely to be denied loans;
- Having a four-year college degree or advanced degree lowers the probability of loan denial;

¹⁸¹ CRA International. 2007. “Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization.” *Prepared for Santa Clara Valley Transportation Authority.*

¹⁸² See, for example, Blanchard, Lloyd; Zao, Bo and John Yinger. 2005. “Do Credit Barriers Exist for Minority and Women Entrepreneurs?” *Center for Policy Research, Syracuse University.*

¹⁸³ Blanchflower, David G.; Levine, Phillip B. and David J. Zimmerman. 2003. “Discrimination in the Small-Business Credit Market.” *The Review of Economics and Statistics.* 85(4): 930-943; NERA Economic Consulting. 2008. “Race, Sex, and Business Enterprise: Evidence from the City of Austin.” *Prepared for the City of Austin, Texas;* and CRA International. 2007. “Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. *Prepared for Santa Clara Valley Transportation Authority.*

- Increased equity in the business owner’s home — if he or she is a homeowner — reduces the likelihood of loan denial;
- Business owners who filed for bankruptcy in the past seven years or have had a judgment against them are more likely to be denied a loan;
- Family-owned businesses are more likely to be denied loans;
- Businesses with an existing line of credit, an existing mortgage, or existing vehicle or equipment loans are less likely to be denied a loan; however, firms with outstanding loans from stockholders are more likely to be denied loans;
- Firms that have been delinquent in business transactions or that filed for bankruptcy in the past seven years have a higher probability of being denied a loan;
- Being in the construction industry increases the likelihood of being denied loans;
- Firms in highly concentrated industry segments (as measured by the Herfindahl index) are more likely to be denied loans; and
- Business mortgage applications and vehicle and equipment loan applications are less likely to be denied than other types of business loan applications.

After controlling for race- and gender-neutral influences, firms owned by Black Americans and Hispanic Americans were more likely to have their loans denied than other firms. The indicator variable for the Pacific region and the interaction terms for Pacific region and minority- and women-ownership were not statistically significant. That result indicates that the probability of loan denials for minority- and women-owned firms within the Pacific region are not significantly different from the U.S. as a whole after controlling for other factors.

Figure F-8.
Likelihood of business loan denial (probit regression) in the U.S. in the 1998 SSBF,
Dependent variable: loan denial

Variable	Marginal Effect	Variable	Marginal Effect	Variable	Marginal Effect
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Black American	0.357 **	D&B credit score = moderate risk	0.094	Partnership	0.015
Asian American	0.015	D&B credit score = average risk	0.110	S corporation	-0.022
Hispanic American	0.213 **	D&B credit score = significant risk	0.063	C corporation	-0.030
Female	-0.024	D&B credit score = high risk	0.066	Construction industry	0.098 **
Pacific region	0.012	Total employees	0.000	Manufacturing industry	0.005
African American in Pacific region	-0.064	Percent of business owned by principal	0.000	Transportation, communications and utilities industry	0.074
Asian American in Pacific region	0.041	Family-owned business	0.076 **	Finance, insurance and real estate industries	-0.022
Hispanic American in Pacific region	-0.008	Firm purchased	-0.039	Engineering industry	0.122
Female in Pacific region	0.093	Firm inherited	0.022	Other industry	0.035
Owner's characteristics, credit and resources		Firm age	-0.002	Herfindahl index = .10 to .18	0.390 **
Age	0.002 *	Firm has checking account	0.030	Herfindahl index = .18 or above	0.369 **
Owner experience	0.001	Firm has savings account	-0.029	Located in MSA	0.006
Less than high school education	0.075	Firm has line of credit	-0.124 **	Sales market local only	0.021
Some college	-0.017	Existing capital leases	-0.008	Loan amount	0.000
Four-year degree	-0.061 **	Existing mortgage for business	-0.045 *	Capital lease application	-0.024
Advanced degree	-0.043	Existing vehicle loans	-0.067 **	Business mortgage application	-0.066 **
Log of Home Equity	-0.010 **	Existing equipment loans	-0.056 **	Vehicle loan application	-0.093 **
Bankruptcy in past 7 years	0.315 **	Existing loans from stockholders	0.111 **	Equipment loan application	-0.072 **
Judgement against in past 3 years	0.228 **	Other existing loans	-0.010	Loan for other purposes	-0.036
Log of net worth excluding home	0.001	Firm used trade credit in past year	-0.038		
Owner has negative net worth	-0.025	Log of total sales in prior year	0.000		
		Negative sales in prior year	0.073		
		Log of cost of doing business in prior year	0.002		
		Log of total assets	0.005		
		Negative total assets	-0.045		
		Log of total equity	0.015		
		Negative total equity	0.241		
		Firm bankruptcy in past 7 years	0.228 *		
		Firm delinquency in business transactions	0.258 **		

Note: * Statistically significant at 90% confidence level.
 ** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

"Native American or other minority" and "Mining industry" perfectly predicted loan outcome and dropped out of the regression.

Source: The Study Team analysis of 1998 SSBF data.

The Study Team simulated loan approval rates for those minority groups with statistically significant disparities (i.e., Black American- and Hispanic American-owned businesses) by comparing observed approval rates with simulated rates.¹⁸⁴ “Loan approval” means that a business owner always or at least sometimes had his or her business loan applications approved over the previous three years. “Rates” of loan approval mean the percentage of firms receiving loan approvals always or at least sometimes during that time period.

The probit modeling approach allowed for simulations of loan approval rates for those groups as if they had the same probability of loan approval as similarly situated non-Hispanic white male-owned firms. To conduct those simulations, the Study Team took the following steps:

1. The Study Team performed a probit regression analysis predicting loan approval using only non-Hispanic white male-owned firms in the dataset.¹⁸⁵
2. The Study Team then used the coefficients from that model and the mean characteristics of Black American- and Hispanic American-owned firms (including the effects of a business being in the Pacific region) to estimate the probability of loan approval of such groups.

The results of those simulations yielded estimates of loan approval rates for non-Hispanic white-owned firms who shared the same characteristics of Black American- and Hispanic American-owned firms. Higher simulated rates indicate that, in reality, Black American- and Hispanic American-owned firms are less likely to be approved for loans than similarly-situated non-Hispanic white male-owned firms. Figure F-9 shows these simulated loan approval rates (“benchmark”) in comparison to the actual approval rates observed in the 1998 SSBF. The disparity index was calculated by taking the actual loan approval rate for each group and dividing it by each group’s benchmark, and then multiplying the result by 100. Values less than 100 indicate that, in reality, the group is less likely to be approved for a loan than what would be expected for similarly-situated non-Hispanic white male-owned firms — in other words that race/ethnicity affects the likelihood of those groups being approved for loans.

Figure F-9.
Comparison of actual loan approval rates to simulated loan approval rates, 1998

Group	Loan approval rates		Disparity index (100 = parity)
	Actual	Benchmark	
Black American	46.4%	77.1%	60
Hispanic American	53.7%	75.6%	71

Note: Actual approval rates presented here and denial rates in Figure F-7 do not sum to 100% because some observations were dropped in the probit regression.

“Loan approval” means that a business owner always or at least sometimes had his or her business loan applications approved over the previous three years.

Source: The Study Team analysis of 1998 NSSBF data.

¹⁸⁴ The approval rate is equal to one minus the denial rate.

¹⁸⁵ That version of the model excluded the race/ethnicity and gender indicator variables, because the value of all of those variables would be the same (i.e., 0).

Based on 1998 SSBF data, the actual loan approval rate for Black American-owned firms was 46 percent. Model results showed that Black American-owned firms would have an approval rate of about 77 percent if they were approved for loans at the same rate as similarly-situated non-Hispanic white male-owned firms (disparity index of 60). Similarly, Hispanic American-owned firms would have an approval rate of about 76 percent if they were approved for loans at the same rate as similarly-situated non-Hispanic white male-owned firms, compared with the actual loan approval rate of 54 percent (disparity index of 71).

2003 SSBF regression results. The Study Team also conducted a regression analysis for the 2003 SSBF.¹⁸⁶ As in the 1998 regression analysis, the dependent variable represents whether or not a firm's loan applications over the past three years were always denied. Figure F-10 presents the marginal effects from the 2003 probit model predicting loan denial. In the 2003 model the race- and gender-neutral factors that significantly affected the probability of loan denial include:

- Location in the Pacific region increases the likelihood of loan denial;
- Owner experience increases the likelihood of loan denial;
- Having an advanced degree lowers the probability of loan denial;
- Business owners who filed for bankruptcy in the past seven years are more likely to be denied a loan;
- Businesses with an average or high risk credit score are more likely to be denied loans;
- Inherited businesses and older businesses are less likely to be denied loans;
- Businesses with an existing line of credit, checking account, or savings account are less likely to be denied a loan.
- Firms with existing loans (other than mortgage, vehicle, equipment or stockholder loans) are more likely to be denied loans;
- Higher total sales in the prior year lowers the probability of being denied a loan;
- S or C corporations are more likely to be denied loans;
- Being in the transportation, communications and utilities industry increases the likelihood of being denied loans;
- Firms in metropolitan areas are more likely to be denied loans; and
- Business mortgage applications, vehicle loans and loans for "other" purposes are less likely to be denied.

After controlling for race- and gender-neutral influences, firms owned by Black Americans were more likely to have their loans denied than other firms.

¹⁸⁶ The 2003 SSBF contains multiple implicates (five copies of each record) to better address the issue of with missing values. The values of all reported variables remain constant across the five implicates, but the values of imputed variables may differ. Only 1.8 percent of all values were missing and have been imputed. The Study Team's regression analysis is performed on the first implicate.

Figure F-10.
Likelihood of business loan denial (probit regression) in the U.S. in the 2003 SSBF,
Dependent variable: loan denial

Variable	Marginal Effect	Variable	Marginal Effect	Variable	Marginal Effect
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Black American	0.256 **	D&B credit score = moderate risk	-0.007	Partnership	-0.006
Asian American	-0.017	D&B credit score = average risk	0.036 *	S corporation	0.030 **
Hispanic American	-0.011	D&B credit score = significant risk	0.017	C corporation	0.040 *
Native American or other minority	0.031	D&B credit score = high risk	0.059 **	Construction industry	0.029
Female	0.019	Total employees	0.000	Manufacturing industry	0.013
Pacific region	0.057 **	Percent of business owned by principal	0.000	Transportation, communications and utilities industry	0.177 **
African American in Pacific region	-0.032	Family-owned business	-0.023	Finance, insurance and real estate industries	0.016
Asian American in Pacific region	0.033	Firm purchased	0.002	Engineering industry	-0.003
Hispanic American in Pacific region	0.026	Firm inherited	-0.036 **	Other industry	0.003
Native American or other minority in Pacific region	-0.017	Firm age	-0.001 **	Herfindahl index = .10 to .18	0.000
Female in Pacific region	-0.030 *	Firm has checking account	-0.147 *	Herfindahl index = .18 or above	0.028
Owner's characteristics, credit and resources		Firm has savings account	-0.025 **	Located in MSA	0.023 *
Age	-0.001	Firm has line of credit	-0.085 **	Sales market local only	0.014
Owner experience	0.002 **	Existing capital leases	-0.006	Loan amount	0.000
Some college	-0.010	Existing mortgage for business	0.021	Capital lease application	-0.017
Four-year degree	-0.003	Existing vehicle loans	0.018	Business mortgage application	-0.032 **
Advanced degree	-0.026 *	Existing equipment loans	-0.012	Vehicle loan application	-0.051 **
Log of home equity	0.001	Existing loans from stockholders	0.021	Equipment loan application	-0.019
Bankruptcy in past 7 years	0.098 *	Other existing loans	0.030 *	Loan for other purposes	-0.022 *
Judgement against in past 3 years	0.017	Firm used trade credit in past year	0.000		
Log of net worth excluding home	0.000	Log of total sales in prior year	-0.012 *		
		Log of cost of doing business in prior year	-0.002		
		Log of total assets	0.001		
		Log of total equity	-0.001		
		Negative total equity	0.010		
		Firm bankruptcy in past 7 years	-0.026		
		Firm delinquency in business transactions	0.012		

Note: * Statistically significant at 90% confidence level.

** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

"Less than high school education," "Negative sales in prior year" and "Mining industry" perfectly predicted loan outcome and dropped out of the regression; "Owner has negative net worth" and "Negative total assets" dropped because of collinearity.

Source: The Study Team analysis of 2003 SSBF data.

Figure F-10 also indicates that although there is little or no overall influence of business owner gender on rates of business loan denial, female business owners in the Pacific region appear to have a lower likelihood of loan denial than female business owners nationally.

The Study Team also simulated approval rates from the 2003 SSBF results using the same approach as it used for the 1998 disparity index. Figure F-11 presents actual and simulated (“benchmark”) approval rates for Black American-owned businesses, the sole minority group with statistically significant disparities in loan approval in the 2003 data. Simulated approval rates indicated that Black American-owned firms are approved at 71 percent of the rate observed for similarly-situated non-Hispanic white male-owned firms (i.e., non-Hispanic white male-owned firms with the same demographic, credit and financial health, lender environment and loan characteristics of Black American-owned firms).

Figure F-11.
Comparison of actual loan approval rates to simulated loan approval rates, 2003

Group	Loan approval rates		Disparity index (100 = parity)
	Actual	Benchmark	
Black American	49.1%	69.0%	71

Note: Actual approval rates presented here and denial rates in Figure F-7 do not sum to 100% because some observations were dropped in the probit regression.

“Loan approval” means that a business owner always or at least sometimes had his or her business loan applications approved over the previous three years.

Source: The Study Team analysis of 2003 NSSBF data.

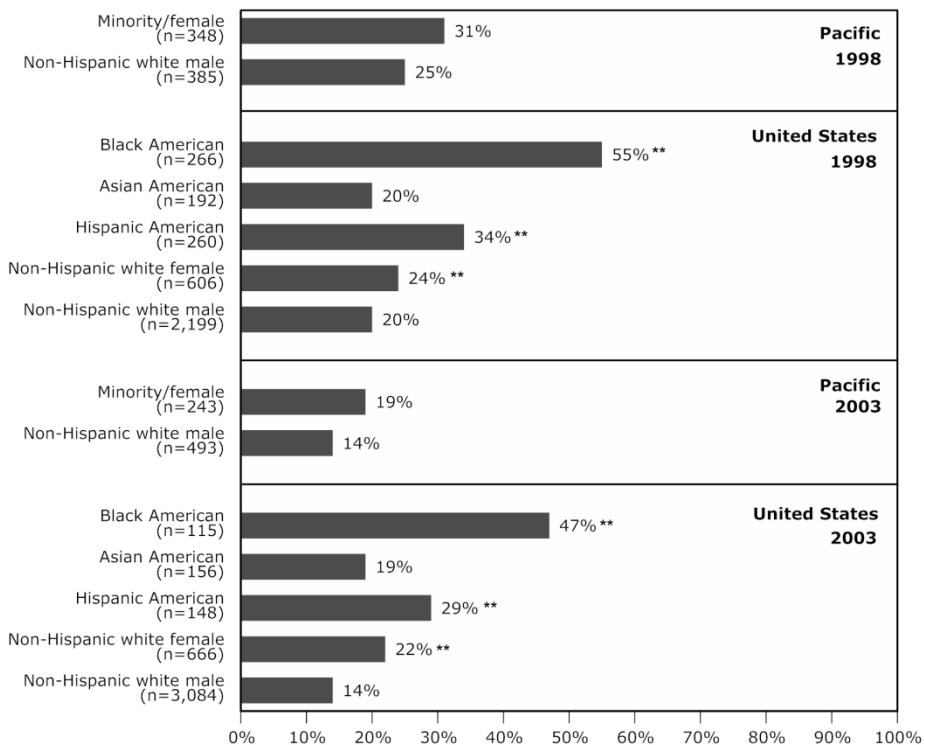
Applying for loans. Fear of loan denial can be a barrier to business credit in the same way that actual loan denial presents a barrier. The SSBF includes a question that gauges whether a business owner did not apply for a loan due to fear of loan denial. Using data from the 1998 and 2003 SSBF, Figure F-12 presents the proportion of firms that reported needing credit but did not apply for loans because of a fear of denial.

In 1998 and 2003, Black American- and Hispanic-owned firms were more likely than non-Hispanic white male-owned firms in the nation to forgo applying for loans due to a fear of denial. Non-Hispanic white women-owned firms were also more likely to forgo applying for loans due to a fear of denial. In 2003 Asian American-owned firms were more likely than non-Hispanic white male-owned firms to not apply for loans due to a fear of loan denial. In the Pacific region in both 1998 and 2003, fear of denial was greater for minority- and women-owned firms than for non-Hispanic white male-owned firms but the difference was not statistically significant.

Figure F-12.
Firms that
needed loans but
did not apply due
to fear of denial,
1998 and 2003

Note:
 ** Denotes that the
 difference in proportions
 from non-Hispanic white
 male-owned firms is
 statistically significant at
 the 95% confidence level.

Source:
 The Study Team from 1998
 and 2003 Survey of Small
 Business Finances.



Other researchers’ regression analyses of fear of denial. Other studies have identified factors that influence the decision to apply for a loan, such as firm size, firm age, owner age, and educational attainment. Accounting for those factors can help in determining whether race, ethnicity or gender of the business owner explain whether the owner did not apply for a loan due to fear of loan denial. Results indicate that:

- Black American and Hispanic American business owners are significantly less likely to apply for loans.¹⁸⁷
- After statistically controlling for educational attainment, there were no differences in loan application rates between non-Hispanic white, Black American, Hispanic American, and Asian American male business owners.¹⁸⁸
- Black American-owned firms were more likely than other firms to report being seriously concerned with credit markets and were less likely to apply for credit in fear of loan denial.¹⁸⁹
- In its study for the Santa Clara Valley Transportation Authority, CRA used an econometric model to investigate firms that did not apply for loans for fear of denial. The model explored whether differences between race/ethnicity and gender groups exist after statistically controlling for other factors. CRA based its analysis on combined data from the 1998 and 2003 SSBFs. Results from CRA’s model indicate that Black American- and Hispanic American-owned

¹⁸⁷ Cavalluzzo, 2002. “Competition, Small Business Financing and Discrimination: Evidence from a New Survey.”

¹⁸⁸ Coleman, Susan. 2004. “Access to Debt Capital for Small Women- and Minority-Owned Firms: Does Educational Attainment Have an Impact?” *Journal of Developmental Entrepreneurship*. 9:127-144.

¹⁸⁹ Blanchflower et al., 2003. Discrimination in the Small Business Credit Market.

businesses are more likely to not apply out of fear of being denied. In addition, results for firms located in the Pacific region did not differ significantly from national results.¹⁹⁰

The Study Team regression model for fear of denial in the SSBF. The Study Team conducted its own econometric analysis of fear of denial by developing a model to explore the relationships between fear of denial and the race/ethnicity and gender of firm owners while controlling for other factors. The model was similar to the probit regression for likelihood of denial except that the fear of denial regression includes firm owners who did not apply for a loan and excludes loan characteristics.

After excluding a small number of observations where fear of denial was imputed, the 1998 national sample included 3,457 firms and the Pacific region included 715 firms. The 2003 national sample included 4,231 firms and the Pacific region included 736 such firms. In both 1998 and 2003 Pacific region effects are modeled using regional control variables in the national model.

1998 SSBF regression results. Figure F-13 presents the marginal effects from the probit model predicting the likelihood that a firm needs credit but will not apply due to fear of denial. The results from the model indicate that a number of race- and gender-neutral factors significantly affect the probability of forgoing application for a loan due to fear of denial. Factors that indicate a statistically significant *increase* in the likelihood of not applying for a loan due to fear of loan denial include:

- Filing for bankruptcy in the past seven years or having had a judgment against them;
- Having an average, significant or high risk credit score;
- Having an existing mortgage, existing vehicle loans, existing loans from stockholders or other existing loans;
- Higher total assets; and
- Having the firm be delinquent in business transactions or filing for bankruptcy in the past seven years.

¹⁹⁰ CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. Prepared for Santa Clara Valley Transportation Authority.

Factors that indicate a statistically significant *decrease* in the likelihood of business owners not applying for a loan due to fear of loan denial include:

- More equity in the business owner’s home — if he or she is a homeowner — and more business owner net worth;
- If the firm was acquired through a purchase;
- Having an older firm;
- Having a savings account or a line of credit; and
- More sales in the prior year (but also negative sales in the prior year).

After controlling for race- and gender-neutral influences, Black American-owned firms were more likely to forgo applying for a loan due to fear of denial. Overall, fear of denial tends to be higher in the Pacific region; however, both Black American- and Asian American-owned firms in the Pacific region were less likely to fear denial than Black American- and Asian American-owned firms nationwide.

Figure F-13.
Likelihood of forgoing a loan application due to fear of denial (probit regression) in the U.S. in the 1998 SSBF,
Dependent variable: needed a loan but did not apply due to fear of denial

Variable	Marginal Effect	Variable	Marginal Effect	Variable	Marginal Effect
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Black American	0.294 **	D&B credit score = moderate risk	0.079	Partnership	-0.008
Asian American	0.049	D&B credit score = average risk	0.103 **	S corporation	0.001
Hispanic American	0.025	D&B credit score = significant risk	0.163 **	C corporation	0.036
Native American	0.069	D&B credit score = high risk	0.209 **	Mining industry	-0.078
Female	0.006	Total employees	-0.001	Construction industry	-0.034
Pacific region	0.074 **	Percent of business owned by principal	0.000	Manufacturing industry	-0.006
African American in Pacific region	-0.110 *	Family-owned business	0.022	Transportation, communications and utilities industry	0.048
Asian American in Pacific region	-0.099 *	Firm purchased	-0.070 **	Finance, insurance and real estate industries	-0.031
Hispanic American in Pacific region	0.034	Firm inherited	0.003	Engineering industry	-0.001
Native American in Pacific region	-0.025	Firm age	-0.003 **	Other industry	-0.034
Female in Pacific region	0.066	Firm has checking account	0.050	Herfindahl index = .10 to .18	0.000
Owner's characteristics, credit and resources		Firm has savings account	-0.056 **	Herfindahl index = .18 or above	0.011
Age	-0.001	Firm has line of credit	-0.062 **	Located in MSA	0.031
Owner experience	0.001	Existing capital leases	0.037	Sales market local only	-0.017
Less than high school education	0.088	Existing mortgage for business	0.105 **		
Some college	-0.003	Existing vehicle loans	0.049 **		
Four-year degree	-0.014	Existing equipment loans	0.034		
Advanced degree	-0.029	Existing loans from stockholders	0.097 **		
Log of home equity	-0.007 **	Other existing loans	0.067 **		
Bankruptcy in past 7 years	0.324 **	Firm used trade credit in past year	0.016		
Judgement against in past 3 years	0.093 **	Log of total sales in prior year	-0.022 **		
Log of net worth excluding home	-0.034 **	Negative sales in prior year	-0.167 **		
Owner has negative net worth	-0.168	Log of cost of doing business in prior year	-0.002		
		Log of total assets	0.020 **		
		Negative total assets	0.115		
		Log of total equity	-0.009		
		Negative total equity	0.010		
		Firm bankruptcy in past 7 years	0.567 **		
		Firm delinquency in business transactions	0.237 **		

Note: * Statistically significant at 90% confidence level.
 ** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

Source: The Study Team analysis of 1998 SSBF data.

2003 SSBF regression results. Figure F-14 presents the marginal effects from the probit model predicting the likelihood that a firm needs credit but will not apply due to fear of denial. The results from the model indicate that a number of race- and gender-neutral factors significantly affect the probability of forgoing application for a loan due to fear of denial. Factors that indicate a statistically significant *increase* in the likelihood of not applying for a loan due to fear of loan denial include:

- Filing for bankruptcy in the past seven years or having had a judgment against them;
- Having a significant or high risk credit score;
- A larger percentage of business owned by the principal owner;
- Having an existing mortgage, existing vehicle or equipment loans, existing loans from stockholders or other existing loans;
- Higher cost of doing business in the prior year;
- Having been delinquent in business transactions or filing for bankruptcy in the past seven years; and
- Location in a metropolitan area.

Factors that indicate a statistically significant *decrease* in the likelihood of not applying for a loan due to fear of loan denial include:

- Being older and having a four-year college degree;
- More equity in the business owner's home — if he or she is a homeowner — and more business owner net worth;
- Having an older firm;
- More sales in the prior year (but also negative sales in the prior year); and
- Having a local (as opposed to regional, national or international) sales market.

After controlling for race- and gender-neutral influences, Black American- and Hispanic American-owned firms were more likely to forgo applying for a loan due to fear of denial (similar to CRA's analysis). In addition, the Study Team's model indicates that women-owned firms were also more likely to need a loan but choose not to apply due to fear of denial. Although not found nationally, in the Pacific region Native American-owned firms were more likely to fear denial than other firms.

Figure F-14.
Likelihood of forgoing a loan application due to fear of denial (probit regression) in the U.S. in the 2003 SSBF,
Dependent variable: needed a loan but did not apply due to fear of denial

Variable	Marginal Effect	Variable	Marginal Effect	Variable	Marginal Effect
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Black American	0.214 **	D&B credit score = moderate risk	-0.011	Partnership	0.004
Asian American	0.049	D&B credit score = average risk	0.040	S corporation	0.014
Hispanic American	0.071 *	D&B credit score = significant risk	0.046 *	C corporation	0.020
Native American or other minority	-0.026	D&B credit score = high risk	0.104 **	Construction industry	0.033
Female	0.046 **	Total employees	0.000	Manufacturing industry	-0.012
Pacific region	0.037	Percent of business owned by principal	0.001 **	Transportation, communications and utilities industry	-0.049
African American in Pacific region	-0.081	Family-owned business	-0.009	Finance, insurance and real estate industries	0.041
Asian American in Pacific region	0.000	Firm purchased	-0.010	Engineering industry	-0.028
Hispanic American in Pacific region	-0.047	Firm inherited	-0.033	Other industry	0.010
Native American or other minority in Pacific region	0.424 **	Firm age	-0.003 **	Herfindahl index = .10 to .18	-0.005
Female in Pacific region	-0.051	Firm has checking account	0.010	Herfindahl index = .18 or above	0.024
Owner's characteristics, credit and resources		Firm has savings account	0.010	Located in MSA	0.047 **
Age	-0.002 **	Firm has line of credit	-0.005	Sales market local only	-0.063 **
Owner experience	0.002	Existing capital leases	0.030		
Less than high school education	0.041	Existing mortgage for business	0.050 **		
Some college	0.002	Existing vehicle loans	0.031 *		
Four-year degree	-0.036 *	Existing equipment loans	0.043 *		
Advanced degree	-0.021	Existing loans from stockholders	0.074 **		
Log of home equity	-0.004 **	Other existing loans	0.106 **		
Bankruptcy in past 7 years	0.227 **	Firm used trade credit in past year	0.018		
Judgement against in past 3 years	0.256 **	Log of total sales in prior year	-0.022 **		
Log of net worth excluding home	-0.025 **	Negative sales in prior year	-0.092 *		
		Log of cost of doing business in prior year	0.012 *		
		Log of total assets	0.005		
		Log of total equity	-0.008		
		Negative total equity	-0.033		
		Firm bankruptcy in past 7 years	0.210 **		
		Firm delinquency in business transactions	0.142 **		

Note: * Statistically significant at 90% confidence level.
 ** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

"Mining industry" perfectly predicted loan outcome and dropped out of the regression; "Owner has negative net worth" and "Negative total assets" dropped because of collinearity.

Source: The Study Team analysis of 2003 SSBF data.

Loan values. The Study Team also considered average loan values for firms that received loans. Results from the 1998 and 2003 SSBFs for mean loan values issued to different racial/ethnic and gender groups are presented in Figure F-15. Comparisons of loan amounts between non-Hispanic white male-owned firms and minority- and women-owned firms indicated the following:

- In both 1998 and 2003, minority- and women-owned firms in the Pacific region were issued loans worth less on average than loans issued to non-Hispanic white male-owned firms.
- In 2003, national results showed that minority- and women-owned firms were issued loans that were worth on average less than half the loan amount issued to non-Hispanic white male-owned firms. However, national 1998 data suggest that minority- and women-owned firms were issued loans that were worth slightly more on average than loans issued to non-Hispanic white male-owned firms.

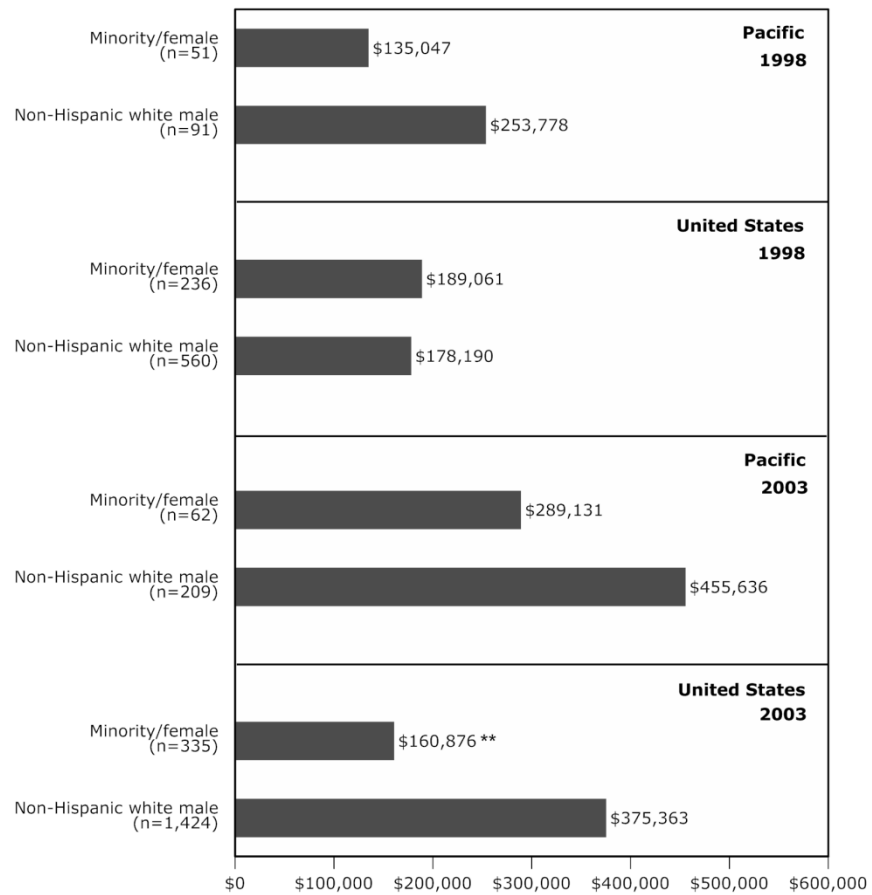
Figure F-15.
Mean value of approved business loans, 1998 and 2003

Note:

** Denotes that the difference in means from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

The Study Team from 1998 and 2003 Survey of Small Business Finances.



Previous national studies have found that Black American-owned firms are issued loans that are worth less than loans issued to non-Hispanic white-owned firms with similar characteristics. Examinations of construction companies in the United States have also revealed that Black American-owned firms are issued loans that are worth less than loans issued to firms with otherwise identical characteristics.¹⁹¹

The Study Team conducted its own econometric analysis to explore the relationships between loan amount and the race/ethnicity and gender of firm owners while controlling for other factors. That regression model did not indicate statistically different loan amounts approved for minorities or women than loan amounts for non-Hispanic whites or men.

Interest rates. Based on 1998 and 2003 SSBF data, Figure F-16 presents the average interest rates on commercial loans by the race/ethnicity of firm owners. In 1998, on average, minority- and women-owned firms in the Pacific region were issued loans with similar interest rates to loans issued to non-Hispanic white male-owned firms. However, in 2003, the average interest rate on loans issued to minority- and women-owned firms appeared to be higher (1.6 percentage points higher) than the mean interest rate of loans for non-Hispanic white male-owned firms.

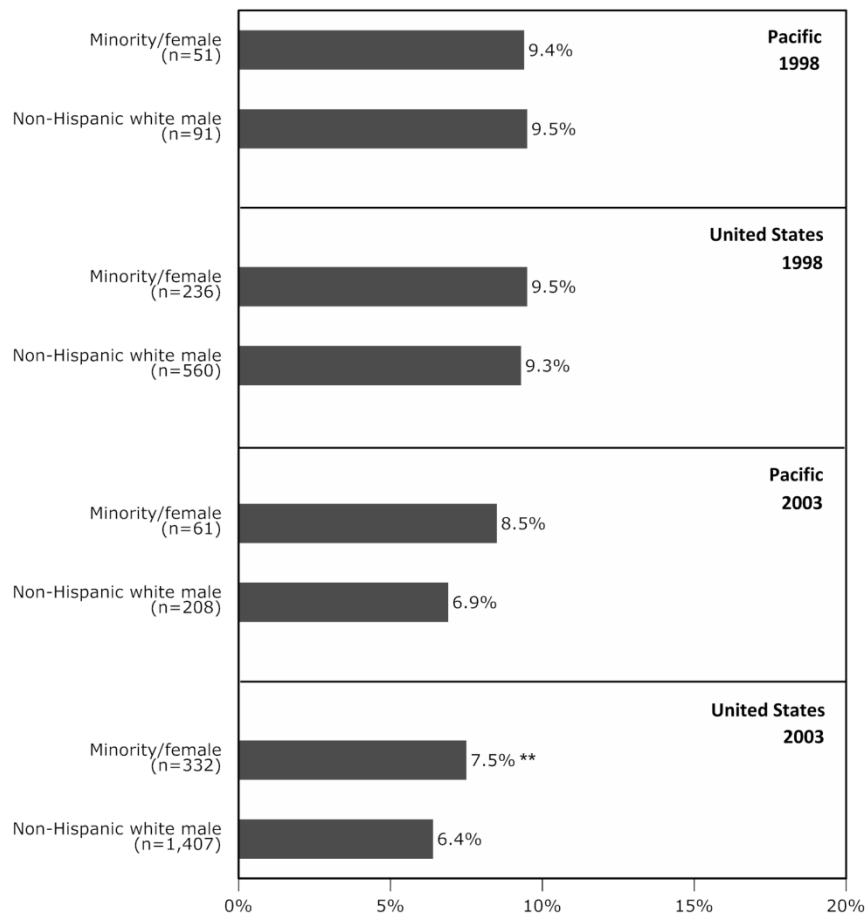
Figure F-16.
Mean interest rate
for business loans,
1998 and 2003

Note:

** Denotes that the difference in means from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

The Study Team from 1998 and 2003 Survey of Small Business Finances.



¹⁹¹ Grown. 1991. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies."

The overall pattern in the Pacific region for loan interest rates was similar to that found in the United States in 1998 and 2003.

Other researchers' regression analyses of interest rates. Previous studies have investigated differences in interest rates across race/ethnicity and gender while statistically controlling for factors such as individual credit history, firm credit history, and Dun and Bradstreet credit scores. Findings from those studies include the following:

- Hispanic American-owned firms had significantly higher interest rates for lines of credit in places with less credit market competition. However, this study found no evidence that Black American- or female-owned firms received higher rates.¹⁹²
- Among a sample of firms with no past credit problems, Black American-owned firms had significantly higher interest rates on approved loans than other groups.¹⁹³
- In its study for the Santa Clara Valley Transportation Authority, CRA also investigated differences in interest rates by race/ethnicity and gender using a linear econometric model that accounted for other factors that may impact interest rates. The CRA study indicated that, on a national level, Black American- and Hispanic American-owned firms pay a higher interest rate for loans than non-Hispanic white-owned firms after statistically controlling for other factors. CRA did not find any additional differences between minority- and non-minority-owned firms located in the Pacific region.¹⁹⁴

The Study Team regression model for interest rates in the SSBF. The 2003 SSBF data for the Pacific region indicate higher interest rates, on average, for minority- and women-owned firms compared with non-Hispanic white male-owned firms. The Study Team conducted a regression analysis of interest rates in both the 1998 and the 2003 SSBF in order to explore the relationships between interest rates and the race/ethnicity and gender of firm owners while controlling for other factors. The Study Team developed a linear regression model using the same control variables as the likelihood of denial model along with additional characteristics of the loan received, such as whether or not the loan was guaranteed, if collateral was required, the length of the loan and whether the interest rate was fixed or variable.

After excluding a small number of observations where the interest rate was imputed, the 1998 national sample included 719 firms that received a loan in the past three years and the Pacific region included 125 such firms. The 2003 national sample included 1,606 firms that received a loan in the past three years and the Pacific region included 247 such firms. Again, Pacific region effects are modeled using regional control variables.

¹⁹² Cavalluzzo. 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

¹⁹³ Blanchflower. 2003. "Discrimination in the Small Business Credit Market."

¹⁹⁴ CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. Prepared for Santa Clara Valley Transportation Authority."

1998 SSBF regression results. Figure F-17 presents the coefficients from the 1998 linear model. The results from the regression model indicate that a number of race- and gender-neutral factors significantly affect the interest rate received, including:

- Business owners with less than a high school education tend to receive higher interest rates;
- Firms acquired through purchase tend to receive lower interest rates;
- Firms with existing loans (other than vehicle or equipment loans or loans from stockholders) tend to receive higher interest rates;
- More sales in the prior year (but also negative sales in the prior year) are associated with lower interest rates;
- An increase in a firm's total equity decreases interest rates as does having negative equity;
- Capital leases tend to have higher interest rates; and
- A collateral requirement lowers interest rates.

After controlling for race- and gender-neutral influences, the regression analysis using 1998 SBBF data does not indicate that minority- or female-owned firms received loans with significantly different interest rates than non-Hispanic white-owned firms.

Figure F-17.
Interest rate (linear regression) in the U.S. in the 1998 SSBF,
Dependent variable: interest rate on most recent approved loan

Variable	Coefficient	Variable	Coefficient	Variable	Coefficient
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Constant	14.625 **	D&B credit score = moderate risk	-0.270	Partnership	0.060
Black American	1.464	D&B credit score = average risk	-0.161	S corporation	0.246
Asian American	1.258	D&B credit score = significant risk	-0.145	C corporation	0.225
Hispanic American	-0.303	D&B credit score = high risk	0.502	Mining industry	-0.079
Native American	-0.609	Total employees	0.002	Construction industry	-0.064
Female	-0.304	Percent of business owned by principal	0.005	Manufacturing industry	-0.020
Pacific region	-0.093	Family-owned business	0.305	Transportation, communications and utilities industry	0.131
African American in Pacific region	-2.668	Firm purchased	-0.404 *	Finance, insurance and real estate industries	-0.528
Asian American in Pacific region	-2.001	Firm inherited	-0.052	Engineering industry	-0.134
Hispanic American in Pacific region	0.141	Firm age	-0.001	Other industry	-0.423
Female in Pacific region	0.515	Firm has checking account	0.080	Herfindahl index = .10 to .18	-0.099
		Firm has savings account	0.359	Herfindahl index = .18 or above	0.229
		Firm has line of credit	-0.315	Located in MSA	-0.060
		Existing capital leases	0.112	Sales market local only	-0.165
Owner's characteristics, credit and resources		Existing mortgage for business	0.044	Approved Loan amount	0.000
Age	0.001	Existing vehicle loans	-0.138	Capital lease application	1.267 **
Owner experience	-0.014	Existing equipment loans	-0.080	Business mortgage application	-0.272
Less than high school education	1.192 **	Existing loans from stockholders	0.234	Vehicle loan application	-0.478
Some college	-0.182	Other existing loans	0.601 **	Equipment loan application	-0.068
Four-year degree	0.154	Firm used trade credit in past year	-0.200	Loan for other purposes	-0.452
Advanced degree	0.059	Log of total sales in prior year	-0.206 *	Loan guaranteed	0.071
Log of home equity	-0.049	Negative sales in prior year	-3.222 **	Collateral required	-0.388 *
Bankruptcy in past 7 years	0.985	Log of cost of doing business in prior year	0.019	Length of loan (months)	-0.002
Judgement against in past 3 years	0.330	Log of total assets	0.027	Fixed rate	0.037
Log of net worth excluding home	-0.049	Negative total assets	1.990		
Owner has negative net worth	0.058	Log of total equity	-0.173 **		
		Negative total equity	-2.236 **		
		Firm bankruptcy in past 7 years	-0.597		
		Firm delinquency in business transactions	0.430		

Note: * Statistically significant at 90% confidence level.
 ** Statistically significant at 95% confidence level.

Source: The Study Team analysis of 1998 SSBF data.

2003 SSBF regression results. Figure F-18 presents the coefficients from the linear model. The results from the regression model indicate that a number of race- and gender-neutral factors significantly affect the interest rate received, including:

- Firms in the Pacific region tend to receive loans with higher interest rates;
- Business owners with an advanced degree tend to receive lower interest rates;
- Increased equity in the business owner's home — if he or she is a homeowner — reduces the interest rate;
- High risk credit scores increase interest rates by approximately 1 percentage point;
- An increase in a firm's total equity increases interest rates as does having negative equity;
- Being in the construction industry lowers interest rates but being in the transportation, communications and utilities industry increases interest rates;
- Capital leases tend to have higher interest rates and vehicle loans tend to have lower interest rates;
- A collateral requirement lowers interest rates;
- Longer loans tend to have lower interest rates; and
- Fixed rate loans have higher interest rates than variable rate loans.

After controlling for race- and gender-neutral influences, the regression analysis indicates that Hispanic American-owned firms received loans with interest rates higher than non-Hispanic white-owned firms (about 1 percentage point higher). Black American-owned firms in the Pacific region received higher interest rates than other firms. It appears that Black American-owned firms paid interest rates several percentage points higher than other firms.

Figure F-18.
Interest rate (linear regression) in the U.S. in the 2003 SSBF,
Dependent variable: interest rate on most recent approved loan

Variable	Coefficient	Variable	Coefficient	Variable	Coefficient
Race/ethnicity and gender		Firm's characteristics, credit and financial health		Firm and lender environment and loan characteristics	
Constant	11.993 **	D&B credit score = moderate risk	0.241	Partnership	-0.510
Black American	1.787	D&B credit score = average risk	0.192	S corporation	-0.142
Asian American	0.119	D&B credit score = significant risk	0.279	C corporation	-0.113
Hispanic American	1.096 *	D&B credit score = high risk	1.013 **	Mining industry	0.228
Native American or other minority	-0.437	Total employees	-0.002	Construction industry	-0.555 *
Female	-0.212	Percent of business owned by principal	-0.001	Manufacturing industry	-0.235
Pacific region	1.224 **	Family-owned business	-0.516	Transportation, communications and utilities industry	1.367 **
African American in Pacific region	2.906 *	Firm purchased	-0.001	Finance, insurance and real estate industries	-0.036
Asian American in Pacific region	0.235	Firm inherited	0.065	Engineering industry	0.515
Hispanic American in Pacific region	-0.139	Firm age	-0.012	Other industry	0.372
Native American or other minority in Pacific region	-0.972	Firm has checking account	-0.354	Herfindahl index = .10 to .18	0.550
Female in Pacific region	0.403	Firm has savings account	-0.017	Herfindahl index = .18 or above	0.876
Owner's characteristics, credit and resources		Firm has line of credit	-0.028	Located in MSA	0.111
Age	-0.013	Existing capital leases	0.132	Sales market local only	-0.148
Owner experience	0.011	Existing mortgage for business	0.028	Approved Loan amount	0.000
Less than high school education	0.284	Existing vehicle loans	0.344	Capital lease application	1.221 *
Some college	0.239	Existing equipment loans	0.563	Business mortgage application	0.547
Four-year degree	-0.324	Existing loans from stockholders	0.191	Vehicle loan application	-1.062 **
Advanced degree	-0.572 *	Other existing loans	0.380	Equipment loan application	-0.261
Log of home equity	0.006	Firm used trade credit in past year	0.252	Loan for other purposes	-0.369
Bankruptcy in past 7 years	0.241	Log of total sales in prior year	-0.157	Loan guaranteed	-0.312
Judgement against in past 3 years	-0.205	Negative sales in prior year	-2.286	Collateral required	-0.842 **
Log of net worth excluding home	-0.149 **	Log of cost of doing business in prior year	-0.144	Length of loan (months)	-0.004 **
		Log of total assets	-0.142	Fixed rate	1.185 **
		Log of total equity	0.182 *		
		Negative total equity	2.132 *		
		Firm bankruptcy in past 7 years	-0.206		
		Firm delinquency in business transactions	-0.179		

Note: * Statistically significant at 90% confidence level.

** Statistically significant at 95% confidence level.

"Owner has negative net worth" and "Negative total assets" dropped out of the regression because of collinearity.

Source: The Study Team analysis of 2003 SSBF data.

Other factors affecting capital markets. Ethnic banking sectors may also affect the availability of loans to different minority groups. For example, one study found that strength in the ethnic banking sector influences credit accessibility in ethnic communities in Los Angeles. A strong Asian American banking sector helped Asian American communities transition to successful business environments, and a lack of strong banking sectors in Black American communities could hinder development of Black American businesses.¹⁹⁵ A recent study discounts the importance of rotating credit associations for Asian American-owned firms.¹⁹⁶

Results from availability interviews. As part of the availability interviews that the Study Team conducted, the team asked several questions related to potential barriers or difficulties those businesses have faced in the local marketplace. The interviewer introduced those questions with the following statement: “Finally, we’re interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences in California within the past five years as we ask you these questions.”

For each potential barrier, the Study Team examined whether the percentage of businesses that indicated that they had experienced that specific barrier or difficulty differed among minority-owned business enterprises (MBEs), non-Hispanic white women-owned business enterprises (WBEs), and majority-owned businesses (i.e., non-Hispanic white male-owned businesses). The Study Team also examined if affirmative responses differed for young businesses (i.e., businesses that were 10 years old or younger).

Access to lines of credit and loans. In the availability interviews, a number of firms discussed difficulties in obtaining lines of credit or loans. As shown in Figure F-19, of all businesses, 36 percent of MBEs and 32 percent of WBEs reported difficulties obtaining lines of credit or loans. A smaller percentage of majority-owned businesses (15%) reported that they had experienced difficulties with obtaining lines of credit or loans.

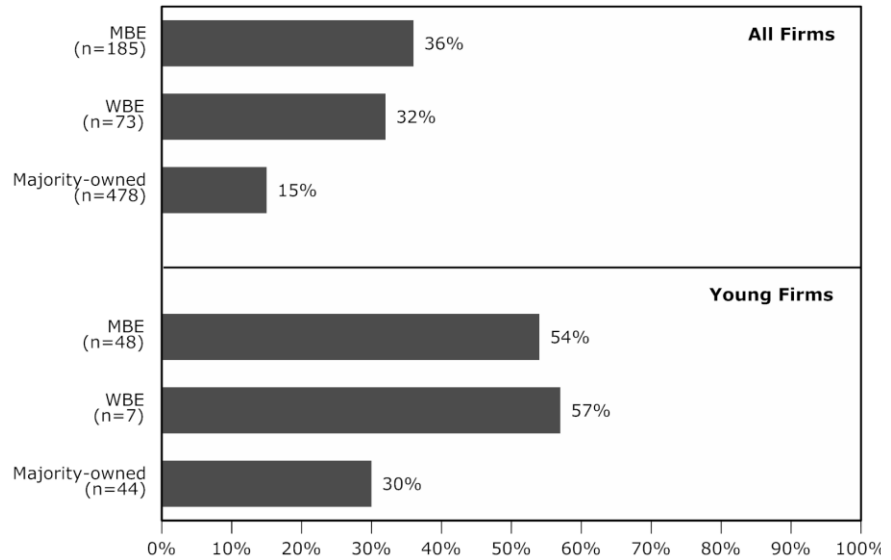
Overall, a larger percentage of young businesses reported that they had experienced difficulties with obtaining lines of credit or loans compared to all businesses. Similar to all businesses, young MBEs (54%) and WBEs (57%) were more likely to report such difficulties than young majority-owned businesses (30%).

¹⁹⁵ Dymski, Gary and Lisa Mohanty. 1999. “Credit and Banking Structure: Asian and African-American Experience in Los Angeles.” *The American Economic Review*. 89:362-366.

¹⁹⁶ Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

Figure F-19.
Has your company experienced any difficulties in obtaining lines of credit or loans?

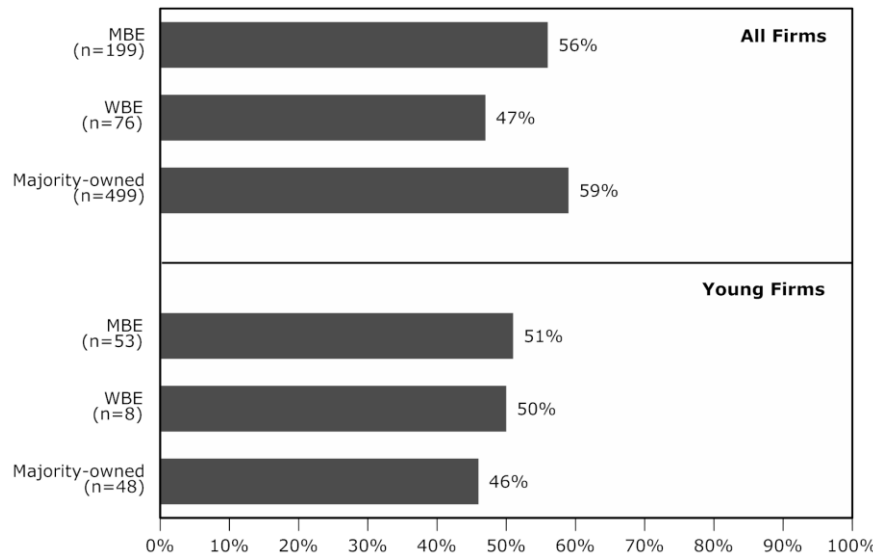
Source:
 The Study Team from 2012-2015
 Availability Interviews.



Receiving timely payment. Need for business credit is, in part, linked to whether businesses are paid for their work in a timely manner. In the availability interviews, firms discussed any difficulties they had receiving payment in a timely manner. Figure F-20 shows that many MBEs, WBEs, and majority-owned businesses reported difficulties with receiving timely payment. Overall, WBEs (47%) were less likely to report difficulties receiving payment in a timely manner than MBEs (56%) and majority-owned businesses (59%). Young businesses were generally less likely to report such difficulties compared with all businesses. Young MBEs (51%) were less likely to report difficulties receiving timely payments than young majority-owned businesses (46%), and young majority-owned businesses were less likely to report such difficulties than young WBEs (50%).

Figure F-20.
Has your company experienced any difficulties receiving payment in a timely manner?

Source:
 The Study Team from 2012-2015
 Availability Interviews.



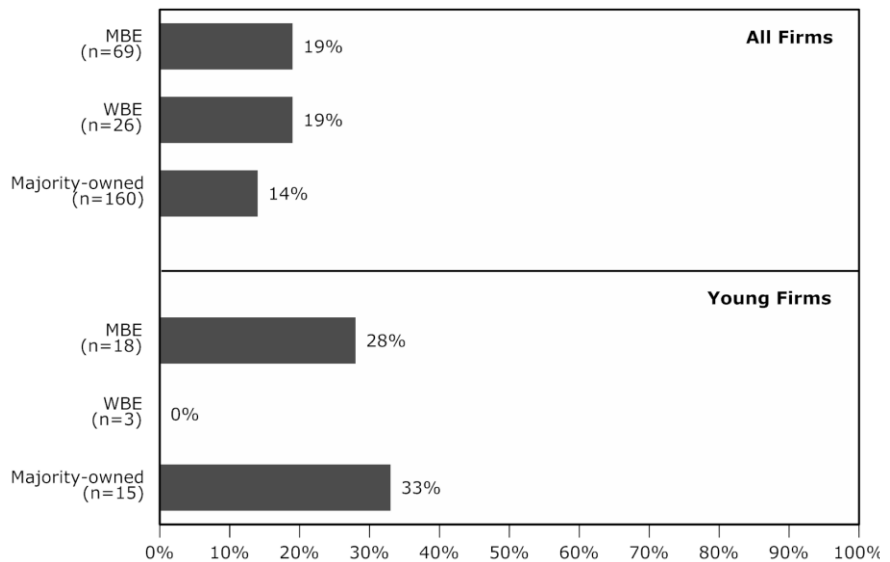
Bonding and Insurance

Access to bonding is closely related to access to capital. Some national studies have identified barriers for MBE/WBEs in attempting to access surety bonds for public construction projects.¹⁹⁷

Bonding. Among businesses that reported that they had obtained or tried to obtain a bond, 19 percent of MBEs and WBEs reported difficulties with obtaining bonds needed for a project. A smaller percentage of majority-owned businesses (14%) reported difficulties with obtaining bonds for a project. Young businesses, with the exception of young WBEs, were more likely to report such difficulties compared with all businesses. Young MBEs (28%) were less likely to report difficulties receiving timely payments than young majority-owned businesses (33%), and young majority-owned businesses were more likely to report such difficulties than young WBEs (0%).

Figure F-21.
Has your company had any difficulties obtaining bonds needed for a project?

Source:
 The Study Team from 2012-2015
 Availability Interviews.



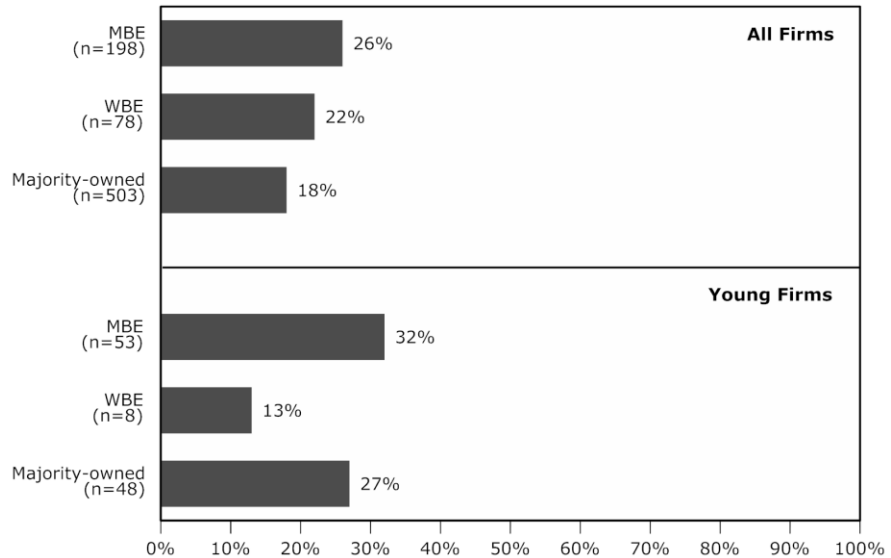
Insurance. High insurance requirements on public sector projects may also represent a barrier for certain construction and professional services firms attempting to do business with government agencies. The Study Team examined whether MBEs and WBEs were more likely than majority-owned businesses to report that insurance requirements represent a barrier to bidding. Figure F-22 presents those results. About 26 percent of MBEs reported such difficulties. Compared to MBEs, a smaller percentage of WBEs (22%) and majority-owned businesses (18%) indicated that insurance requirements present a barrier to bidding on projects.

Young MBEs (32%) were more likely than all other types of firms to indicate that insurance requirements on a project present a barrier to bidding. Compared to young MBEs, a smaller percentage of young WBEs (13%) and young majority-owned businesses (27%) indicated that insurance requirements present a barrier to their business.

¹⁹⁷ For example, Enchautegui, Maria E. et al. 1997. "Do Minority-Owned Businesses Get a Fair Share of Government Contracts?" *The Urban Institute*: 1-117, p. 56.

Figure F-22.
Have any insurance requirements on projects presented a barrier to bidding?

Source:
 The Study Team from 2012-2015
 Availability Interviews.



Summary

There is evidence that minorities and women continue to face certain disadvantages in accessing capital that is necessary to start, operate and expand businesses based on the information presented in this appendix.

Capital is required to start companies, so barriers accessing capital can affect the number of minorities and women who are able to start businesses. In addition, minorities and women start business with less capital (based on national data). A number of studies have demonstrated that low levels of wealth among Black Americans and Hispanics contribute to lower business creation rates relative to their representation in the U.S. population. The amount of startup capital is a strong predictor of business success.¹⁹⁸ Key results include the following:

- Home equity is an important source of funds for business start-up and growth. Fewer Black Americans, Hispanic Americans, and Native Americans in SFMTA’s relevant market areas own homes compared with non-Hispanic whites, and those who do own homes tend to have lower home values.
- Asian-Pacific Americans and Subcontinent Asian Americans are also less likely to own homes in SFMTA’s relevant market areas compared with non-Hispanic whites. However, those who do own homes tend to have higher home values.
- Black Americans, Hispanic Americans, and Native Americans applying for home mortgages in SFMTA’s relevant market areas have been more likely than non-Hispanic whites to have their applications denied.
- Black American, Hispanic American, Native Hawaiian and Pacific Islander, and Native American mortgage borrowers in SFMTA’s relevant market areas have been more likely than non-Hispanic whites to be issued subprime loans.

¹⁹⁸ Robb, Alicia. 2012. “Access to Capital among Young Firms, Minority-owned Firms, Women-owned Firms and High-Tech Firms.” Small Business Administration.

- There is evidence that Black American and Hispanic American business owners were more likely to have been denied business loan applications than similarly situated non-minorities. Results for the Pacific region appear consistent with national results.
- Among business owners who reported needing business loans, there is evidence that Black Americans, Hispanic Americans and women were more likely to forgo applying for loans due to fear of denial than similarly-situated non-minorities and men. Results for the Pacific region appear to be consistent with national results. In the Pacific region in 2003, Native American business owners were also more likely to forgo applying for loans due to fear of denial than other business owners.
- There is evidence for 2003 that Hispanic American business owners receiving business loans paid higher interests rates than similarly-situated non-minorities (with results for the Pacific region consistent with national results). In the Pacific region, it appeared that Black American-owned firms also paid higher interest rates than other firms.

APPENDIX G

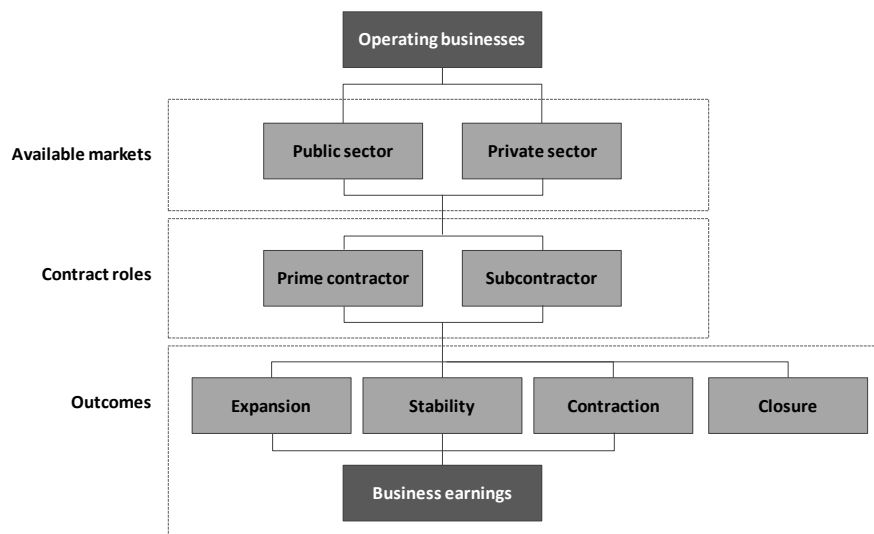
APPENDIX G

Success of Businesses in Transit-related Industries in SFMTA’s Market Area

The Study Team examined the success of minority- and women-owned business enterprises (MBE/WBEs) in the construction, professional services, and other services industries in SFMTA’s relevant market area.^{199, 200, 201} The Study Team assessed whether business outcomes for those firms differ from those of non-Hispanic white male-owned firms (i.e., majority-owned businesses). Figure G-1 provides a framework for the Study Team’s analyses.

Figure G-1.
Business outcomes

Source:
The Study Team.



¹⁹⁹ In this appendix and other appendices that present information about local marketplace conditions, information for “professional services” refers to architectural, engineering and related services and advertising and related industries. “Other services” refers to automotive repair and maintenance; investigation and security service; printing and related support activities; and bus service and urban transit.

²⁰⁰ The Study Team uses the terms “MBEs” and “WBEs” to refer to businesses that are owned and controlled by minorities or women (according to the race/ethnicity and gender definitions listed above), regardless of whether they are certified or meet the revenue and net worth requirements for DBE certification.

²⁰¹ In this appendix and other marketplace appendices, SFMTA’s construction relevant geographic marketplace is defined as San Francisco, Alameda, San Mateo, Santa Clara, and Los Angeles Counties. SFMTA’s professional services and other services relevant geographic marketplaces are defined as San Francisco, Alameda, San Mateo, and Santa Clara Counties.

The Study Team researched outcomes for MBE/WBEs and majority-owned businesses in terms of:

- Participation in public and private sector markets, including contractor roles and sizes of contracts bid on and performed;
- Business closures, expansions, and contractions;
- Business receipts and earnings; and
- Potential barriers to starting or expanding businesses.

Participation in Public and Private Sector Markets

The Study Team drew on information that the Study Team collected as part of the availability analysis to examine business outcomes for MBE/WBEs and majority-owned businesses in the relevant geographic market area, including information about:

- Whether businesses have been successful in the private sector, public sectors, or both;
- Whether businesses have bid on and won contracts in study industries and the sizes of those contracts; and
- Whether businesses have worked as prime contractors, subcontractors, or both.

Public sector versus private sector work. The Study Team examined whether minority- and women-owned construction and professional services businesses were any more or less likely to work in the private sector than the public sector. The Study Team separately examined responses for businesses working in the construction and professional services industries.^{202, 203}

Construction. Figure G-2 presents the distribution of majority-, minority-, and women-owned businesses that reported bidding on government and private sector prime contracts and subcontracts, based on availability interview responses.

- Of the 300 construction businesses that reported bidding on public sector prime contracts in the past five years, 65 percent were majority-owned, 24 percent were MBEs, and 11 percent were WBEs.
- Of the 333 construction businesses that reported bidding on private sector prime contracts in the past five years, 64 percent were majority-owned, 23 percent were MBEs, and 13 percent were WBEs.
- The percentage of MBEs that reported bidding as prime contractors was slightly lower than the percentage of MBEs that reported bidding as subcontractors on both public and private sector work.

²⁰² The Study Team deemed a business to have performed or bid on public sector work if it answered “yes” to either of the following questions in availability surveys: (a) “During the past five years, has your company submitted a bid or a price quote for any part of a contract for a state or local government agency in California?”; or (b) “During the past five years, has your company worked on any part of a contract for a state or local government agency in California?”

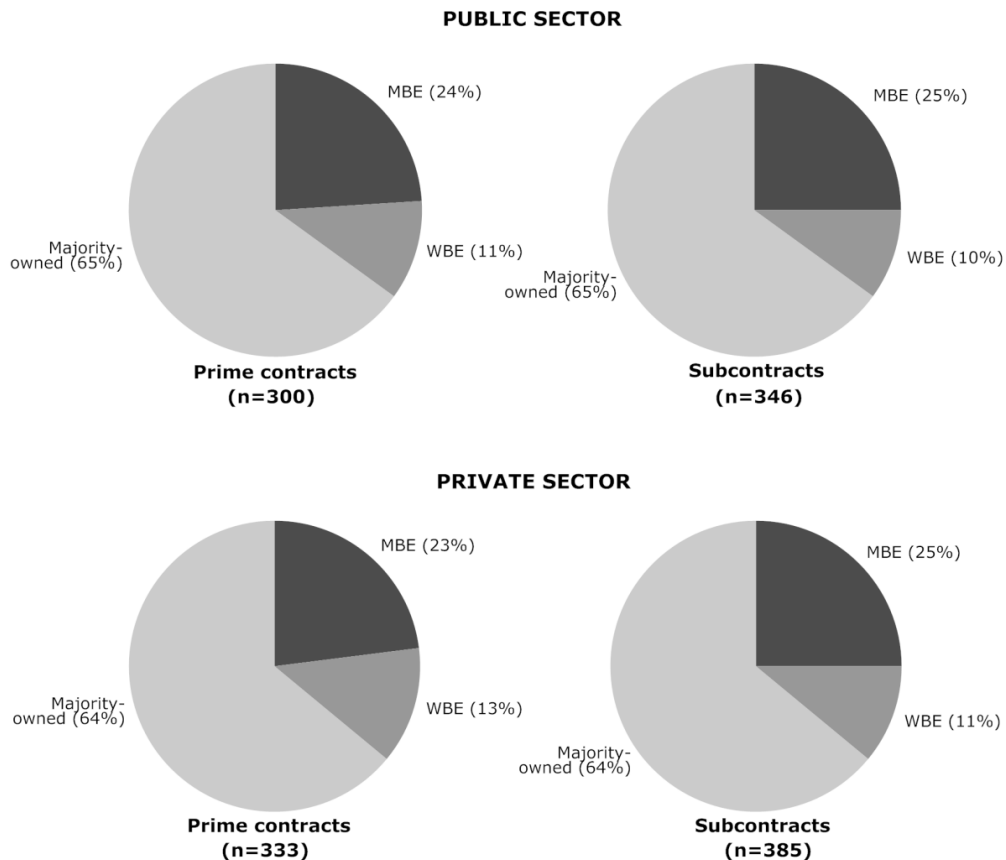
²⁰³ The Study Team deemed a business to have performed or bid on private sector work if it answered “yes” to either of the following questions in availability surveys: (a) “During the past five years, has your company submitted a bid or a price quote for any part of a contract for a private sector organization in California?”; or (b) “During the past five years, has your company worked on any part of a contract for a private sector organization in California?”

- The percentage of WBEs that reported bidding as prime contractors was slightly higher than the percentage of WBEs that reported bidding as subcontractors on both public and private sector work.
- The percentage of MBE/WBEs bidding as prime contractors was about the same for private sector work (36%) and public sector work (35%).

The Study Team also asked construction businesses if they had worked on any public sector contracts (including both prime contracts and subcontracts). When asked to consider the past five years, about 74 percent of MBE construction businesses reported that they had been successful in obtaining public sector work. A larger percentage of WBEs (80%) and majority-owned businesses (87%) said that they had obtained public sector work.

Overall, MBEs and WBEs were more successful obtaining construction work in the private sector than in the public sector. Eighty-three percent of MBEs and eighty-nine percent of WBEs reported that they had been successful in obtaining private sector work in the past five years. Eighty-seven percent of majority-owned businesses reported that they had been successful in obtaining work in both the public and private sectors in the past five years.

Figure G-2.
MBEs, WBEs, and majority-owned construction businesses bidding on public and private sector work in California in the past five years



Note: "WBE" represents white women-owned firms.
 Total may not add to 100 percent due to rounding.

Source: The Study Team from 2012-2015 Availability Surveys.

Professional services. The Study Team also analyzed the representation of MBE/WBEs among all businesses bidding on public and private sector professional services prime contracts and subcontracts. Figure G-3 presents the distribution of majority-, minority-, and women-owned professional services businesses that reported bidding on public and private sector prime contracts and subcontracts.

Figure G-3.
MBEs, WBEs, and majority-owned professional services businesses bidding on public and private sector work in California in the past five years



Note: "WBE" represents white women-owned firms.
 Total may not add to 100 percent due to rounding.

Source: The Study Team from 2012-2015 Availability Surveys.

In general, MBE/WBEs represented a smaller proportion of firms bidding on public sector and private sector prime contracts in the professional services industry than in the construction industry. Professional services MBE/WBEs represented about 30 percent of businesses that reported bidding on public sector prime contracts and about 31 percent of businesses that reported bidding on private sector prime contracts. A similar percentage of MBE/WBEs reported bidding on prime and subcontracts in the public sector.

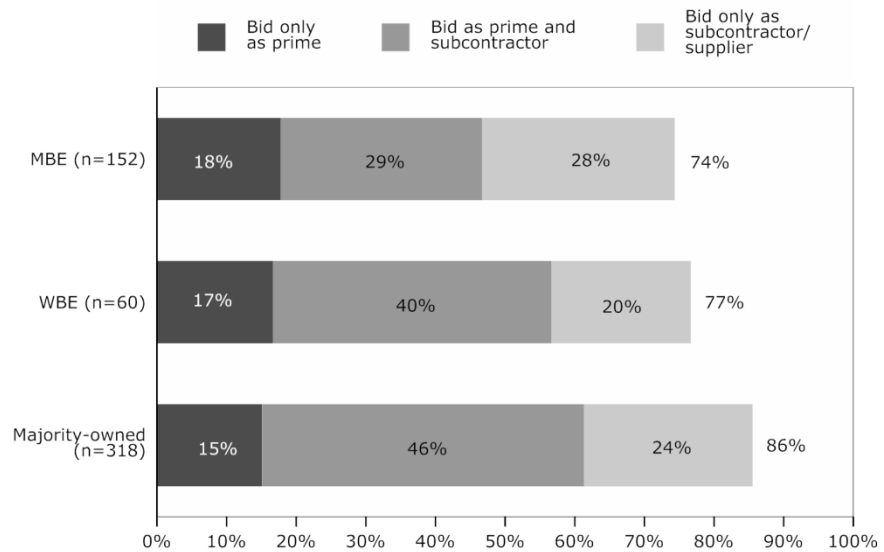
The Study Team also asked professional services businesses if they had received any professional services work in the past five years. Minority-owned businesses were more successful in obtaining public sector work (93%) than private sector work (84%). Conversely, WBEs and majority-owned

businesses were more successful obtaining private sector work (86% and 88%, respectively) than public sector work (82% and 82%, respectively).

Bidding as prime contractors and subcontractors/suppliers. The Study Team further examined the percentage of MBEs, WBEs, and majority-owned businesses that bid on public and private sector work in different roles (i.e., as prime contractors, subcontractors, or both). Those results pertain to bidding within the California contracting industry within the past five years.

Construction. Figure G-4 presents the percentage of majority-, minority-, and women-owned construction businesses that reported bidding on public sector work as a prime contractor, a subcontractor, or as both.

Figure G-4.
Percent of construction businesses that reported submitting a bid for any part of a public sector project in California in the past five years



Note:
 "WBE" represents white women-owned firms.

Source:
 The Study Team from 2012-2015 Availability Surveys.

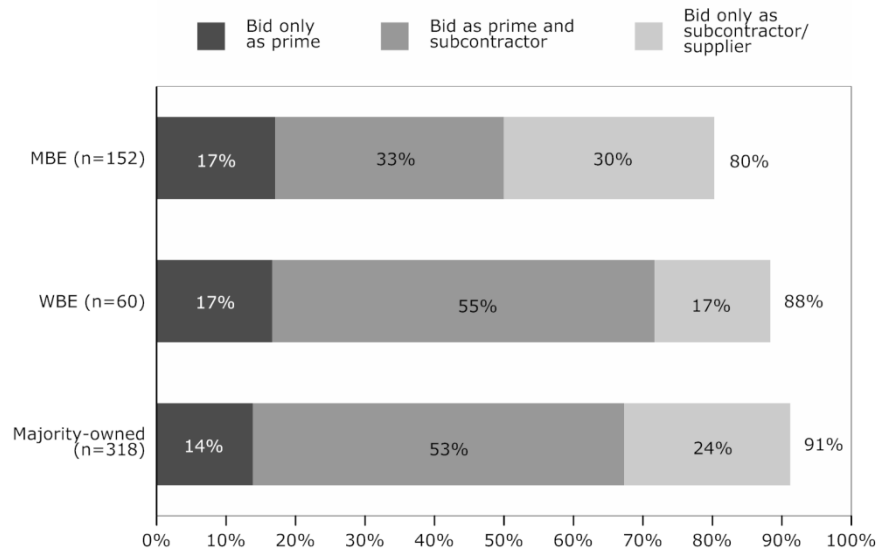
- Of MBE construction businesses that reported being qualified and interested in future work, 74 percent said that they had bid on public sector work as a prime contractor or as a subcontractor in the past five years (including submitting price quotes). About 18 percent bid only as a prime contractor, and, compared to WBE businesses, a larger percentage (28%) bid only as a subcontractor.
- A larger percentage of WBEs than MBEs that reported being qualified and interested in future work (77%) reported bidding on public sector work in the past five years. About 12 percent had bid only as a prime contractor, and about 20 percent bid only as a subcontractor.
- A larger percentage of majority-owned construction businesses that reported being qualified and interested in future work (86%) reported that they had bid on public sector work in the past five years. About 15 percent had bid only as a prime contractor, and 24 percent bid only as a subcontractor.

The Study Team also asked business owners and managers if their businesses had bid on a private sector construction project in the past five years. Figure F-5 presents the percentage of minority-, women-, and majority-owned construction businesses that reported bidding on private sector work as a prime contractor, a subcontractor, or as both.

Figure G-5.
Percent of
construction
businesses that
reported submitting
a bid for any part of
a private sector
project in California
in the past five years

Note:
 "WBE" represents white
 women-owned firms.

Source:
 The Study Team from 2012-
 2015 Availability Surveys.



- Of MBE construction businesses that reported being qualified and interested in future work, 80 percent said that they had bid on private sector work as a prime contractor or as a subcontractor in the past five years. About 17 percent reported that they had bid only as a prime contractor, and about 30 percent reported that they had bid only as a subcontractor.
- Compared to MBEs, a larger percentage of WBEs that reported being qualified and interested in future work (88%) reported bidding on private sector construction work, but a smaller percentage of WBEs (17%) than MBEs and majority-owned businesses reported bidding only as a subcontractor. About 17 percent of WBEs said that they had bid only as a prime contractor on private sector work in the past five years.
- Overall, a larger percentage (91%) of majority-owned construction businesses that reported being qualified and interested in future work said that they had bid on private sector work in the past five years. Compared to MBEs, a slightly smaller percentage of majority-owned businesses (14%) reported that they had bid only as prime contractor. Approximately 24 percent of majority-owned businesses reported that they had bid only as a subcontractor.

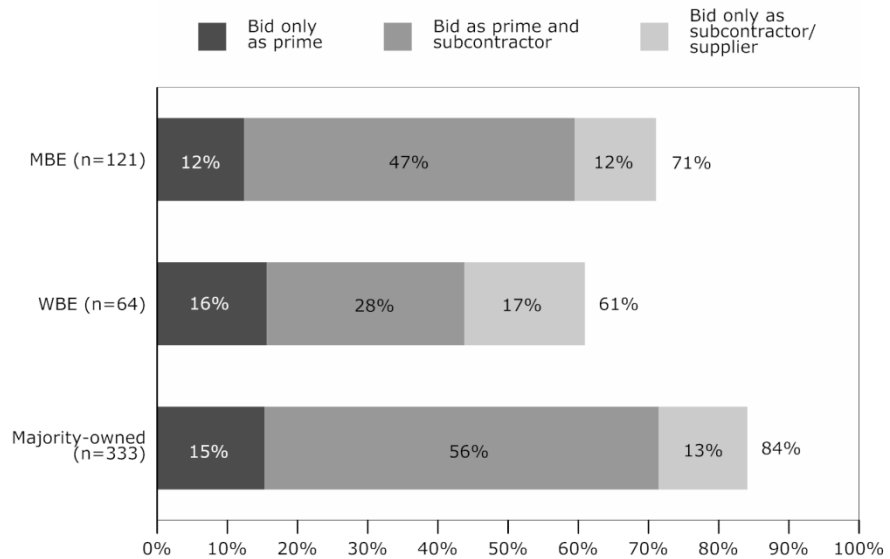
Professional services. Figures G-6 and G-7 examine the percentage of majority-, minority, and women-owned professional services businesses that reported bidding on public or private sector work as a prime contractor, a subcontractor, or as both.

Figure G-6 presents the percentage of majority-, minority-, and women-owned professional services businesses in the relevant geographic market area that reported bidding on public sector work as a prime contractor, a subcontractor, or as both.

Figure G-6.
Percent of
professional
services businesses
that reported
submitting a bid for
any part of a public
sector project in
California in the
past five years

Note:
 "WBE" represents white
 women-owned firms.

Source:
 The Study Team from 2012-
 2015 Availability Surveys.



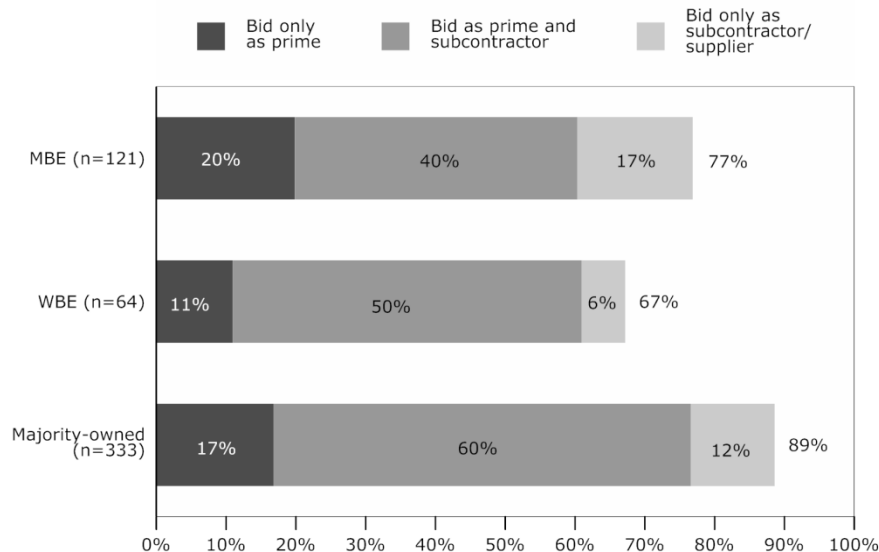
- Of MBE professional services businesses that reported being qualified and interested in future work, 71 percent said that they had bid on public sector work as a prime contractor or as a subcontractor in the past five years (including submitting price quotes). About 12 percent of MBEs reported that they had bid only as a prime contractor and 12 percent reported that they had bid only as a subcontractor.
- A smaller percentage of WBEs that reported being qualified and interested in future work (61%) reported bidding on public sector work in the past five years. About 16 percent of WBEs reported that they had bid only as a prime contractor and 17 percent reported that they bid only as a subcontractor.
- Compared to MBEs and WBEs, a larger percentage of majority-owned professional services businesses that reported being qualified and interested in future work (84%) said that they had bid on public sector work in the past five years. Compared to MBEs and WBEs, a similar percentage (15%) of majority-owned firms reported that they had bid only as a prime contractor. About 56 percent reported bidding as both prime contractors and subcontractors.

Figure G-7 presents the percentage of majority-, minority-, and women-owned professional services businesses in the relevant geographic market area that reported bidding on private sector work as a prime contractor, a subcontractor, or as both.

Figure G-7.
Percent of professional services businesses that reported submitting a bid for any part of a private project in California in the past five years

Note:
 "WBE" represents white women-owned firms.

Source:
 The Study Team from 2012-2015 Availability Surveys.



- Of MBE professional services businesses that reported being qualified and interested in future work, about 77 percent said that they had bid on private sector work as a prime contractor or as a subcontractor in the past five years. About 20 percent said that they had bid only as a prime contractor and 17 percent said that they had bid only as a subcontractor.
- Compared to MBEs, a smaller percentage (67%) of WBEs that reported being qualified and interested in future work said that they had bid on private sector professional services work in the past five years, but a much smaller percentage (6%) said that they had bid only as a subcontractor. Compared to MBEs and majority-owned businesses, a smaller percentage (11%) said that they had bid only as a prime contractor.
- Compared to WBEs, a much larger percentage (89%) of majority-owned professional services businesses that reported being qualified and interested in future work said that they had bid on private sector work in the past five years. About 17 percent said that they had bid only as a prime contractor and 12 percent had bid only as a subcontractor.

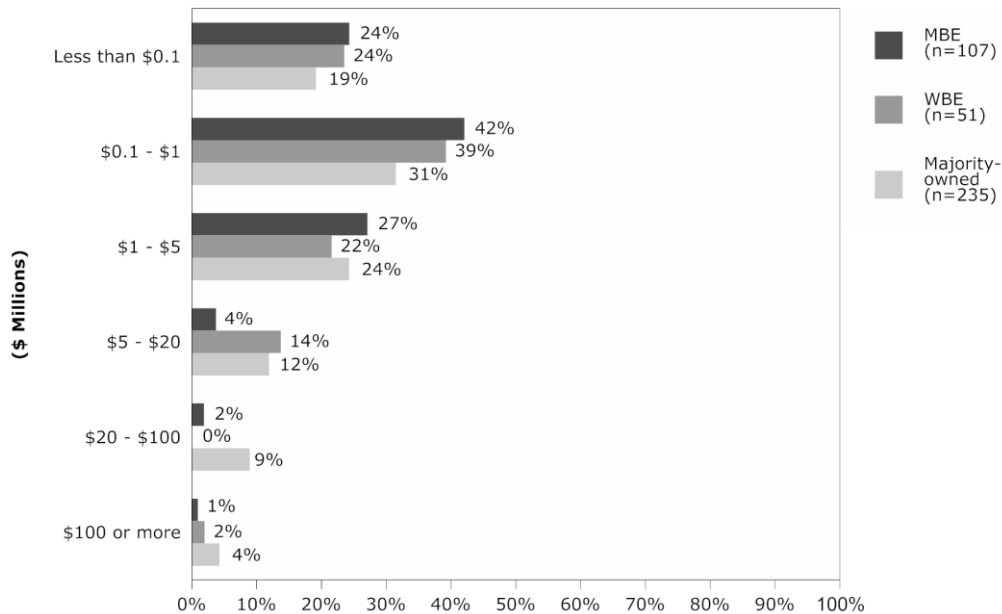
Largest contract in California in the past five years. As part of the availability surveys, the Study Team asked businesses to identify the largest contract they were awarded in California in the past five years.

Construction. Among construction businesses, 66 percent of MBEs reported that the largest contract they received was worth less than \$1 million. A smaller percentage of WBEs (63%) and majority-owned businesses (51%) reported that the largest contract they received was worth less than \$1 million.

About seven percent of MBEs working in construction said that the largest contract they had received in the past five years was worth more than \$5 million. About 16 percent of WBEs reported that the largest contract they had received in the past five years was worth more than \$5 million. A larger percentage of majority-owned construction businesses (25%) said that the largest contract they had received in the past five years was worth more than \$5 million.

Three percent of MBEs and two percent of WBEs said that the largest contract they had received in the past five years was worth more than \$20 million. In contrast, 13 percent of majority-owned construction businesses said the largest contract they received in the past five years was worth more than \$20 million.

Figure G-8.
Largest contract or subcontract that the company received in California in the past five years, construction



Note: "WBE" represents white women-owned firms.
 Total may not add to 100 percent due to rounding.

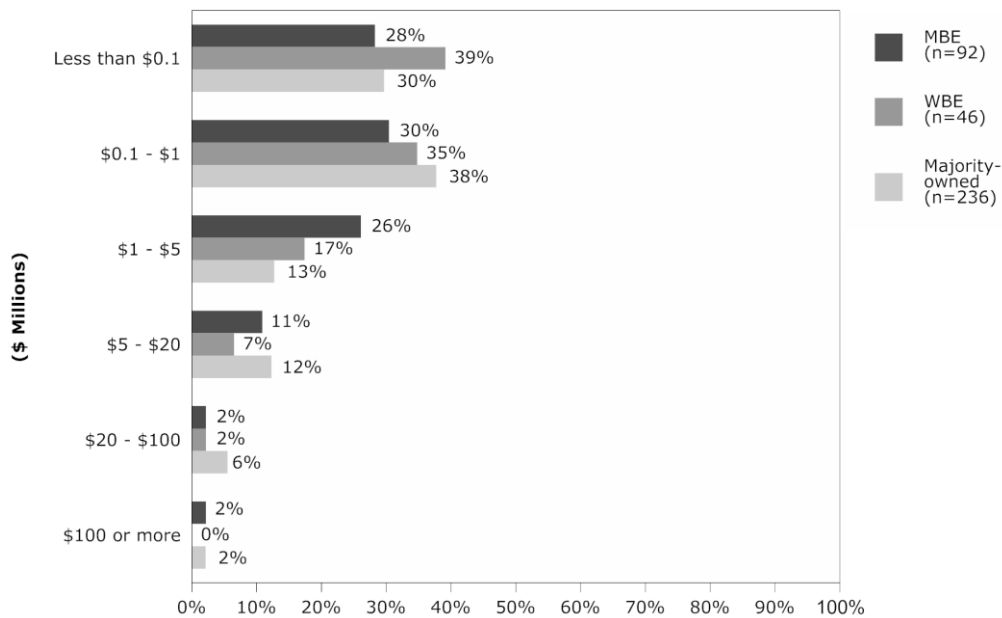
Source: The Study Team from 2012-2015 Availability Surveys.

Professional services. Among professional services businesses, 74 percent of WBEs reported that the largest contract they had been awarded in the past five years was worth \$1 million or less. Compared to WBEs, a smaller percentage of MBEs (59%) and majority-owned businesses (67%) said that the largest contract that they had been awarded in the past five years was worth \$1 million or less.

Only about nine percent of WBEs said that the largest contract they had been awarded in the past five years was worth \$5 million or more. Compared to WBEs, a larger percent of MBEs (15%) and majority-owned businesses (20%) said that the largest contract they had been awarded in the past five years was worth \$5 million or more.

Only about two percent of WBEs said that the largest contract they had been awarded in the past five years was worth \$20 million or more. Compared to WBEs, a larger percent of MBEs (4%) and majority-owned businesses (8%) said that the largest contract they have received in the past five years was worth \$20 million or more.

Figure G-9.
Largest contract or subcontract that the company received in California in the past five years, professional services



Note: "WBE" represents white women-owned firms.
 Total may not add to 100 percent due to rounding.

Source: The Study Team from 2012-2015 Availability Surveys.

Relative capacity. Some legal cases regarding race- and gender-conscious contracting programs have considered the importance of the "relative capacity" of businesses included in an availability analysis.²⁰⁴ One approach to accounting for differing capacities among different types of businesses is to examine relatively small contracts, a technique noted in *Rothe Development Corp. v. U.S. Department of Defense*. In addition to examining small contracts, the Study Team directly measured capacity in its availability analysis.²⁰⁵

Measurement of capacity. The availability analysis produced a database of 1,093 businesses potentially available for work with SFMTA.²⁰⁶ "Relative capacity" for a business is measured as the largest contract or subcontract that the business bid on or performed in California within the five years preceding when the Study Team interviewed it. The Study Team uses relative capacity as one factor in determining whether a business would be available to bid on specific SFMTA prime contracts and subcontracts.

Assessment of possible disparities in capacity of MBE/WBEs and majority-owned businesses. One factor that affects capacity is the specializations, or subindustries, of businesses within the construction and professional services industries. Subindustries such as construction

²⁰⁴ For example, see the decision of the United States Court of Appeals for the Federal Circuit in *Rothe Development Corp. v. U.S. Department of Defense, supra*.

²⁰⁵ See Chapter IV and Chapter VII for details about the availability interview process.

²⁰⁶ 248 of those businesses were not included in the availability marketplace analysis reported in the relative capacity section, because they did not provide responses to questions D2 or D4 on the availability interview.

management, tend to involve relatively large projects. Other subindustries, such as electrical work, typically involve smaller projects. One way of accounting for variation in capacities among businesses in different subindustries is to assess whether a business has a capacity above or below the median level of businesses in the same subindustry.

The Study Team tested whether MBE/WBEs bid on larger or smaller prime contracts or subcontracts compared with other businesses in the same subindustry. Figure G-10 indicates the median bid capacity among businesses in the relevant geographic market area in each of the 30 subindustries that the Study Team examined in the availability analysis. Note that the interview questions regarding the largest project that businesses had bid on or been awarded captured data in dollar ranges rather than in specific dollar amounts.

Figure G-10.
Median relative capacity by subindustry

Subindustry	Median Bid Capacity
Professional Services	
Advertising and marketing	\$100,000 to \$500,000
Archeological expeditions	\$500,000
Construction management	\$100,000 to \$500,000
Engineering	\$500,000 to \$1 million
Environmental research and consulting	\$100,000 to \$500,000
Information technology services	\$500,000 to \$1 million
Landscape architecture	\$100,000 to \$500,000
Other professional services	\$100,000 to \$500,000
Surveying and mapmaking	\$100,000 or less
Testing services	\$100,000
Transportation consulting	\$1 million to \$2 million
Construction	
Asphalt and concrete supply	\$2 million to \$5 million
Building construction	\$1 million to \$2 million
Electrical supplies	\$2 million
Electrical work	\$500,000 to \$1 million
Excavation and drilling	\$500,000 to \$1 million
Fencing, guardrails and signs	\$100,000 to \$500,000
Flagging services	\$100,000
Heavy construction	\$2 million
Heavy construction equipment rental	\$1 million to \$2 million
Landscape services	\$100,000 to \$500,000
Masonry and other stonework	\$1 million to \$2 million
Other construction	\$500,000 to \$1 million
Other construction supplies	\$100,000 to \$500,000
Plumbing and HVAC	\$1 million to \$2 million
Steel building materials	\$100,000 to \$500,000
Structural steel erection	\$500,000 to \$1 million
Trucking	\$500,000 to \$1 million
Water, sewer and utility lines	\$2 million to \$5 million
Wrecking and demolition	\$1 million to \$2 million

Source: The Study Team from 2012-2015 Availability Surveys.

Construction. An initial question is whether MBE/WBEs are as likely as majority-owned businesses to have above-median capacities within their subindustries. Figure G-11 presents those results for construction businesses. Majority-owned firms were more likely than MBEs and WBEs to have above-median capacities.

- About 36 percent of MBE and WBE construction businesses had above-median relative capacities.
- Compared to WBEs and MBEs, larger percentage of majority-owned construction businesses (48%) reported relative capacities that were higher than the median for their subindustries.

Figure G-11.
Proportion of firms with above-median bid capacity by ownership

Source:
 The Study Team from 2012-2015 Availability Surveys.

Firm ownership	Construction	Professional Services	Overall
Minority	36 %	47 %	41 %
Female	36	34	35
Majority-owned	48	41	44

Professional services. Figure G-11 also shows the percentage of professional services businesses that reported relative capacities that exceeded the median for their subindustries.

- About 47 percent of MBE professional services businesses reported that they had relative capacities that were higher than the median for their subindustries.
- Compared to MBEs, a smaller percentage of WBEs (34%) reported having above-median bid capacities.
- Forty-one percent of majority-owned professional services businesses reported having above-median bid capacities.

Further analysis. The Study Team considered whether race- and gender-neutral factors could account for the disparities in relative capacity that the Study Team identified for in construction and professional services. There were several variables from the availability surveys that may be related to relative capacity — for example, age of the firm, and if the firm was owned by a minority or non-Hispanic white woman.

After considering business characteristics from the availability surveys, the Study Team determined that age of business was the race- and gender-neutral neutral factor that might best explain differences in relative capacity within a subindustry while also being external to capacity measures. Theoretically, the longer that companies are in business, the larger the contracts or subcontracts that they might pursue. To test that hypothesis, the Study Team conducted separate logistic regression analyses for the construction and professional services industries to determine whether relative capacity could at least partly be explained by the age of businesses and whether MBE/WBEs differ from majority-owned businesses of similar ages in terms of capacity. The results for the construction industry in SFMTA’s relevant geographic market area are shown in Figure G-12.

Figure G-12.
California construction industry bid capacity model

Note:

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

Source:

The Study Team from 2012-2015 Availability Surveys.

Variable	Coefficient	Z-Statistic
Constant	-1.00	-4.38 **
Age of firm	0.02	4.50 **
Minority	-0.06	-0.26
Female	-0.14	-0.51

The results of the analysis indicated the following:

- Business age was a significant predictor of having above-median capacity. The older a business, the more likely it was to show above-median capacity.
- Minority ownership was negatively related to showing above-median capacity, but that effect was not statistically significant.
- Female ownership was negatively related to having above-median capacity, but that effect was not statistically significant.

Results for the professional services industry in SFMTA’s relevant market area are shown in Figure G-13. The logistic regression model for the industry indicated:

- Business age was a significant predictor of having above-median capacity for professional services businesses. The older a business, the more likely it was to show above-median capacity.
- Minority ownership was positively related to showing above-median capacity, and that effect was statistically significant.
- Female ownership was positively related to showing above-median capacity, but that effect was not statistically significant.

Figure G-13.
California professional services industry bid capacity model

Note:

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

Source:

The Study Team from 2012-2015 Availability Surveys.

Variable	Coefficient	Z-Statistic
Constant	-1.39	-5.64 **
Age of firm	0.03	4.70 **
Minority	0.62	2.39 *
Female	0.07	0.24

Business Closures, Expansions, and Contractions

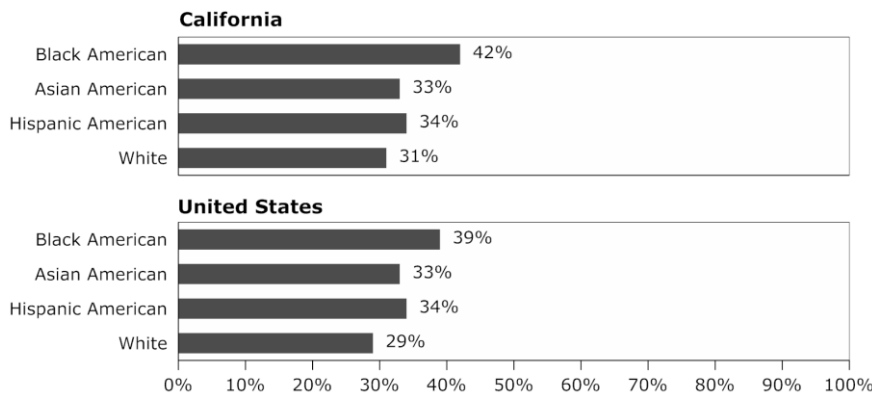
The Study Team used U.S. Small Business Administration (SBA) data to examine business outcomes — including closures, expansions, and contractions — for MBE/WBEs in California and the nation.²⁰⁷ The SBA analyses compare business outcomes for minority-owned businesses (by demographic group) to business outcomes for all firms.

Business closures. High rates of business closures may reflect adverse business conditions for minority business owners.

Overall rates of business closures in California. A 2010 SBA report investigated business dynamics and whether minority-owned companies were more likely to close than other firms. By matching data from business owners who responded to the 2002 U.S. Census Bureau SBO to data from the Census Bureau’s 1989-2006 Business Information Tracking Series, the SBA reported on business closure rates between 2002 and 2006 across different sectors of the economy.²⁰⁸ Figure G-14 presents those data for Black American-, Asian American-, and Hispanic American-owned firms as well as for non-Hispanic white-owned firms.

As shown in Figure G-14, 42 percent of Black American-owned firms that were operating in California in 2002 had closed by the end of 2006, a higher rate than those of other groups, including non-Hispanic white-owned firms (31%). Hispanic American- (34%) and Asian American-owned firms (33%) also had closure rates that were higher than that of non-Hispanic white-owned firms. Differences in closure rates between minority-owned firms and non-Hispanic white-owned firms were similar in California and in the United States during that time period.

Figure G-14.
Rates of business closure, 2002-2006, California and the U.S.



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

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

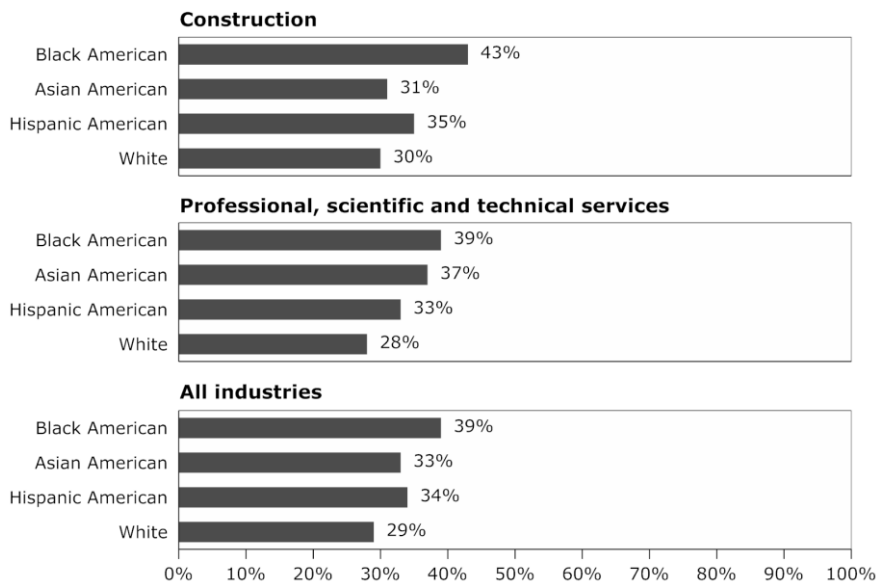
²⁰⁷ State-level data is the smallest geographic scope presented by the SBA. As a result, data are presented for the state of California as a whole.

²⁰⁸ Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Rates of business closures by industry. The SBA report also examined national firm closure rates by race/ethnicity for 21 different industry classifications. Figure G-15 compares national rates of firm closure for the two industry classifications most relevant to the transit-related industries in SFMTA’s market area — construction and professional, scientific, and technical services.²⁰⁹ Closure rates for all industries by race/ethnicity are also shown in Figure G-15 for comparison.

Black American-owned firms that were operating in the United States in 2002 had the highest rate of closure by 2006 among all the racial/ethnic groups — including non-Hispanic white-owned firms — in construction (43%), professional, scientific, and technical services (39%), and all industries (39%). Hispanic American-owned firms and Asian American-owned firms that were operating in 2002 were both also more likely to have closed by 2006 than non-Hispanic white-owned firms in construction, professional, scientific, and technical services, and all industries. The Study Team could not examine whether those differences also existed in California, because the SBA analysis by industry was not available for individual states.

Figure G-15.
Rates of business closure, 2002-2006, construction; professional, scientific, and technical services; and all industries in the U.S.



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

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

Unsuccessful closures. Not all firm closures can be interpreted as “unsuccessful closures.” Firms may close when an owner retires or a more profitable business alternative emerges, both of which represent “successful closures.” The 1992 Characteristics of Business Owners (CBO) Survey is one of the few Census Bureau sources to classify firm closures into successful and unsuccessful subsets.²¹⁰

²⁰⁹ The “other services” industry was not included in this analysis as the SBA report did not contain an industry that corresponded well with the types of work included in the “other services” industry as defined by the study team.

²¹⁰ CBO data from the 1997 and 2002 Economic Censuses do not include statistics on successful and unsuccessful business closures. To date, the 1992 CBO is the only U.S. Census dataset that includes such statistics.

The 1996 CBO survey asked owners of businesses that had closed between 1992 and 1995, “Which item below describes the status of this business at the time the decision was made to cease operations?” Only the responses “successful” and “unsuccessful” were permitted. A firm that reported being unsuccessful at the time of closure was understood to have failed.

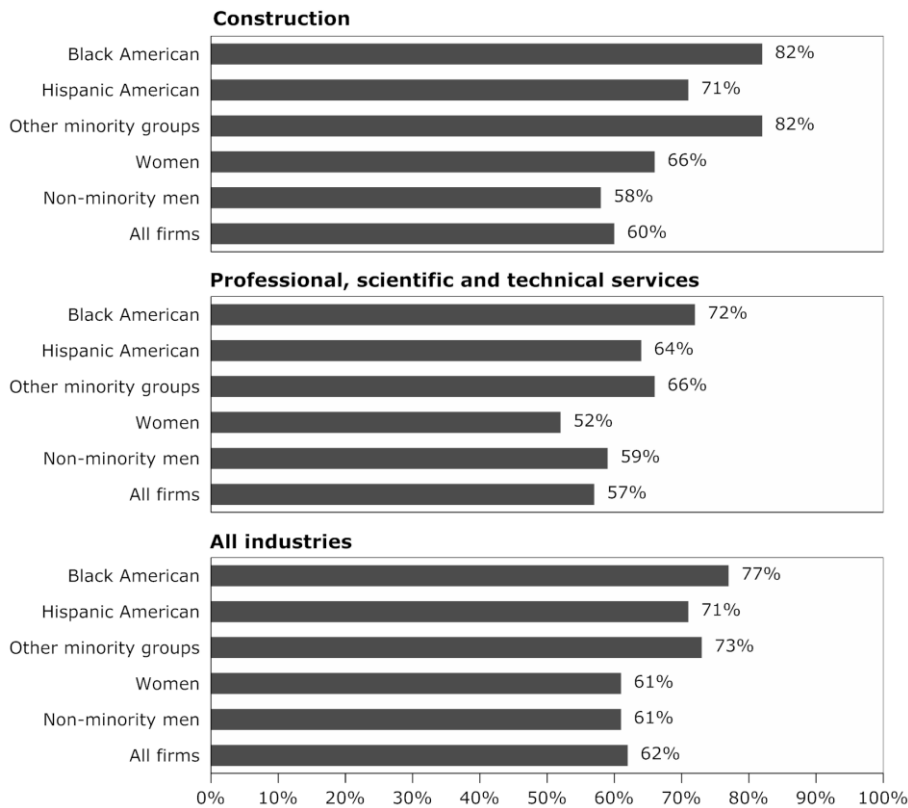
Figure G-16 presents CBO data on the proportion of firms that closed due to failure between 1992 and 1995 in construction, professional, scientific, and technical services, and all industries.^{211, 212}

According to CBO data, Black American-owned firms were the most likely to report being “unsuccessful” at the time at which their businesses closed. About 77 percent of Black American-owned firms in all industries reported an unsuccessful business closure in the 1996 CBO, compared with only 61 percent of non-Hispanic white male-owned firms. Unsuccessful closure rates were also relatively high for Hispanic American-owned firms (71%) and for firms owned by “other minority groups” (73%). The rate of unsuccessful closures for women-owned firms (61%) was similar to that of non-Hispanic white male-owned firms.

²¹¹ All CBO data should be interpreted with caution as firms that did not respond to the survey cannot be assumed to have the same characteristics of ones that did. Holmes, Thomas J. and James Schmitz. 1996. “Nonresponse Bias and Business Turnover Rates: The Case of the Characteristics of Business Owners Survey.” *Journal of Business & Economic Statistics*. 14(2): 231-241. This report does not include CBO data on overall firm closure rates because firms not responding to the survey were found to be much more likely to have closed than ones that did.

²¹² This study includes CBO data on firm success because there is no compelling reason to believe that closed firms responding to the survey would have reported different rates of success/failure than those closed firms that did not respond to the survey. Headd, Brian. U.S. Small Business Administration, Office of Advocacy. 2000. *Business Success: Factors leading to surviving and closing successfully*. Washington D.C.: 12.

Figure G-16.
Unsuccessful closure rates for firms that closed between 1992 and 1995 in the U.S.



Source: U.S. Census Bureau, 1996 Characteristics of Business Owners Survey (CBO).

In the construction industry, minority- and women-owned firms were more likely to report unsuccessful business closures than non-Hispanic white male-owned firms (58%). Those trends were similar in the professional services industry with one exception — women-owned businesses (52%) were less likely to report unsuccessful closures than non-Hispanic white male-owned firms (59%).

Reasons for differences in unsuccessful closure rates. Several researchers have offered explanations for higher rates of unsuccessful closure rates among minority- and women-owned firms compared with non-Hispanic white-owned firms:

- Unsuccessful business failures of minority-owned firms are largely due to barriers in access to capital. Regression analyses have identified initial capitalization as the most significant factor in determining firm viability. Because minority-owned firms secure smaller amounts of debt equity in the form of loans, they are more liable to fail. Difficulty in accessing capital is found to be particularly acute for minority-owned firms in the construction industry.²¹³
- Prior work experience in a family member’s business or similar experiences are found to be strong determinants of business viability. Because minority business owners are much less likely

²¹³ Bates, Timothy and Caren Grown. 1991. “Commercial Lending Practices and the Development of Black-Owned Construction Companies.” Center for Economic Studies, U.S. Census Bureau.

to have such experience, their firms are less likely to survive.²¹⁴ Similar research has been conducted for women-owned businesses and found similar gender gaps in the likelihood of business survival.²¹⁵

- Level of education is found to be a strong determinant of business survival. Educational attainment explains a significant portion of the gap in firm closure rates between Black American-owned and non-minority-owned firms.²¹⁶
- Non-minority business owners have the opportunity to pursue a wider array of business activities, which increases their likelihood of closing successful businesses to pursue more profitable business alternatives. Minority business owners, especially those who do not speak English, have limited employment options and are less likely to close a successful business.²¹⁷
- The possession of greater initial capital and generally higher levels of education among Asian Americans determine the high rate of survival of Asian American-owned firms compared to other minority-owned firms.²¹⁸

In sum, data suggest that closure rates for Black American- and Hispanic American-owned firms in California are higher than for other firms. Based on national results for the construction and professional, scientific, and technical services industries, Black American-owned firms had higher rates of closure in those industries than other firms. National data indicate that Black Americans, Hispanic Americans, and other minorities who owned and closed firms are more likely than non-Hispanic white-owned firms to have done so because the firm was unsuccessful. Several studies have examined why business failure rates are higher for firms owned by certain minority groups at the national level.

Expansions and contractions. Comparing rates of expansion and contraction between minority-owned and non-Hispanic white male-owned businesses is also useful in assessing the relative success of minority-owned businesses. As with closure data, only some of the data on expansions and contractions that were available for the nation are also available at the state level.

Expansions. The 2010 SBA study of minority business dynamics from 2002-2006 examined the number of non-publicly held California businesses that expanded and contracted between 2002 and 2006. Figure G-17 presents the percentage of all businesses, by race/ethnicity of ownership that increased their total employment between 2002 and 2006. Those data are presented for California and for the nation as a whole. According to the SBA study, approximately 28 percent of non-Hispanic white-owned California businesses expanded between 2002 and 2006, compared to 26 percent of Black American-owned businesses, 29 percent of Asian American-owned businesses, and 30

²¹⁴ Robb, A. and Fairlie, R. 2005. "Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital." University of California, Santa Cruz.

²¹⁵ Fairlie, R. and A. Robb. 2009. "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey." University of California, Santa Cruz.

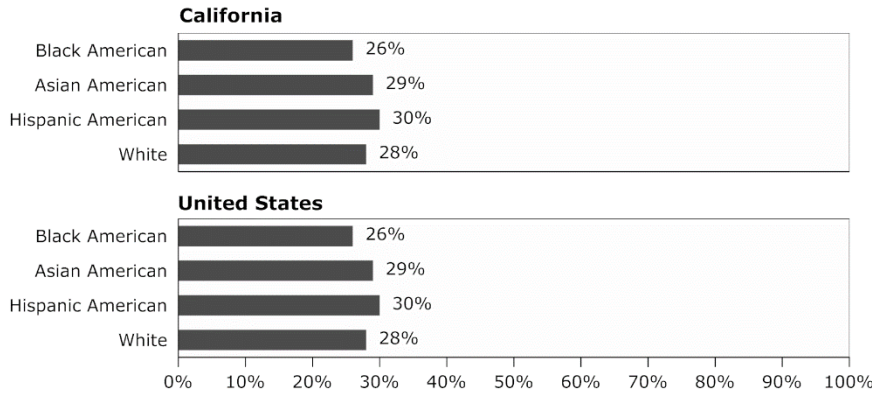
²¹⁶ *Id.* 24.

²¹⁷ Bates, Timothy. 2002. "Analysis of Young Small Firms That Have Closed: Delineating Successful from Unsuccessful Closures." Center for Economic Studies, U.S. Census Bureau.

²¹⁸ Bates, Timothy. 1993. "Determinants of Survival and Profitability Among Asian Immigrant-Owned Small Businesses." Center for Economic Studies, U.S. Census Bureau.

percent of Hispanic American-owned businesses. Expansion results were similar for the nation as a whole.²¹⁹

Figure G-17.
Percentage of firms that expanded, 2002-2006



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

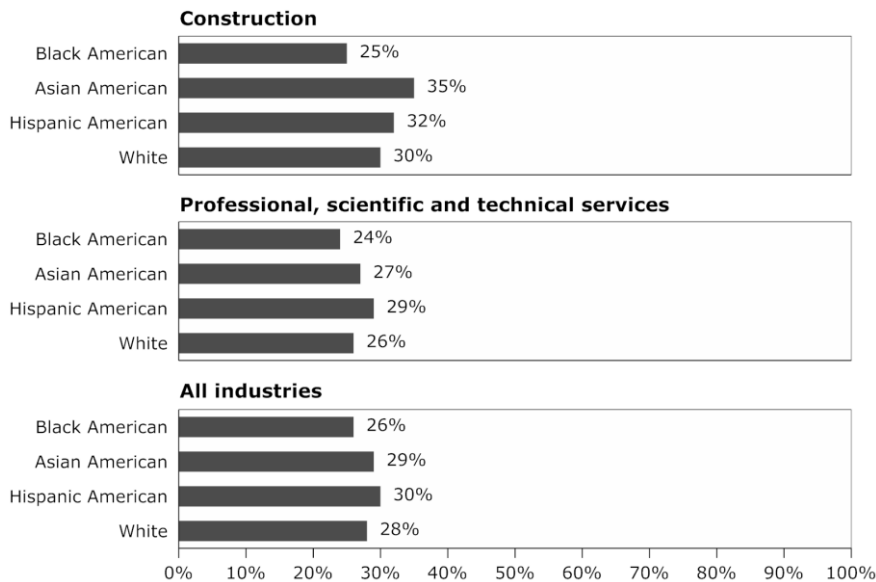
Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Figure G-18 presents the percentage of firms that expanded in construction and professional, scientific, and technical services, and in all industries in the United States. The 2010 SBA study did not report results for firms in individual industries at the city or state level. At the national level, the patterns evident for construction and professional, scientific, and technical services were similar to those observed for all industries:

- Black American-owned construction and professional, scientific, and technical services firms were less likely to have expanded between 2002 and 2006 than non-Hispanic white-owned firms.
- Hispanic American- and Asian American-owned companies in both construction and professional, scientific, and technical services were slightly more likely to have expanded between 2002 and 2006 than non-Hispanic white-owned firms.

²¹⁹ Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Figure G-18.
Percentage of firms expanding, 2002-2006, U.S. construction; professional, scientific, and technical services; and all industries

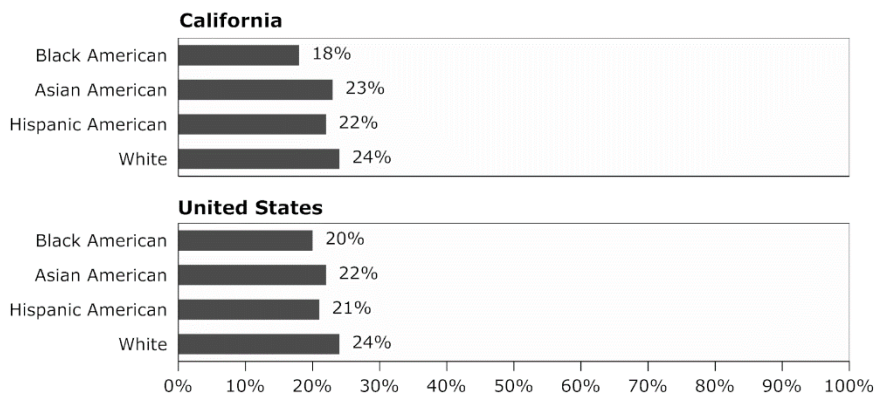


Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

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

Contractions. Figure G-19 shows the percentage of non-publicly held businesses operating in 2002 that reduced their employment (contracted) between 2002 and 2006 in California and in the nation as a whole. At both the state level and the national level, Black American- (18%), Asian American- (23%), and Hispanic American-owned businesses (22%) were slightly less likely to have contracted between 2002 and 2006 than non-Hispanic white-owned businesses.

Figure G-19.
Percentage of firms contracting, 2002-2006



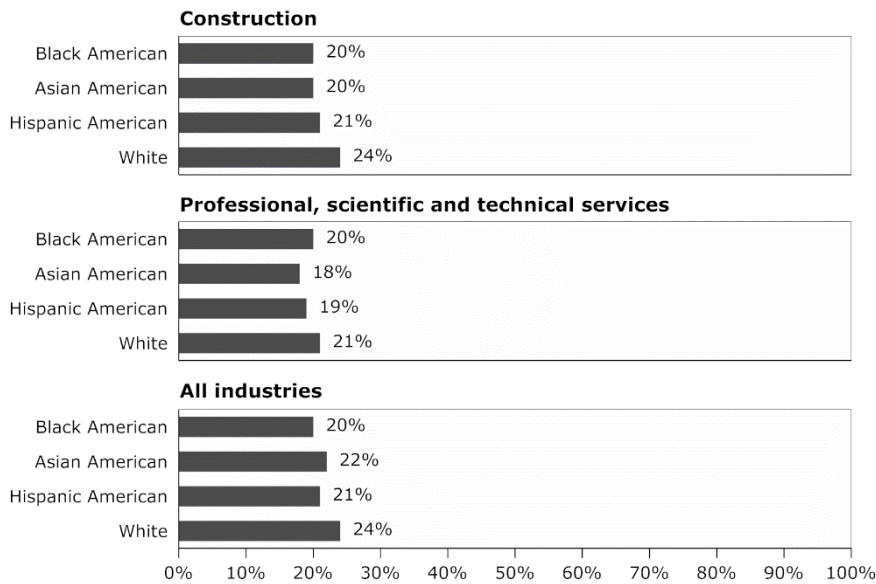
Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

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

The SBA study did not report state-specific results relating to contractions in individual industries. Figure G-20 shows the percentage of businesses that contracted in construction, professional,

scientific, and technical services, and all industries at the national level. Compared to non-Hispanic white-owned construction firms in the United States, a slightly smaller percentage of Black American-, Hispanic American-, and Asian American-owned construction and professional, scientific, and technical services firms contracted between 2002 and 2006.

Figure G-20.
Rates of business contraction, 2002-2006, U.S. construction; professional, scientific and technical services; and all industries



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

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

Summary. The 2010 SBA study of minority business dynamics found that, between 2002 and 2006, 29 percent of non-publicly held U.S. businesses had expanded their employment, 24 percent had contracted their employment, and 30 percent had closed. In California:

- Black American-owned firms were more likely than non-Hispanic white-owned firms and other firms to close. Black American-owned firms were less likely than other firms to expand.
- Hispanic American-owned firms were also more likely than non-Hispanic white-owned firms to close or to contract. However, Hispanic American-owned firms were slightly more likely to expand than non-Hispanic white-owned firms.
- Overall, minority-owned firms were less likely to contract than non-Hispanic white-owned firms.

Business Receipts and Earnings

Annual business receipts and earnings for business owners are also indicators of the success of businesses. The Study Team examined:

- Business receipts data from the 2007 SBO;
- Business earnings data for business owners from the 2000 Census and 2008-2012 ACS;²²⁰ and
- Annual revenue data for construction and professional services firms in the relevant SFMTA market area that the Study Team collected as part of availability surveys.

Business receipts. The Study Team examined receipts for firms in California and the U.S. using data from the 2007 SBO, conducted by the U.S. Census Bureau.²²¹ The Study Team also analyzed receipts for firms in individual industries. The SBO reports business receipts separately for employer firms (i.e., those with paid employees other than the business owner and family members) and for all firms.²²²

Receipts for all firms. Figure G-21 presents 2007 mean annual receipts for employer and non-employer firms, by race/ethnicity and gender. The SBO data for firms across all industries in California and in the nation as a whole indicate that average receipts for minority- and women-owned firms were much lower than the average for all firms, with some groups faring worse than others. Average receipts for Black American-owned firms (\$139,000), Hispanic American-owned firms (\$142,000) and Native Hawaiian-owned firms (\$151,000) were about one-third that of all firms (\$420,000). Average receipts for American Indian and Alaska Native-owned firms (\$123,000) were 29 percent of the average for all firms. Asian American-owned firms had higher average receipts (\$363,000) than other minority groups in 2007, although they were still below the average for all firms. Average receipts for women-owned firms (\$176,000) were about 42 percent of the average for all firms.

As shown in Figure G-21, disparities in business receipts for minority- and women-owned businesses compared to all firms in California are broadly consistent with those seen in the United States as a whole. However, differences in average receipts between Black American-owned firms (\$70,000) and all firms (\$416,000) were larger in the U.S. than California. That pattern was also true for women-owned firms (\$154,000) in the U.S.

A 2007 SBA study identified differences similar to those presented in Figure G-21 when examining firms in all industries across the U.S.²²³

²²⁰ Note that the 2008-2012 ACS data were collected during the economic recession which began in late 2007.

²²¹ Data for the entire state of California are used because the SBO does not provide a geographic region that is similar in scope to the SFMTA construction and professional services market areas.

²²² We use “all firms” to denote SBO data used in this analysis; the data include incorporated and unincorporated firms, but not publicly-traded companies or other firms not classifiable by race/ethnicity and gender.

²²³ Lowrey, Ying. 2007. *Minorities in Business: A Demographic Review of Minority Business Ownership*. Office of Economic Research, Office of Advocacy, U.S. Small Business Administration.

Figure G-21.
Mean annual receipts
(thousands) for all
firms, by race/ethnicity
and gender of owners,
2007

Note:

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

Source:

2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.

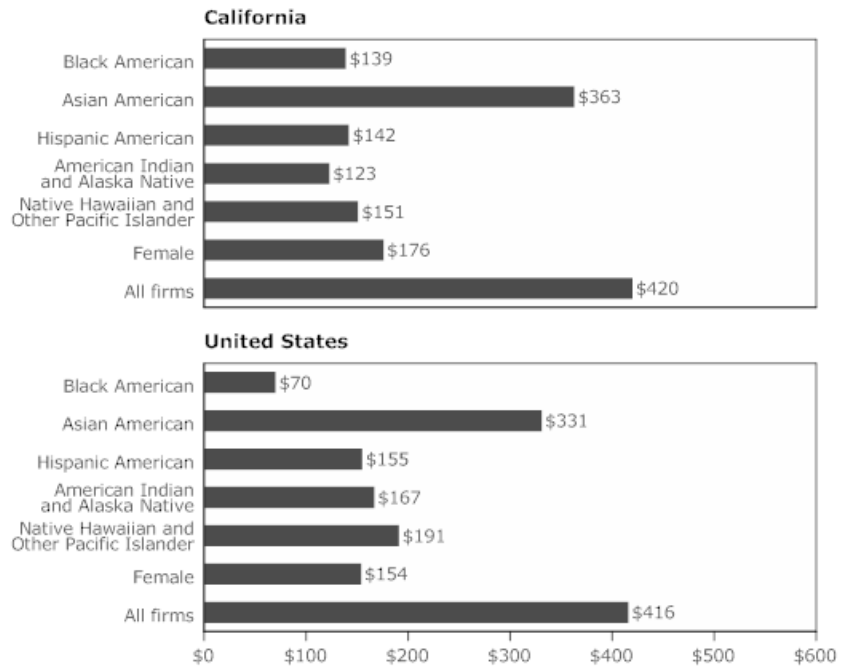


Figure G-22 presents average annual receipts in 2007 for only employer firms in California and in the United States. Minority- and women-owned employer firms had substantially lower average business receipts than all employer firms in California and in the nation as a whole. Average annual receipts for Black American- (\$1.6 million) and Asian American-owned employer firms (\$1.4 million) in California were greater than firms owned by other minority groups but still below the average for all firms (\$2.0 million). Average receipts for American Indian and Alaska Native-owned firms (\$837,000) were less than half of the average for all firms in California.

Average receipts for women-owned employer firms (\$1.3 million) were about two-thirds that of all firms in California.

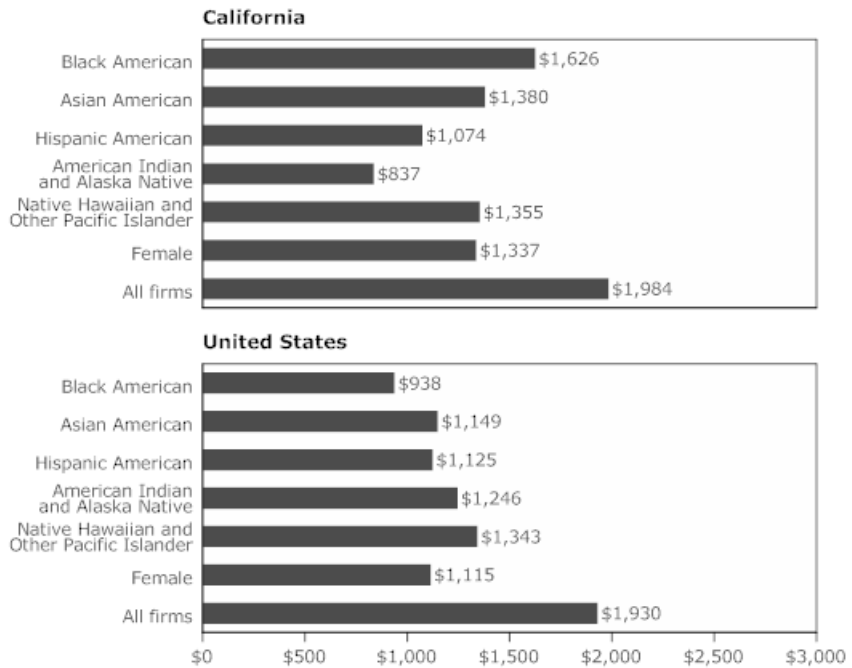
Figure G-22.
Mean annual receipts
(thousands) for
employer firms, by
race/ethnicity and
gender of owners,
2007

Note:

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

Source:

2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.



Receipts by industry. The Study Team also analyzed SBO receipts data separately for firms in construction and professional, scientific, and technical services. Figure G-23 presents mean annual receipts in 2007 for all (i.e., employer and non-employer firms combined) construction and professional, scientific, and technical services firms and for just employer firms by racial/ethnic and gender group. Results are presented for California and for the nation as a whole.

Figure G-23.
Mean annual receipts (thousands) for firms in the construction and professional, scientific and technical services industries, by race/ethnicity and gender of owners, 2007

	All firms		Employer firms	
	Construction	Professional, scientific & technical services	Construction	Professional, scientific & technical services
California				
Black American	N/A	\$92	NA	\$725
Asian American	\$323	149	\$1,655	796
Hispanic American	202	108	1,146	691
American Indian and Alaska Native	254	81	1,232	324
Native Hawaiian and other Pacific Islander	483	246	2,378	N/A
Female	485	106	2,179	643
All firms	\$600	\$205	\$2,174	\$977
United States				
Black American	\$107	\$78	\$1,069	\$717
Asian American	273	201	1,533	950
Hispanic American	167	121	1,083	693
American Indian and Alaska Native	262	116	1,390	630
Native Hawaiian and other Pacific Islander	363	187	1,628	1,148
Female	361	98	1,625	543
All firms	\$447	\$201	\$1,789	\$863

Notes: Does not include publicly-traded companies or other firms not classifiable by race/ethnicity and gender. "NA" denotes that data were not available at the time of publication and are subject to revision.

Source: 2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.

Construction. In the California construction industry, average 2007 receipts for minority- and women-owned firms were lower than the average for all firms (\$600,000). Results for all firms (i.e., employer and non-employer firms combined) indicate that:

- Average receipts for Hispanic American-owned construction firms (\$202,000) were approximately one-third that of all California construction firms.
- Average receipts for American Indian and Alaska Native-owned construction firms (\$254,000) were less than half that of all California construction firms.
- Average receipts for Asian American- and Native Hawaiian-owned construction firms were higher than those of all other minority-owned construction firms, but were still substantially below that of all California construction firms.
- Average receipts for women-owned construction firms in California (\$485,000) were less than the average for all firms.
- Data were not available for Black American-owned construction firms in California.

Although SBO data indicated that average receipts were higher for construction employer firms than for all construction firms (i.e., employer and non-employer firms combined), average receipts for minority- and women-owned construction employer firms were still substantially less than that of all construction employer firms (\$2.2 million). That pattern was evident in California and in the nation as a whole.

Professional, scientific, and technical services. In the California professional, scientific, and technical services industry, minority-owned firms had lower average receipts than all firms. Results for all firms (i.e., employer and non-employer firms combined) in the professional, scientific, and technical services industry indicate that:

- Average receipts for Black American-owned firms (\$92,000) were about 45 percent of that of all firms (\$205,000).
- Average receipts for American Indian and Alaska Native-owned firms (\$81,000) were approximately 39 percent of that of all firms.
- Average receipts for Asian American-owned businesses (\$149,000) were substantially less than that of all firms.
- Average receipts for Hispanic American-owned (\$108,000) were about half that of all firms.
- Average receipts for women-owned firms (\$106,000) were also about half that of all firms.
- Average receipts for Native Hawaiian-owned firms were higher than that of all firms.

An examination of only employer firms in professional, scientific, and technical services yielded similar results — minority- and women-owned firms had between 33 percent and 82 percent of the average annual receipts of all California employer firms in professional, scientific, and technical services in 2007 (\$977,000).

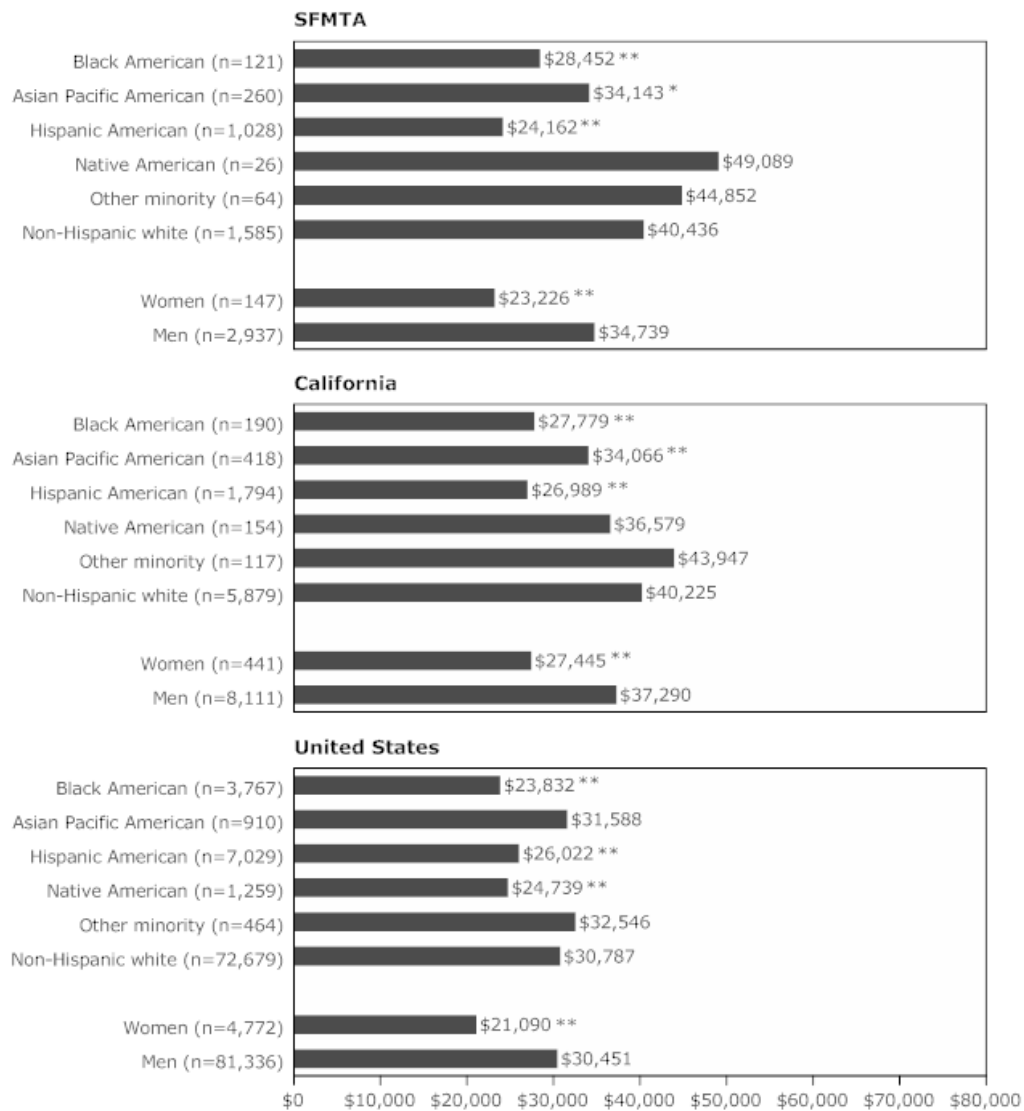
Business earnings. In order to assess the success of self-employed minorities and women in transit-related industries in SFMTA’s market area, the Study Team examined earnings of business owners using Public Use Microdata Series (PUMS) data from the 2000 U.S. Census and 2008-2012 ACS. The Study Team analyzed earnings of incorporated and unincorporated business owners age 16 and over who reported positive business earnings.

Construction business owner earnings, 1999. Figure G-24 shows average earnings in 1999 for business owners in the construction industry in SFMTA’s relevant market area, California, and in the United States. Business earning results for 1999 were based on the 2000 Census, in which individuals were asked to give their business income for the previous year:

- On average, Hispanic American construction business owners in SFMTA’s relevant market area (\$24,162) earned substantially less than non-Hispanic white construction business owners (\$40,436).
- Black American construction business owners (\$28,452) also earned substantially less than non-Hispanic white business owners.
- Asian Pacific-American construction business owners (\$34,143) also earned substantially less than non-Hispanic white business owners in SFMTA’s relevant market area.

- Native American (\$49,089) and other minority (\$44,852) construction business owners earned more than non-Hispanic white business owners, but those differences were not statistically significant, in part due to small sample sizes. At the national level, differences in earnings between Native American (\$23,157) and non-Hispanic white (\$30,804) construction business owners were statistically significant.
- Female construction business owners in SFMTA’s relevant market area (\$23,226) earned substantially less, on average, than male construction business owners (\$34,739).

Figure G-24.
Mean annual business owner earnings in the construction industry, 1999



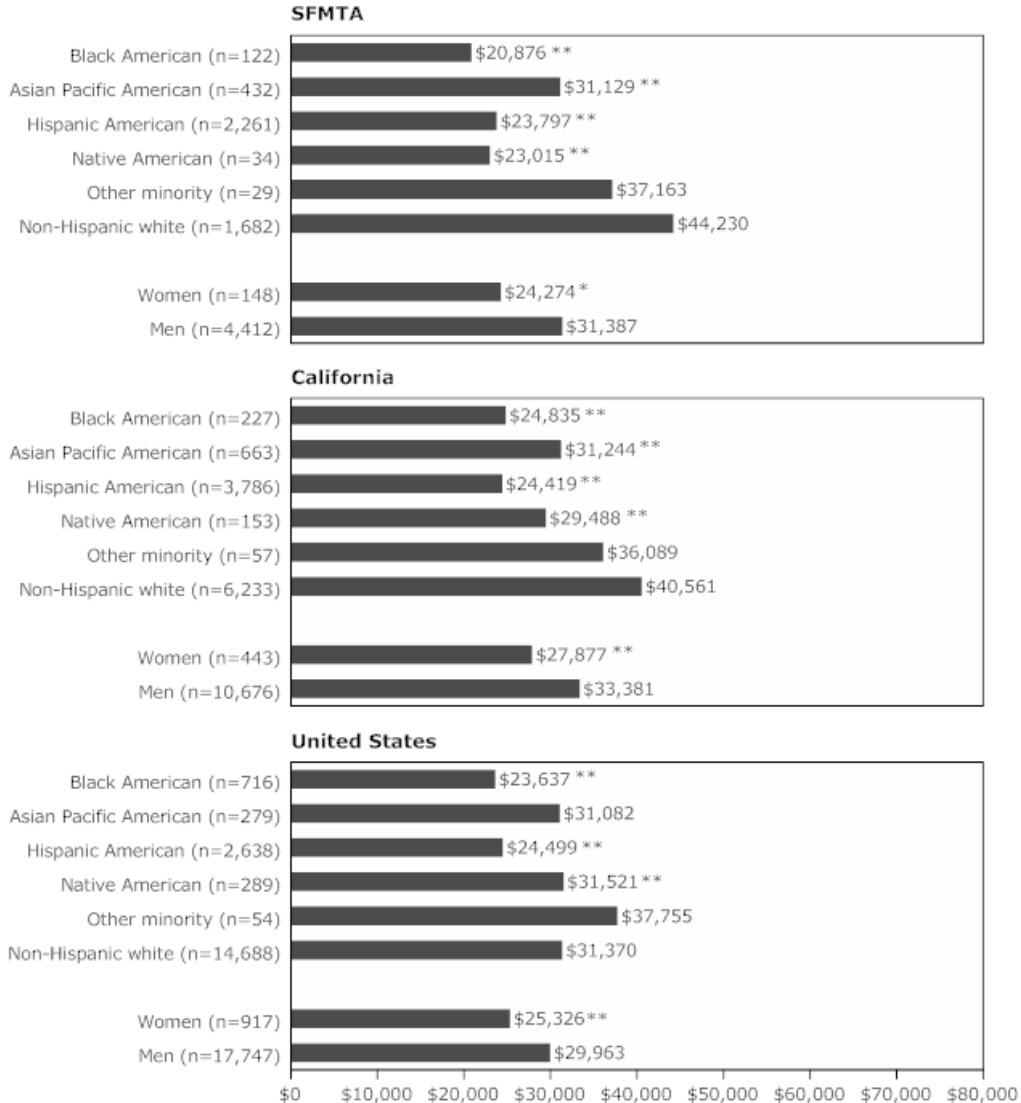
Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 1999 dollars. *,** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

“Other minorities” includes other minority groups and Subcontinent Asian Americans, due to small sample sizes.

Source: The Study Team from 2000 U.S. Census 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Construction business owner earnings, 2007-2012. The 2008-2012 ACS also reports business owner earnings. Because of the way that the U.S. Census Bureau conducts each year's ACS, earnings for business owners reported in the 2008-2012 samples were for the previous 12 months between 2007 and 2012.²²⁴ However, all dollar amounts are presented in 2012 dollars. Figure F-25 shows earnings in 2007-2012 for business owners in the construction industry in SFMTA's relevant market area, California, and the nation as a whole.

Figure G-25.
Mean annual business owner earnings in the construction industry, 2007-2012



Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 2012 dollars.
 *,** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.
 "Other minorities" includes other minority groups and Subcontinent Asian Americans, due to small sample sizes.

Source: The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

²²⁴ For example, if a business owner completed the survey on January 1, 2008, the figures for the previous 12 months would reference January 1, 2007 to December 31, 2007. Similarly, a business owner completing the survey December 31, 2012 would reference amounts since January 1, 2012.

Similar to 2000 earnings data, there were large differences in earnings between minority business owners and non-Hispanic white business owners, both in SFMTA's relevant market area and California as a whole. In SFMTA's market area, earnings differences between minority and non-Hispanic white business owners were more pronounced in 2007-2012 than in 2000. In contrast, the earnings difference between female and male business owners was smaller in 2007-2012 than in 2000.

Professional services business owner earnings, 1999. Figure G-26 presents average earnings in 1999 for business owners in the professional services industry in SFMTA's market area, California, and the United States. Those results are based on the 2000 Census. Due to small sample sizes for individual racial/ethnic groups in the professional services industry, the Study Team grouped all minority business owners together:

- On average, minority professional services business owners in SFMTA's relevant market area (\$55,439) earned somewhat less than non-Hispanic white professional services business owners (\$57,084) in 1999, but that difference was not statistically significant.
- Female professional services business owners in SFMTA's market area (\$48,668) earned less than male business owners (\$60,442) in 1999, although this difference was not significant.

Figure G-26.
Mean annual business owner earnings in the professional services industry, 1999



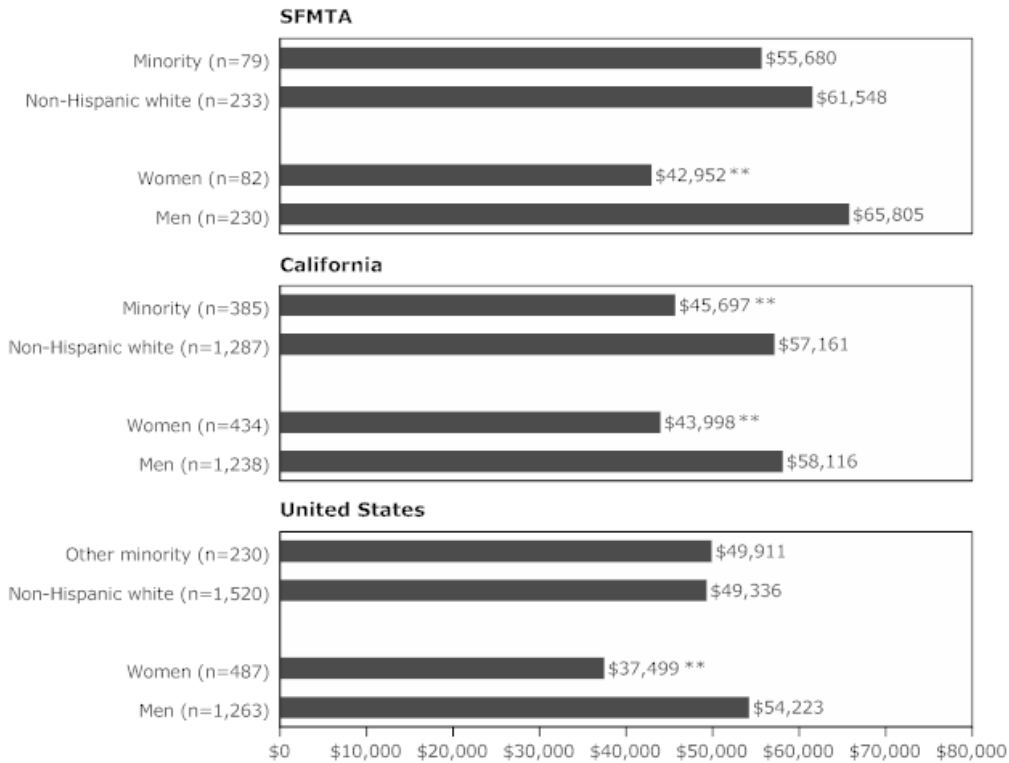
Note: The sample universe is business owners age 16 and over who reported positive earnings. "Other Minorities" includes Black Americans, Hispanic Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Native Americans and other minority groups. Sample sizes for these race/ethnicity groups were too small to analyze individually. All amounts in 1999 dollars. ** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

Source: The Study Team from 2000 U.S. Census 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Professional services business owner earnings, 2007-2012. As with earnings data for the construction industry, earnings for professional services business owners that were reported in the 2008-2012 ACS samples were for the time period between 2007 and 2012. Those results are shown in Figure G-27. All dollar amounts are presented in 2012 dollars. Due to small sample sizes for individual racial/ethnic groups in the professional services industry, the Study Team grouped all minority business owners together.

As shown in Figure G-27, in 2007-2012, earnings for minority (\$55,680) business owners in the professional services industry in SFMTA's market area were lower than for non-Hispanic white (\$61,548) business owners, although this difference was not significant. Earnings for female (\$42,952) business owners in the professional services industry in SFMTA's market area were substantially lower than male business owners (\$65,805) in SFMTA's market area.

Figure G-27.
Mean annual business owner earnings in the professional services industry, 2007-2012



Note: The sample universe is business owners age 16 and over who reported positive earnings. "Other Minorities" includes Black Americans, Hispanic Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Native Americans and other minority groups. Sample sizes for these race/ethnicity groups were too small to analyze individually. All amounts in 2012 dollars. ** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

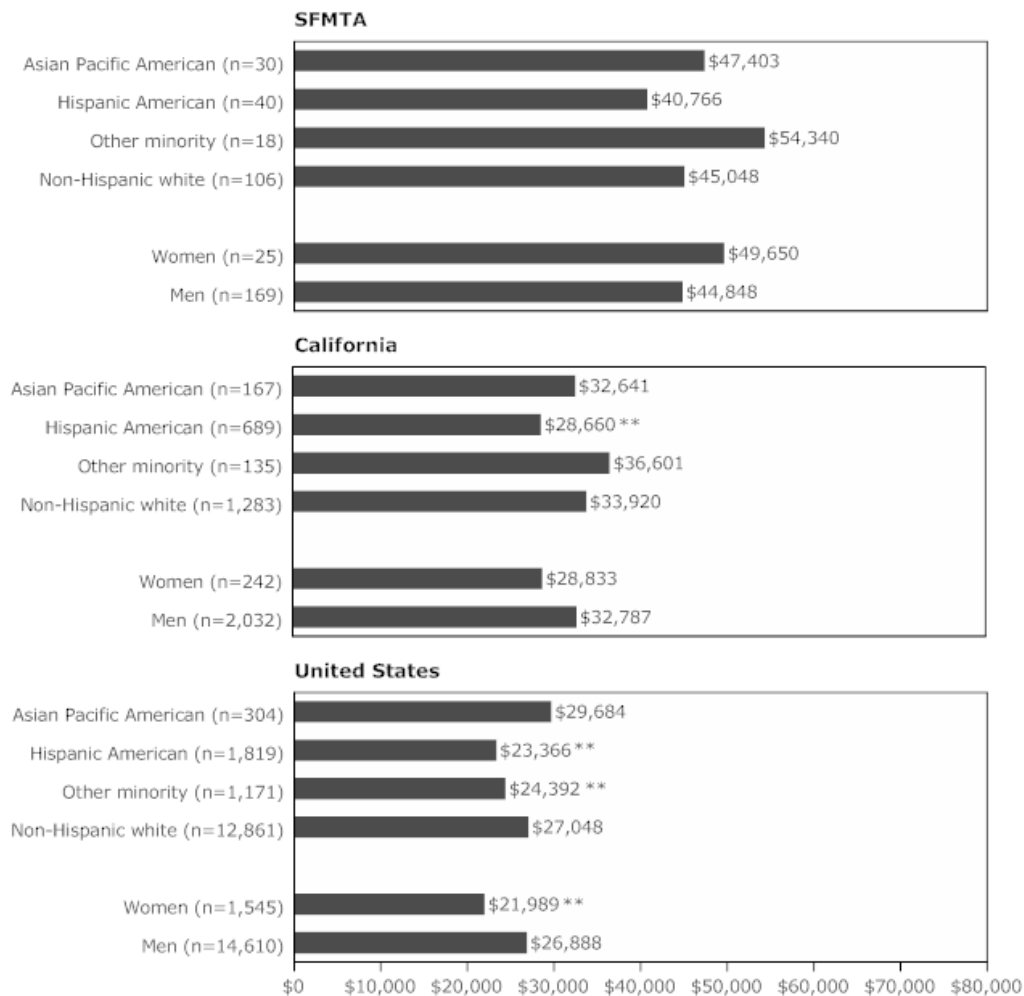
Source: The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Other services business owner earnings, 1999. Figure G-28 presents average earnings in 1999 for business owners in the other services industry in SFMTA's market area, California, and the United States. Those results are based on the 2000 Census. Due to small sample sizes for individual racial/ethnic groups in the professional services industry, the Study Team grouped Subcontinent Asian American, Native American, Black American, and other minority business owners together into the other minority category:

- On average, Hispanic American other services business owners in SFMTA's relevant market area (\$40,766) earned less than non-Hispanic white construction business owners (\$45,048), although this difference was not statistically significant.
- Asian Pacific-American other services business owners (\$47,403) earned more than non-Hispanic white business owners in SFMTA's relevant market area, although this was not a substantial difference.

- Other minority (\$54,340) other services business owners earned more than non-Hispanic white business owners, but those differences were not statistically significant, in part due to small sample sizes.
- Female other services business owners in SFMTA’s relevant market area (\$49,650) earned more, on average, than male other services business owners (\$44,848).

Figure G-28.
Mean annual business owner earnings in the other services industry, 1999



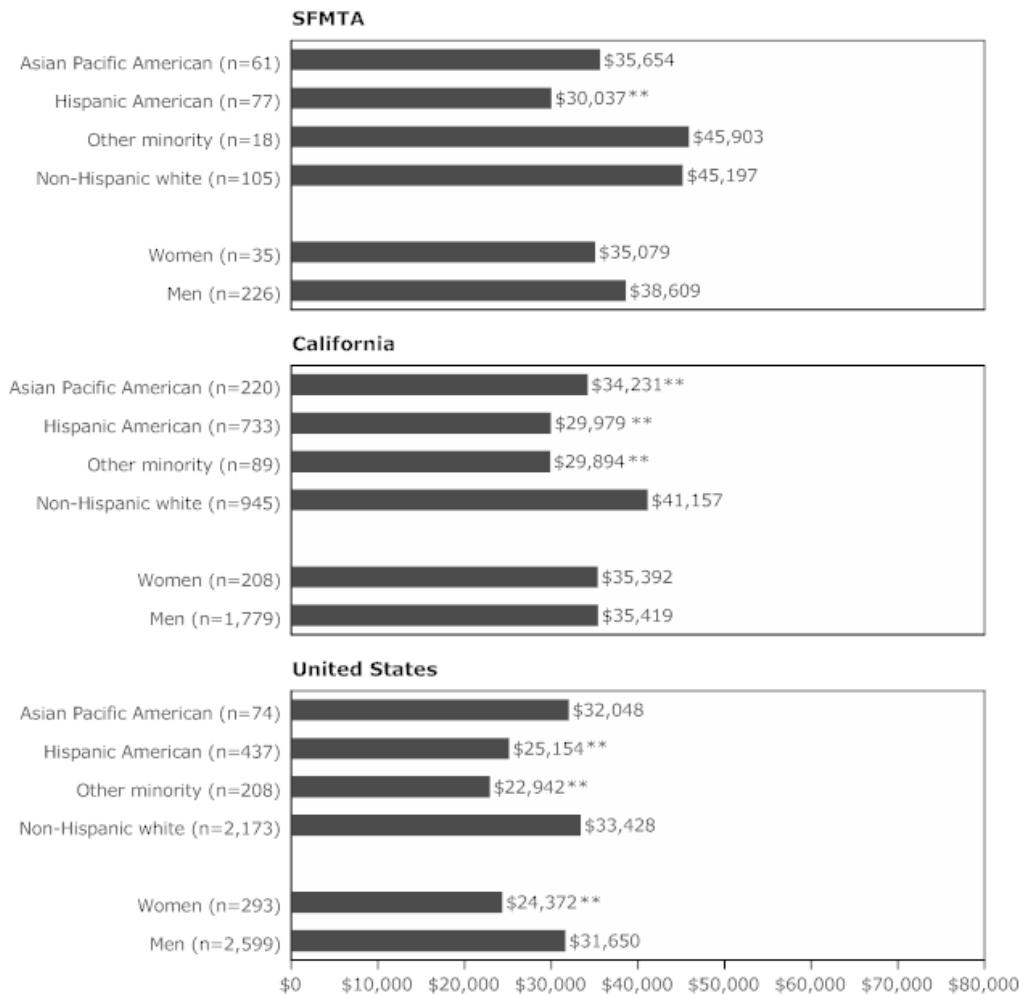
Note: The sample universe is business owners age 16 and over who reported positive earnings. “Other Minorities” includes Black Americans, Subcontinent Asian Americans, Native Americans and other minority groups. Sample sizes for these race/ethnicity groups were too small to analyze individually. All amounts in 1999 dollars. ** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

Source: The Study Team from 2000 U.S. Census 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Other services business owner earnings, 2007-2012. As with earnings data for the construction and professional services industries, earnings for other services business owners that were reported in the 2008-2012 ACS sample were for the time period between 2007 and 2012. Those results are shown in Figure G-29. All dollar amounts are presented in 2012 dollars. Due to small sample sizes for several individual racial/ethnic groups in the other services industry, the Study Team grouped Subcontinent Asian American, Native American, Black American, and other minority business owners together.

As shown in Figure G-29, in 2007-2012, earnings for most minority business owners in the other services industry in SFMTA’s market area were lower than for non-Hispanic white (\$45,197) business owners, although these differences were not significant. Earnings for female (\$35,079) business owners in the other services industry in SFMTA’s market area were marginally lower than male business owners (\$38,609) in SFMTA’s market area.

Figure G-29.
Mean annual business owner earnings in the other services industry, 2007-2012



Note: The sample universe is business owners age 16 and over who reported positive earnings. “Other Minorities” includes Black Americans, Hispanic Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Native Americans and other minority groups. Sample sizes for these race/ethnicity groups were too small to analyze individually. All amounts in 2012 dollars. ** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

Source: The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Regression analyses of business earnings. Differences in business earnings among different racial/ethnic and gender groups may be at least partially attributable to race- and gender-neutral factors such as age, marital status, and educational attainment. The Study Team performed regression analyses using 2008-2012 ACS data to examine whether there were differences in 2007-2012 business earnings between minorities and non-Hispanic whites and between women and men after statistically controlling for certain race- and gender-neutral factors.

The Study Team applied an ordinary least squares (OLS) regression model to the data that was very similar to models reviewed by courts after other disparity studies.²²⁵ The dependent variable in the model was the natural logarithm of business earnings. Business owners that reported zero or negative business earnings were excluded, as were observations for which the U.S. Census Bureau had imputed values of business earnings. Along with variables for the race/ethnicity and gender of business owners, the model also included available measures from the data considered likely to affect earnings potential, including age, age-squared, marital status, ability to speak English well, and educational attainment. The Study Team created separate regression models to examine business earnings in the construction, professional services, and other services industries in SFMTA's relevant market area.

Construction industry in SFMTA's market area, 2007-2012. Figure G-30 presents the results of the regression model for 2007-2012 business earnings in the construction industry in SFMTA's marketplace (3,366 observations). The model indicated that several race- and gender-neutral factors significantly predicted earnings of business owners in the construction industry in SFMTA's market area:

- Older business owners tended to have greater business earnings than younger business owners (age had less of an effect for the oldest individuals);
- Married business owners tended to have greater business earnings than unmarried business owners;
- Business owners who spoke English well tended to have greater business earnings than business owners who do not;
- Having a disability was associated with lower business earnings; and
- Business owners with greater educational attainment (such as a four-year degree) tended to have greater business earnings than business owners who do not.

After statistically controlling for race- and gender-neutral factors, there were still statistically significant effects of race and gender. Specifically, being Black American, Asian Pacific American, Hispanic American, Native American, or female was associated with lower business earnings. Being a member of another minority group (Subcontinent Asian American or other race minority) also appeared to be associated with lower business earnings, but that difference was not statistically significant (perhaps because of small sample sizes).

²²⁵ For example, National Economic Research Associates, Inc. 2000. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Minnesota Department of Transportation; and National Economic Research Associates, Inc. 2004. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Illinois Department of Transportation.

Figure G-30.
SFMTA construction business owner earnings model, 2007-2012

Note:

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

“Other minority” includes Subcontinent Asian Americans and other race minorities, due to small sample sizes.

Source:

The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient
Constant	7.304 **
Age	0.104 **
Age-squared	-0.001 **
Married	0.342 **
Speaks English well	0.192 **
Disabled	-0.586 **
Less than high school	-0.166 **
Some college	0.156 **
Four-year degree	0.317 **
Advanced degree	0.200
African American	-0.839 **
Asian Pacific American	-0.219 **
Hispanic American	-0.278 **
Native American	-1.403 **
Other minority	-0.531
Female	-0.611 **

Professional services industry in SFMTA’s market area, 2007-2012. Figure G-31 presents the results of the regression model of business owner earnings specific to the professional services industry in SFMTA’s market area in 2007-2012 (265 observations). Three race- and gender-neutral factors were statistically significant in explaining business earnings in the professional services industry in SFMTA’s market area:

- Older business owners tended to have greater business earnings than younger business owners (age had less of an effect for the oldest individuals);
- Business owners who spoke English well tended to have greater business earnings than business owners who do not; and
- Business owners with less than a high school degree tended to have greater business earnings than business owners who do not.²²⁶

Due to small sample sizes, all minorities were combined together and compared to non-Hispanic white business owners. After accounting for race- and gender neutral factors, the model did not indicate statistically significant effects of race/ethnicity. However, being female was associated with lower business earnings, and the effect of gender was statistically significant.

²²⁶ This result may be due to small sample sizes.

Figure G-31.
SFMTA professional services industry
business owner earnings model, 2007-
2012

Note:

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

Source:

The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Variable	Coefficient
Constant	5.322 **
Age	0.167 **
Age-squared	-0.002 **
Married	0.296
Speaks English well	1.994 **
Disabled	-0.479
Less than high school	2.015 **
Some college	-0.572
Four-year degree	-0.314
Advanced degree	-0.410
Minority	-0.276
Female	-0.720 **

Other services industry in SFMTA’s market area, 2007-2012. Figure G-32 presents the results of the regression model of business owner earnings specific to the other services industry in SFMTA’s market area in 2007-2012 (183 observations). Age was the only race- and gender-neutral factor that was statistically significant in explaining business earnings in the other services industry in SFMTA’s market area. Older business owners tended to have greater business earnings than younger business owners (age had less of an effect for the oldest individuals.)

Due to small sample sizes, all minorities were combined together and compared to non-Hispanic white business owners. After accounting for race- and gender neutral factors, the model did not indicate statistically significant effects of race/ethnicity.

Figure G-32.
SFMTA other services industry business
owner earnings model, 2007-2012

Note:

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

Source:

The Study Team from 2008-2012 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

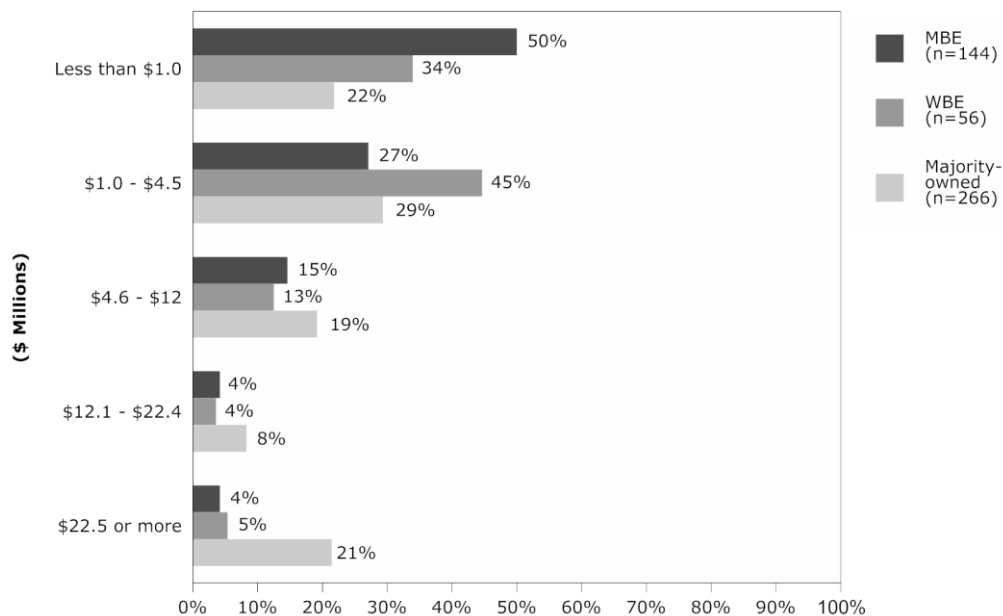
Variable	Coefficient
Constant	4.605 **
Age	0.263 **
Age-squared	-0.003 **
Married	-0.325
Speaks English well	0.104
Disabled	-0.481
Less than high school	-0.519
Some college	-0.126
Four-year degree	-0.183
Advanced degree	0.440
Asian Pacific American	-0.071
Hispanic American	0.087
Other Minority	0.184
Female	-0.405

Gross revenue of construction and professional services firms from availability surveys. In the availability telephone surveys that the Study Team conducted for the study, firm owners and managers were asked to identify the size range of their annual gross revenue across all California locations. Within the construction and professional services industries in SFMTA’s relevant market area, the Study Team separately examined gross revenue of construction and professional services businesses.

Construction. Figure G-33 presents the reported annual revenue for MBEs, WBEs, and majority-owned construction businesses.

- A larger percentage of MBEs (50%) and WBEs (34%) than majority-owned businesses (22%) reported average revenue of less than \$1 million per year.
- A smaller proportion of both MBEs (23%) and WBEs (21%) reported average revenue of \$4.6 million or more per year compared with majority-owned businesses (49%).
- Four percent of MBEs and five percent of WBEs reported average revenue of \$22.5 million or more, whereas 21 percent of majority-owned businesses reported such levels of revenue.

Figure G-33.
Gross revenue of company for all California locations, construction industry



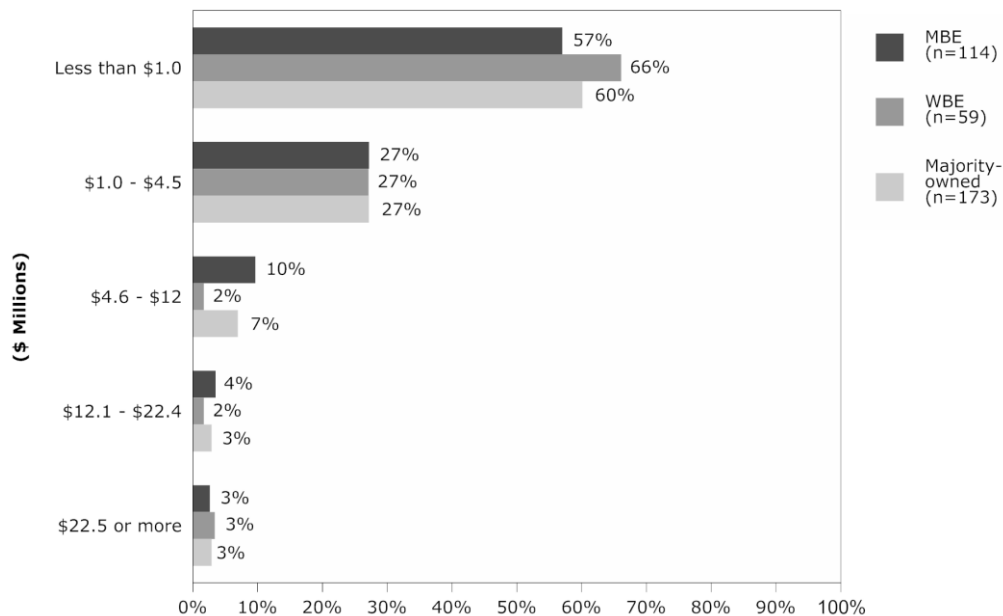
Note: WBE is white women-owned firms.
 Total may not add to 100 percent due to rounding.

Source: The Study Team from 2012 - 2015 Availability Surveys.

Professional services. Professional services businesses were also asked to report gross revenue across all California locations. Figure G-34 presents those results.

- Compared to MBEs (57%) and majority-owned businesses (60%), a larger percentage of WBEs (66%) reported average revenue of less than \$1 million per year.
- A smaller proportion of majority-owned businesses (13%) and WBEs (7%) than MBEs (16%) reported average revenue of \$4.6 million or more.
- Approximately three percent of MBEs, WBEs, and majority-owned businesses reported average revenue of \$22.5 million or more

Figure G-34.
Gross revenue of company for all California locations, professional services industry



Note: WBE is white women-owned firms.
 Total may not add to 100 percent due to rounding.

Source: The Study Team from 2012 - 2015 Availability Surveys.

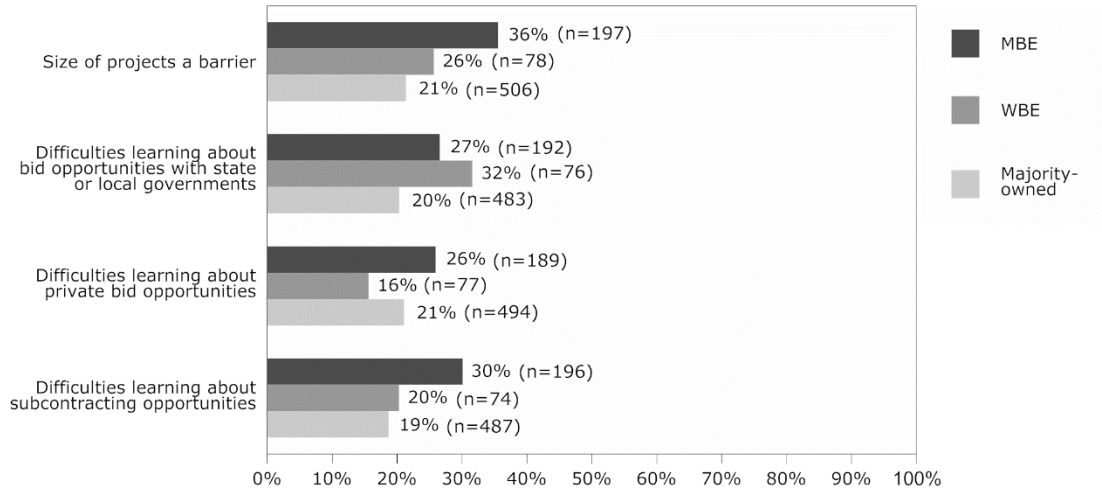
Potential Barriers to Starting or Expanding Businesses

As part of availability surveys with businesses in SFMTA’s relevant market area, the Study Team asked firm owners and managers if they had experienced barriers or difficulties associated with starting or expanding a business. The Study Team asked if:

- The size of projects had presented a barrier to bidding;
- The firm had experienced difficulties learning about bid opportunities with state or local governments;
- The firm had experienced difficulties learning about bid opportunities with private companies in California; and
- The firm had experienced difficulties learning about subcontracting opportunities in California.

Figure G-35 presents responses to those questions for MBEs, WBEs, and majority-owned businesses. The Study Team combined the responses for construction and professional services businesses.

Figure G-35.
Responses to availability interview questions from California MBE, WBE, and majority-owned construction and professional services firms



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

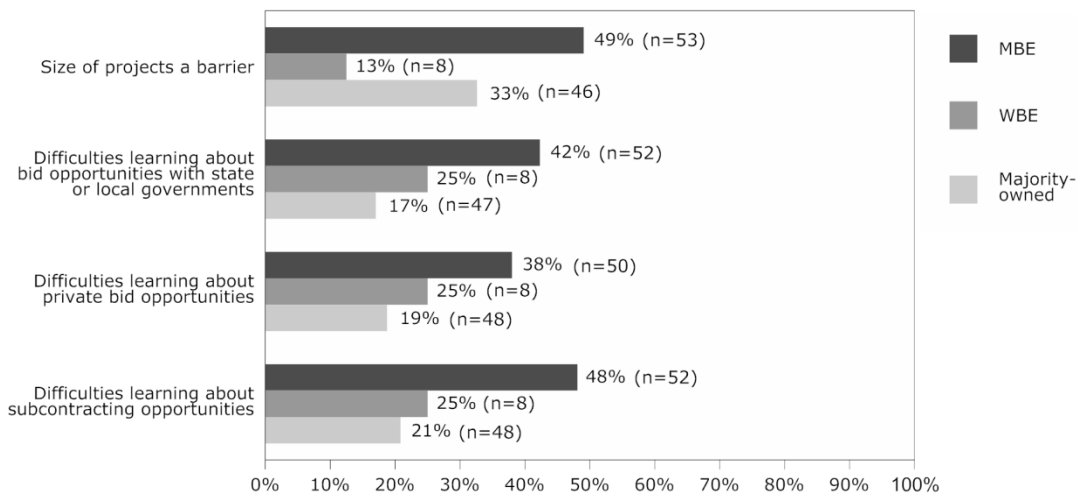
Source: The Study Team.

As shown in Figure G-35, MBEs (36%) and WBEs (26%) were more likely than majority-owned businesses (21%) to report that the size of projects had been a barrier to bidding. MBEs (27%) and WBEs (32%) were more likely than majority-owned businesses (20%) to report difficulties learning about bid opportunities with state or local governments. MBEs were more likely than WBEs and majority-owned businesses to report difficulties associated with learning about private sector bid opportunities and subcontracting opportunities.

The Study Team also examined how barriers and difficulties associated with starting or expanding a business affected young businesses.²²⁷ Figure G-36 shows that young MBEs and WBEs were generally more likely than majority-owned businesses to report difficulties associated with the size of projects; learning about bid opportunities with state or local governments; learning about private bid opportunities; and learning about subcontracting opportunities than majority-owned businesses.

²²⁷ For the purpose of this analysis, the study team identified "young businesses" as those that are ten years old or younger.

Figure G-36.
Responses to availability interview questions from California MBE, WBE, and majority-owned construction and professional services firms (young firms)



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

Source: The Study Team.

Summary. The Study Team used the 2010 SBA study of minority business dynamics to examine business closures, expansions, and contractions. That study found that, between 2002 and 2006, 29 percent of non-publicly held U.S. businesses had expanded their employment, 24 percent had contracted their employment, and 30 percent had closed. In the state of California:

- Black American-owned businesses were more likely than white-owned businesses and other businesses to close. Black American-owned businesses were less likely than other businesses to expand.
- Hispanic American-owned businesses were also more likely than white-owned businesses to close. However, Hispanic American-owned businesses were slightly more likely to expand than white-owned businesses.
- Overall, minority-owned businesses were less likely to contract than white-owned businesses.

The Study Team examined several different datasets to examine business receipts and earnings for businesses in California.

- Analysis of 2007 data indicated that, in California, average receipts for all minority- and women-owned businesses were lower compared to those of majority- or male-owned businesses in the construction industry.
- Those data also indicated that, in California, average receipts for all minority- and women-owned businesses were lower compared to those of majority- or male-owned businesses in the professional, scientific, and technical services industry.
- Regression analyses using Census data for business owner earnings indicated that in the construction industry, being a Black American, Hispanic American, or woman-owned business was associated with lower revenues, after statistically controlling for certain race- and gender-

neutral factors. In the professional services industry, female business owners had lower earnings than similarly situated men in California in 2007 through 2012.

- The Study Team also analyzed revenue data for businesses in the California construction and professional services industries collected as part of the Study's availability interviews.
 - For construction businesses, a smaller percentage of MBEs (50%) and WBEs (66%) reported revenue of over \$1 million than majority-owned businesses (78%).
 - For professional services businesses, a smaller percentage of WBEs (34%) than majority-owned businesses (40%) reported revenue of over \$1 million. The percentage of MBE professional services businesses reporting revenues of over \$1 million was 43 percent.

APPENDIX H

APPENDIX H

The Study Team

A. Study Team

Rosales Business Partners LLC

Rosales Business Partners LLC (RBP), a San Francisco based and Latino owned firm, specializes in innovative public-private business partnerships. The firm was founded in 2010 by members of the Rosales family--attorneys Mara Rosales and Jim Quadra-- who have dedicated virtually their entire careers to serving public sector clients and handling public sector issues. Ms. Rosales and Mr. Quadra launched RBP primarily to assist the public sector advance its public service mission in partnership with creative minds, strategies, products and solutions offered by the private sector.

Our partners and consultants have over 50 years of combined experience providing G2b (government to small business) or b2G (small business to government) economic development consulting services such as assistance with the creation and implementation of small and disadvantaged business participation policies and programs affecting public contracting. RBP is a certified San Francisco Micro LBE, Federal DBE and a State of California SBE.

Exstare Federal Services Group, LLC

Exstare Federal Services Group, LLC® (Exstare) is an Alexandria, Virginia-based, African American woman-owned management consulting firm that specializes in designing high level policies, conducting analytical studies, providing support services, and engaging in advocacy for disadvantaged business enterprise participation in USDOT-assisted contracts and airport concessions. The firm was established in May 2005, and since July 2005 has assisted recipients of FTA, FAA and FHWA funds with a full range of matters to develop, manage and implement compliant disadvantaged business enterprise programs. Exstare's portfolio of clients includes airports, transit agencies, cities, state departments of transportation, large domestic and multi-national companies, small and emerging businesses, and law firms.

Exstare has over 28 years of experience with DBE programs, largely through the background, work experience and expertise of Nancy West. The firm is distinguished from most of its competitors because of Nancy West's rare combination of legislative, federal agency, trade association, and public and private sector experience directly related to the formulation and implementation of policies and programs for disadvantaged business enterprises and other small businesses. Exstare is a certified DBE in several states, including the State of California.

BBC Research & Consulting

BBC Research & Consulting (BBC) is a 45-year-old economic and financial research firm specializing in Federal DBE Program disparity studies. The firm has completed disparity studies for over 80 state departments of transportation, regional transit authorities, cities, and other entities across the country, including for 10 transportation agencies within the State of California. BBC is also considered a national expert in helping agencies implement the Federal DBE Program. In addition, BBC has provided expert testimony related to disparity studies and the Federal DBE Program on several different occasions, most recently as part of the successful defense of the California Department of Transportation's (Caltrans) implementation of the Federal DBE Program — which was based in part on a 2007 BBC disparity study — in *Associated General Contractors of America, San Diego Chapter vs. Caltrans*.

JLM Management Group

JLM Management Group (JLM) is a multi-disciplinary consulting firm specializing in strategic communications, media and public relations, community outreach, as well as government relations and capacity building for public, private and nonprofit entities. Using a values-based approach, JLM Management Group works to promote positive growth, strategic partnerships, leadership development and public engagement.

JLM Management Group Principals James L. McGhee and Belle Taylor-McGhee have a long and proven track record of assessing the client's business needs and advancing best practices to that end – from the San Francisco Public Utilities Commission's (SFPUC) outreach efforts to LBEs – to Bay Area Rapid Transit District's (BART) efforts to promote its Small Business Programs. JLM is a certified Micro-San Francisco LBE and a Federal DBE.

Merriwether & Williams Insurance Services

Merriwether & Williams Insurance Services (MWIS) has been in business 17 years and since the firm's inception has administered contractor development programs. The commitment to removing barriers and enabling inclusion and opportunity for small and diverse contractors in the public contracting arena is a core discipline of the firm, and a primary value of its organization. MWIS has been actively engaged in aligning traditional risk management principles with clients' organizational goals of opportunity and inclusion. MWIS has an unparalleled reputation in insurance brokering and risk management disciplines, with special emphasis on removing insurance and bonding barriers enabling contracting opportunity for smaller firms.

For over a decade, MWIS has been committed to building bridges between local communities and public entities to affect greater contracting inclusion of small local businesses. MWIS has provided DBE utilization studies of its programs, working in close collaboration with program sponsors who large public agencies seek to expand their bidding pools and stakeholder support for major infrastructure development projects. Through these programs, MWIS has enabled small and minority construction firms to participate in over \$10 billion worth of development through OCIPS and to bid on over \$696 million in projects through the company's bonding programs.

Chinese for Affirmative Action

Chinese for Affirmative Action (CAA) was founded in 1969 to protect the civil rights of Chinese Americans and to advance multiracial democracy in the United States. Today, CAA conducts community building, research and analysis, and policy work to advance systemic and cultural change that promotes immigrant integration, language diversity, and racial justice.