

APPENDIX G.

Access to Capital for Business Formation and Success

Access to capital represents 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 or expand businesses.¹ This appendix explores access to business capital, which relates closely to matters discussed in Appendix E and Appendix F.

BBC first examines homeownership and mortgage lending, as home equity can be an important source of capital to start and expand businesses. The appendix then turns to business loans, assessing whether minorities and females experience difficulty acquiring capital. Using data acquired from availability interviews, the study team also examines whether minority- and women-owned firms (MBE/WBEs) are more likely than majority-owned firms (i.e., firms that are not owned by minorities or women) to report difficulties obtaining bonding and insurance.

Homeownership and Mortgage Lending

BBC analyzed homeownership and conditions in the mortgage lending industry, examining differences between race, ethnicity and gender groups that may lead to disparities in access to capital.

Homeownership. Wealth created through homeownership can be an important source of funds to help grow a business.² Any barriers to homeownership and home equity growth for minorities or women can affect business opportunities by constraining their acquisition of capital. Similarly, any barriers to accessing equity through home mortgages can limit the availability of funds for new or expanding businesses. In sum:

- A home is a tangible asset that provides borrowing power to the owner;
- Wealth that accrues from housing equity and tax savings from homeownership both contribute to capital formation;³
- Next to business lines of credit, mortgage loans have traditionally been the second largest loan type for small businesses;⁴ and

¹ For example, see: Coleman, Susan. 2002. *Small Firm Sources of Debt Capital: A Comparison by Gender, Race and Ethnicity*. University of Hartford.

² The recent (beginning in late 2006) housing and mortgage crisis has substantially affected the ability of small businesses to secure loans through home equity. A discussion of the consequences to small businesses and MBE/WBEs is provided at the end of this section.

³ Jackman, Mary R. and Robert W. Jackman 1980. "Racial Inequalities in Home Ownership." *Social Forces*. 58. 1221-1234.

⁴ 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.

- Homeownership correlates with an estimated 30 percent reduction in the probability of loan denial for small businesses.⁵

The study team first analyzed homeownership rates and home values before considering loan denial and subprime lending.

Homeownership rates in the Portland Metropolitan Statistical Area. Many studies have documented past discrimination in the housing market. The United States has a long history of restrictive real estate covenants and property laws that affect the ownership rights of minorities and women.⁶ For example, in the past, a woman's involvement in homeownership was ancillary to that of her husband or parents.⁷

BBC used 2000 Census and 2006-2008 American Community Survey (ACS) data to examine homeownership rates in the Portland Metropolitan Statistical Area (MSA), Oregon and the United States. Based on these data, Figure G-1 presents rates of homeownership for specific minority groups and non-Hispanic whites.

In 2000, about two-thirds of non-minorities owned homes in the Portland MSA. Homeownership rates in Portland were lower for each minority group compared to that of non-Hispanic whites.

- About 38 percent of African Americans were homeowners in the Portland MSA;
- Asian-Pacific Americans and Subcontinent Asian Americans had homeownership rates of about 57 percent and 45 percent, respectively.
- The homeownership rate for Hispanic Americans was about 32 percent; and
- About 48 percent of Native Americans and other race minorities owned homes.

In each case, the difference between the minority homeownership rate and the rate for non-Hispanic whites is statistically significant.

Homeownership rates for Native Americans and other race minorities in Portland did not change substantially between 2000 and 2006-2008. Over this same time span, rates increased for Asian-Pacific Americans, Subcontinent Asian Americans and Hispanic Americans, but African Americans were less likely to be homeowners in 2006-2008 than 2000. Only Asian-Pacific Americans owned homes in Portland at a similar rate compared to non-Hispanic whites in 2006-2008; each of the other minority groups had substantially lower rates of homeownership during this period.

The overall pattern in Portland was similar to that observed in the state as a whole: each minority group had significantly lower rates of homeownership compared to non-Hispanic whites in 2000. In

⁵ Cavalluzzo, Ken and John Wolken. 2005. "Small Business Loan Turndowns, Personal Wealth and Discrimination." *Journal of Business*. 78:2153-2178.

⁶ Ladd, Helen F. 1982. "Equal Credit Opportunity: Women and Mortgage Credit." *The American Economic Review*. 72:166-170.

⁷ Card, Emily. 1980. "Women, Housing Access, and Mortgage Credit." *Signs*. 5:215-219.

2006-2008 as well, non-Hispanic whites in Oregon had a substantially higher homeownership rate than other racial and ethnic groups.

For the most part, the Portland MSA and Oregon were similar to the United States regarding differences in homeownership across race/ethnicity groups. Compared to non-minorities in the country, rates of homeownership were significantly lower for each minority group in both years examined.

Figure G-1.
Homeownership rates,
2000 and 2006-2008

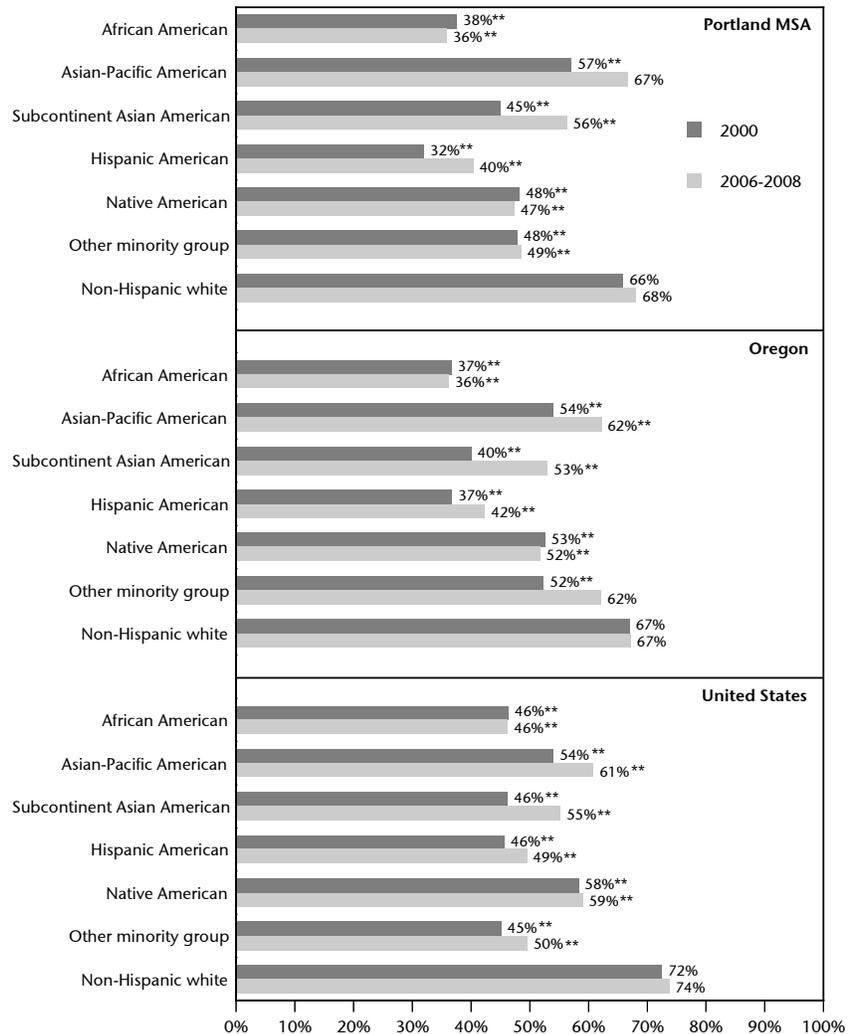
Note:

The sample universe is all households.

** Denotes that the difference in proportion between the minority group and non-Hispanic whites is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2000 U.S. Census and 2006-2008 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.



Although not presented here, the study team also examined homeownership rates for heads of household working in the construction and professional services industries. Except for Asian-Pacific Americans in the construction industry, each minority group had a lower rate of home ownership than non-Hispanic whites in these industries.

Lower rates of homeownership could in part reflect lower incomes for minorities. This may be self-reinforcing, as low wealth puts individuals at a disadvantage in becoming homeowners, and homeownership can be an effective path to building wealth. One 1980 study found statistically

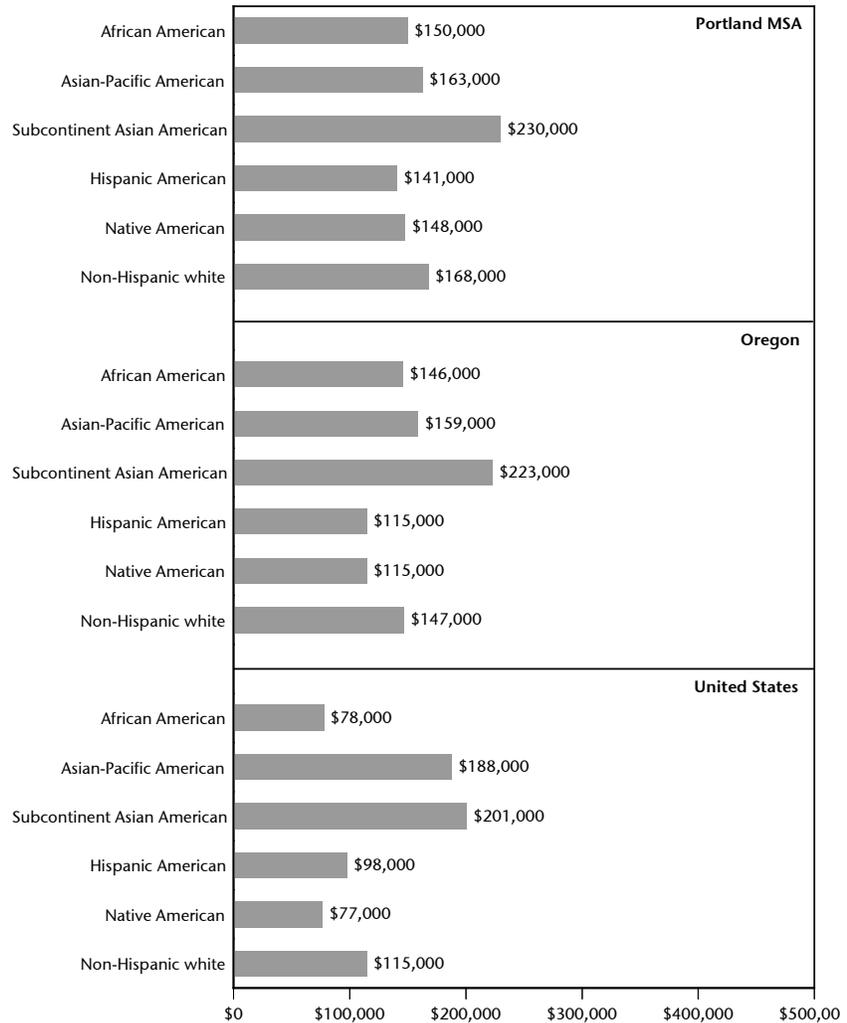
significant results indicating that the probability of homeownership has historically been lower for African Americans than for similarly situated non-Hispanic whites throughout the U.S.⁸

Home values. Recent research has found homeownership and home values to be direct determinants of capital available to form or expand businesses. Using 2000 Census and 2006-2008 ACS data, BBC compared median home values for different racial and ethnic groups. Figure G-2 presents results from 2000 for the Portland MSA, Oregon and the United States.

Figure G-2.
Median home value,
2000

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

Source:
BBC Research & Consulting from 2000 U.S. Census data.



In 2000, non-Hispanic whites living in Portland had a median home value of \$168,000, higher than median values of homes owned by African Americans (\$150,000), Hispanic Americans (\$141,000) and Native Americans (\$148,000). At about \$163,000, the median home value for Asian-Pacific Americans was closer to that of non-Hispanic whites. Subcontinent Asian Americans, however, generally owned homes of greater value than non-Hispanic whites.

⁸ Jackman. 1980. "Racial Inequalities in Home Ownership."

Figure G-3 presents median home values for different racial and ethnic groups in the Portland MSA, Oregon and the United States in 2006-2008. Patterns from these years in the Portland MSA were similar to 2000 results: African Americans, Hispanic Americans and Native Americans had lower median home values compared to non-Hispanic whites. Asian-Pacific Americans also owned homes with a lower median value, but Subcontinent Asian Americans' homes had a higher median value.

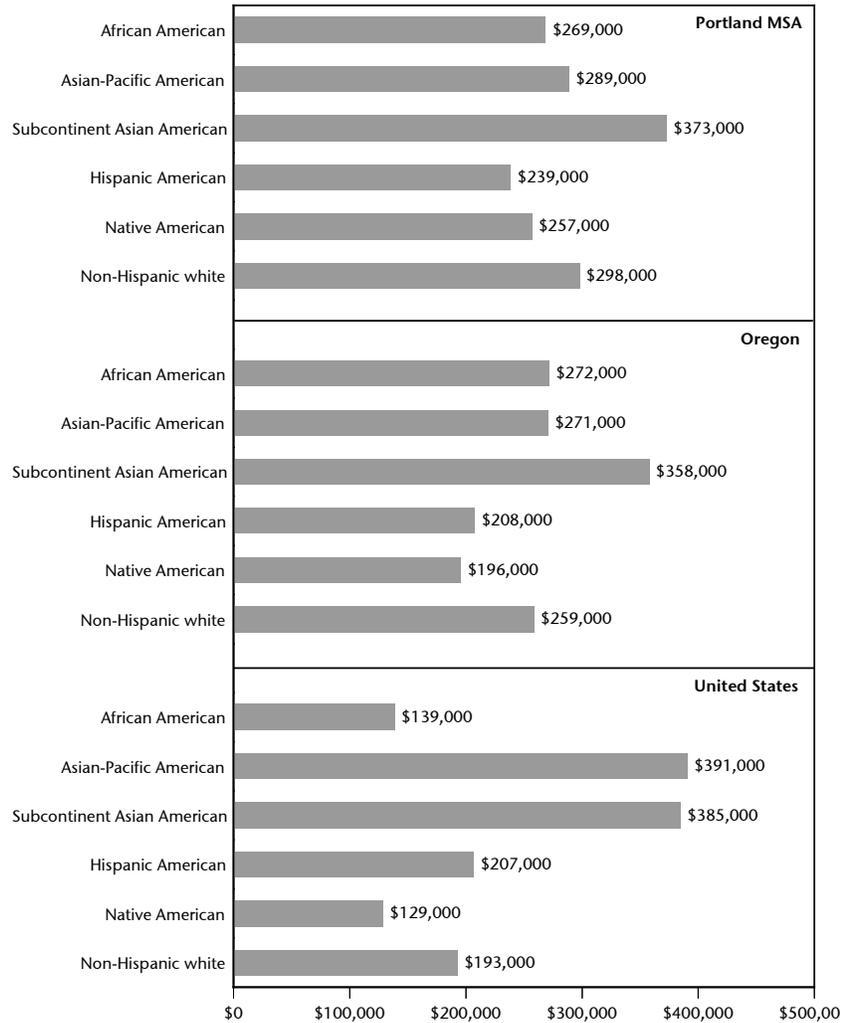
Figure G-3.
Median home values,
2006-2008

Note:

The sample universe is all owner-occupied housing units.

Source:

BBC Research & Consulting from 2006-2008 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.



Loan denial in mortgage lending. If discriminated against when applying for home mortgages, minorities may be denied opportunities to own homes, purchase more expensive homes or access equity in their current homes. To examine this possibility, BBC explored conditions in the mortgage lending market in the United States, Oregon and the Portland MSA.

The best available source of information concerning mortgage lending comes from Home Mortgage Disclosure Act (HMDA) data, which provide information on mortgage loan applications received by financial institutions, savings banks, credit unions and some mortgage companies.⁹ These data

⁹ Financial institutions are required to report HMDA data if they have assets of more than \$32 million, 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

include information about the location, dollar amount, and types of loans made, as well as race and ethnicity, income, and credit characteristics of loan applicants. Data are available for home purchase, home improvement and refinance loans.

BBC examined HMDA data provided by the Federal Financial Institutions Examination Council (FFIEC) on conventional loan denial rates for high-income borrowers. Conventional loans are those that are not insured by a government program; high-income borrowers include households with income at or above 120 percent of the U.S. Department of Housing and Urban Development (HUD) area median family income.¹⁰ Loan denial rates are based on denied loans as a share of all mortgage applications for which the application process was not terminated by the potential borrower.

Figure G-4 reports results for the Portland MSA, Oregon, and the nation in 2004, 2006 and 2008. Although 2008 was the most recent year for which HMDA data were available, the 2006 data are the most complete and up-to-date source as many of the institutions that originated loans in 2008 were no longer in business by the HMDA reporting date.¹¹

Mortgage lending data for the Portland MSA show higher denial rates for minority high-income households than for non-Hispanic white high-income households.¹² Among such households applying for mortgages, between 16 percent and 27 percent of Hispanic American applicants in Portland had their applications denied during the years examined, compared with between 9 percent and 14 percent of non-Hispanic white households. The loan denial rate for African Americans was also higher in 2004 and 2006 but comparable to the rate for non-Hispanic whites in 2008. In each year examined by the study team, a larger share of applications from Asian Americans resulted in denial. For Native Americans, denial rates varied from being higher than that of non-Hispanic whites in 2004 to being lower in 2008.

Results for the Portland MSA are similar to the nation as a whole. In the United States, minority high-income borrowers were generally more likely to be denied loans than non-minority high-income borrowers.

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.

¹⁰ The Portland MSA resides in a HUD region where the 2008 median family income was \$67,500. In Oregon, HUD area median family income ranged from \$48,100 to \$68,000.

¹¹ 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." Available online: <http://www.federalreserve.gov/pubs/bulletin/>.

¹² Rates are based on all loans originated during the year and not on a sample; thus, analyses using HMDA data do not require tests for statistical significance.

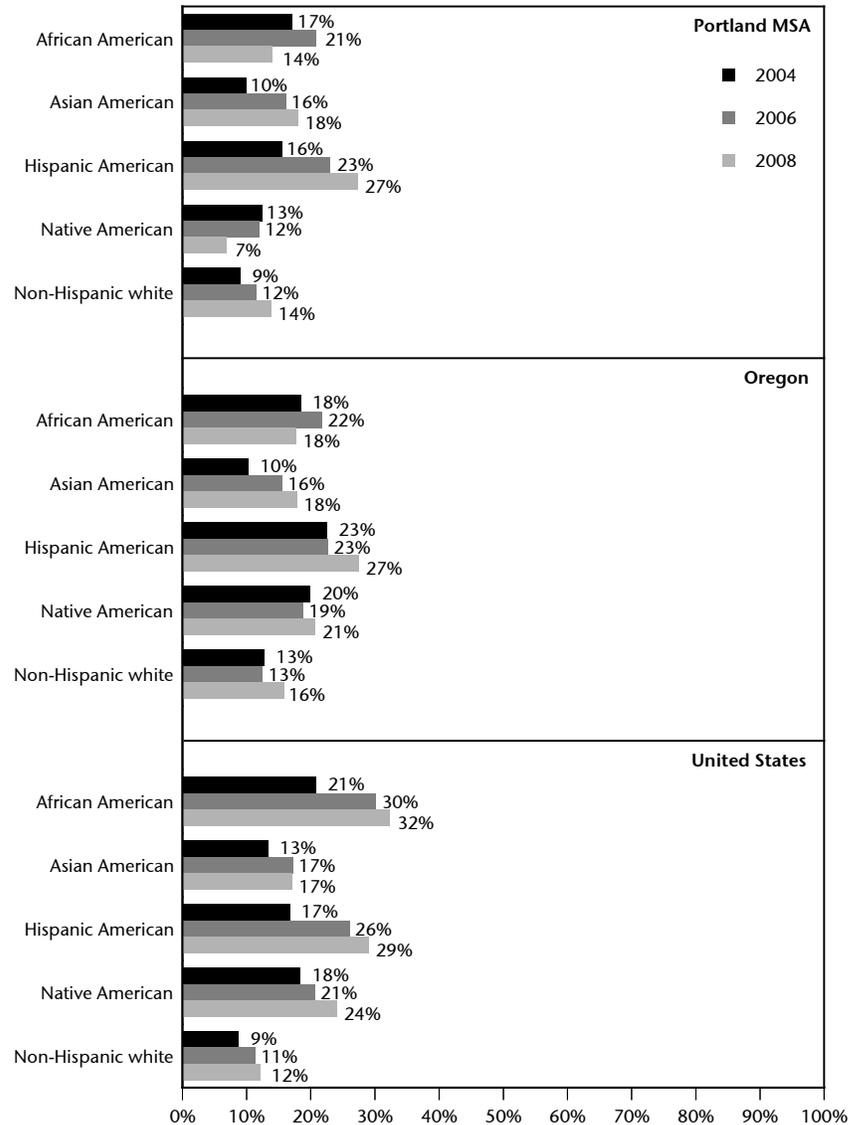
Figure G-4.
Denial rates on conventional purchase loans to high-income households in 2004, 2006 and 2008

Note:

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

Source:

FFIEC HMDA data, 2004, 2006 and 2008



National research. A number of 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.¹³ It was conducted using the most comprehensive set of credit characteristics assembled for a study on mortgage discrimination.¹⁴ The study provided persuasive evidence that lenders in the Boston area discriminated against minorities in 1990.¹⁵

¹³ 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.

¹⁴ Ladd, Helen F. 1998. "Evidence on Discrimination in Mortgage Lending." *The Journal of Economic Perspectives*. 12:41-62.

¹⁵ Yinger, John. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. New York: Russell Sage Foundation, 71.

- Using the Federal Reserve Board’s 1983 Survey of Consumer Finances and the 1980 Census of Population and Housing data, 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 controls.¹⁶
- Findings from a Midwest study indicate a significant relationship between race and both the number and size of mortgage loans. Data matched on socioeconomic characteristics revealed that African American borrowers across 13 census tracts received significantly fewer and smaller loans compared to their white counterparts.¹⁷

However, other studies have found that differences in preferences for Federal Housing Administration (FHA) loans — mortgage loans that are insured by the federal government — versus conventional loans among racial and ethnic groups may partly explain disparities found in conventional loan approvals between minorities and non-minorities in past years.¹⁸ Several studies have found that, historically, minority borrowers were far more likely to receive FHA loans than comparable non-Hispanic white borrowers at all income and wealth levels. The insurance on FHA loans protects the lender, but the borrower can be impacted by higher-cost loans.¹⁹

Subprime lending. Loan denial represents one of several ways minorities can be discriminated against in the home mortgage market; mortgage lending discrimination may also occur through higher fees and interest rates. The housing market provides a unique environment for this type of discrimination through fees associated with various loan types.

Until recently, 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.²⁰

With higher interest rates than prime loans, subprime loans are typically marketed and sold to customers with blemished or limited credit histories who would not typically qualify for prime loans. Over time, these loans have also become available to homeowners who did not want to make a down payment or provide proof of income and assets or wanted to purchase a larger home with a cost above that for which they would qualify from a prime lender.²¹ Because of higher interest rates and additional costs, subprime loans affect homeowners’ ability to grow home equity while simultaneously 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. BBC used a “rate-spread method” — in which

¹⁶ 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.

¹⁷ 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.

¹⁸ Canner. 1991. “Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets.”

¹⁹ Yinger. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. 80.

²⁰ See Avery, Brevoort, and Canner, “The 2006 HMDA Data.”

²¹ Gerardi, Shapiro, and P. Willen. 2008. “Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure.” *Federal Reserve Bank of Boston*.

subprime loans are identified as those with substantially above-average interest rates — to measure rates of subprime lending in 2004, 2006 and 2008.²² These results are presented in Figure G-5 and Figure G-6.

BBC also examined subprime lending rates in 2004 using the U.S. Department of Housing and Urban Development (HUD) Subprime Lender list. Rather than identifying subprime loans based on the interest rate, this approach identifies loans that have been issued by subprime lenders. HUD identifies such lenders using a number of different variables in HMDA data. For example, subprime lenders will usually have relatively lower origination rates; they will originate greater proportions of home refinance loans; and they typically do not sell a significant percentage of portfolios to government-sponsored enterprises. After compiling a list of “potential” subprime lenders, HUD called or visited the website of each lender to confirm that they specialized in subprime loans.²³

As an updated HUD list was not available after 2005, this analysis was conducted for 2004 but not 2006 or 2008. Results from this analysis are presented in Figure G-7.

Because lending patterns and borrower motivations differ depending on the type of loan being sought, the study team considered home purchase loans and refinance loans separately. Results from the two methods for identifying patterns in subprime lending did not differ substantially.

Based on 2004, 2006 and 2008 HMDA data, Figure G-5 shows the percent of conventional home purchase loans that were subprime in the Portland MSA, Oregon and the United States. In the Portland MSA during the three years examined, African American and Hispanic American borrowers were more likely to receive subprime loans than non-Hispanic whites. For example, in 2006, about 34 percent and 47 percent of conventional home purchase loans issued to African Americans and Hispanic Americans, respectively, were subprime. In contrast, subprime loans represented only about 16 percent of loans issued to non-Hispanic whites in Portland in 2006.

Native Americans applying for home purchase loans in the Portland MSA were more likely than non-Hispanic whites to receive subprime loans in 2004 and 2006 but less likely in 2008. In each year, an equal or smaller proportion of Asian Americans received subprime loans compared to non-minorities.

Many of the patterns found in the Portland MSA and the state were also evident in the United States as a whole.

²² Consistent with other researchers, first lien loans are identified as subprime if they have an interest rate more than 3 percentage points higher than the federal treasury rate of like maturity. For junior lien loans, the required rate difference is 5 percentage points.

²³ For more information on this methodology, visit the website for the Department of Housing and Urban Development at <http://www.huduser.org/>.

Figure G-5.
Percent of conventional home purchase loans that were subprime in 2004, 2006 and 2008

Note: Subprime loans are identified using rate spreads.
 Source: FFIEC HMDA data, 2006 and 2008.

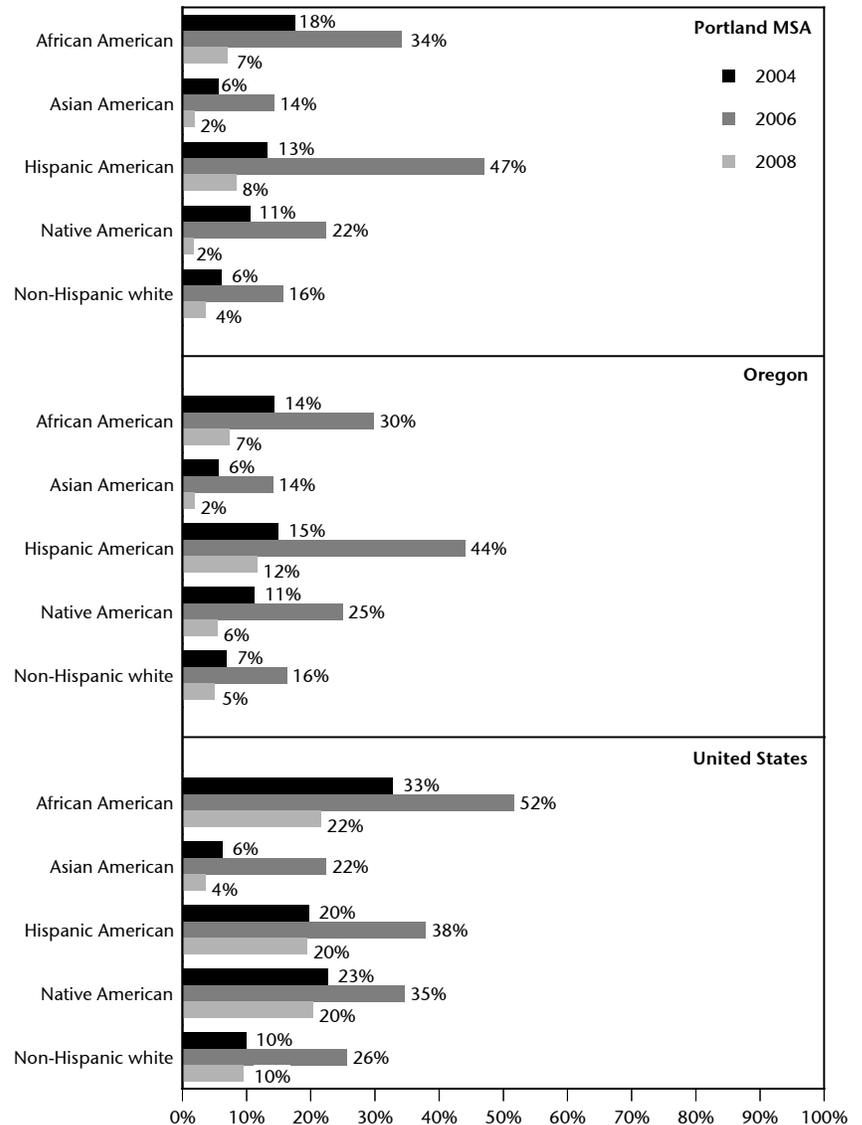


Figure G-6 shows the proportion of refinancing loans that were subprime with respect to the race or ethnicity of the borrower. In the Portland MSA in 2006, each minority group was more likely than non-Hispanic whites to refinance with a subprime loan. This pattern was also evident in 2004 and 2008 with one exception — Asian American borrowers were similar to non-Hispanic whites in the proportion that received subprime loans. Subprime lending followed a similar pattern in the state and nation: a larger share of minorities than non-Hispanic whites received these high-cost loans.

Figure G-6.
Percent of conventional refinancing loans that were subprime in 2004, 2006 and 2008

Note: Subprime loans are identified using rate spreads.
 Source: FFIEC HMDA data, 2006 and 2008.

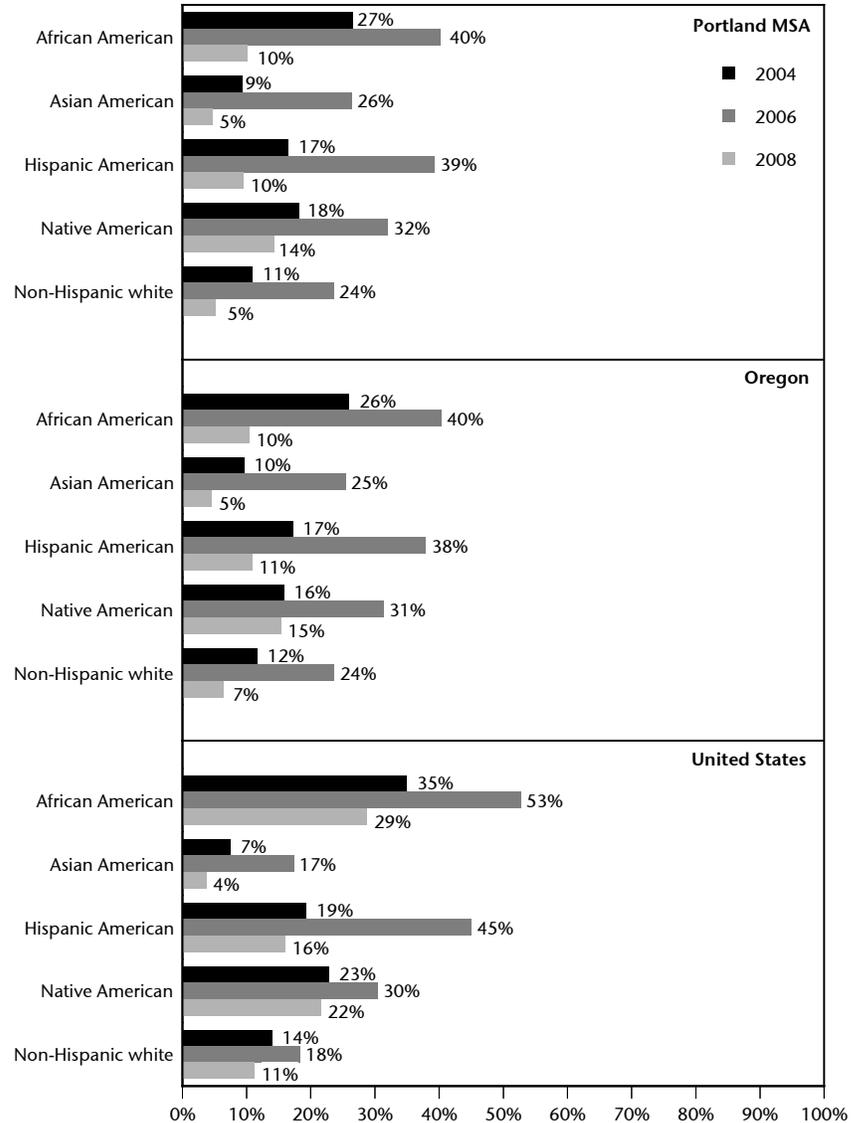
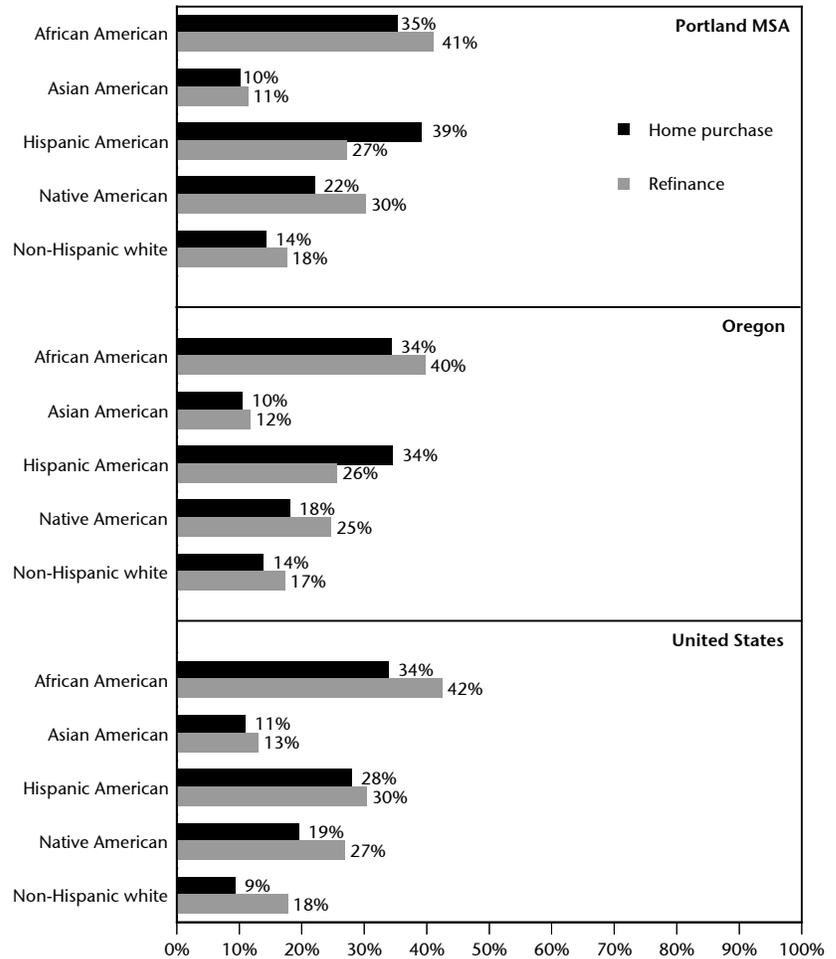


Figure G-7 shows the percent of loans issued by subprime lenders (as identified by the HUD list) in the Portland MSA, Oregon and the U.S. in 2004. Based on this approach, African American, Hispanic American and Native American borrowers in the Portland MSA were more likely to obtain home purchase and refinancing loans from subprime lenders compared to non-Hispanic whites. A smaller proportion of Asian Americans than non-Hispanic whites received loans from a subprime lender in 2004. These patterns are broadly consistent with those found when identifying subprime loans by rate-spread.

In Oregon and the United States, African American, Hispanic American and Native American borrowers were more likely than non-Hispanic whites to receive home purchase and refinance loans from a subprime lender in 2004. In contrast, subprime lending rates to Asian Americans were similar to or less than the rates for non-Hispanic whites.

Figure G-7.
Percent of conventional home purchase and refinancing loans from subprime lenders, 2004

Note: Subprime loans are identified as those loans issued by lenders on the 2004 HUD Subprime Lender list.
 Source: FFIEC HMDA data 2004 and 2004 HUD Subprime Lender list.



In sum, BBC’s analysis of HMDA data on subprime lending reveals the following:

- Compared to non-Hispanic whites, a larger share of loans issued to African Americans and Hispanic Americans were subprime in the Portland MSA, in Oregon and in the United States. This is true for both home purchase and refinancing loans and when examining subprime lending using different methods.
- In the Portland MSA, a larger share of Native American borrowers than non-Hispanic white borrowers received subprime loans when applying for refinancing loans in 2004, 2006 and 2008. Native Americans were also generally more likely to receive subprime loans when applying for home purchase loans (except in 2008).
- Asian Americans in Portland were generally no more likely than non-Hispanic whites to be issued subprime loans.

Some evidence suggests that lenders seek out and offer these high-cost loans to individuals who likely will not be able to pay off the loan, a form of “predatory lending.”²⁴ Furthermore, some research has found that many recipients of subprime loans could have qualified for prime loans.²⁵

According to previous studies on subprime lending, predatory lenders have disproportionately targeted minorities. A 2001 HUD study using 1998 HMDA data found that subprime loans were disproportionately concentrated in black neighborhoods compared to white neighborhoods even after controlling for income.²⁶ For example, borrowers in upper-income black neighborhoods were six times more likely to refinance with a subprime loan than borrowers in upper-income white neighborhoods.

Historically, differences in types of loans awarded to minorities have also been attributed to steering by real estate agents, who serve as an information filter between buyers and sellers.²⁷ Some studies claim that real estate brokers provide different levels of assistance and different information on loans to minorities and non-minorities.²⁸ This “steering” can shape the perception of minority borrowers with respect to the availability of loans.

Lessons from 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.²⁹ Much of the blame has been placed on risky practices in the mortgage industry including substantial increases in subprime lending.

As discussed above, subprime mortgages increased at an extraordinary rate between the mid-1990s and mid-2000s. These high-cost loans increased from 8 percent of originations in 2003 to 20 percent in both 2005 and 2006.³⁰ In 2005, subprime loans represented roughly 14 percent of all loans originated in the Portland MSA.³¹ The preponderance of subprime lending is important as households repaying subprime loans have a higher likelihood of delinquency or foreclosure. A 2008 study released from the Federal Reserve Bank of Boston found, “homeownerships that begin with a

²⁴ 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.”

²⁵ 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*.

²⁶ Department of Housing and Urban Development (HUD) and the Department of Treasury. 2001.

²⁷ Kantor, Amy C. and John D. Nystuen. 1982. “De Facto Redlining a Geographic View.” *Economic Geography*. 4:309-328.

²⁸ Yinger. 1995. *Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination*. 78–79.

²⁹ Joint Center for Housing Studies of Harvard University. 2008. “The State of the Nation’s Housing.”

³⁰ Joint Center for Housing Studies of Harvard University. 2008. “The State of the Nation’s Housing.”

³¹ Mayer, Chris and Karen Perce. “Subprime Mortgage: Who, Where and to Whom?” *Division of Research and Statistics and Monetary Affairs*. Available online at: “<http://www.federalreserve.gov/Pubs/FEDS/2008/200829/200829abs.html>.”

subprime purchase mortgage end up in foreclosure almost 20 percent of the time, or more than 6 times as often as experiences that begin with prime purchase mortgages.”³²

Although Oregon has not suffered to the same extent as states such as California and Nevada in terms of foreclosures and falling home values, the state has nevertheless been affected by the change in housing market conditions. In Oregon, there were about 34,000 properties with foreclosure filings in 2009, representing one in every 47 housing units.³³ Oregon’s foreclosure rate ranked 11th out of 50 states and Washington D.C. in 2009. As of September 2009, the proportion of residential properties in Oregon with negative equity (a mortgage worth more than the value of the home) was 13.9 percent, considerably below the national average of 22.6 percent.³⁴ However, due to higher rates of subprime mortgages, it is likely that minority homeowners have been disproportionately affected in terms of foreclosures and loss of home equity.

Such problems in the housing industry substantially reduce the ability of would-be borrowers to secure capital through home mortgages for starting or expanding small businesses. This issue was 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 in 2008:

- 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.”³⁵
- 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 Survey of Small Business Finances (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 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.”³⁶

Federal Reserve Chairman Ben Bernanke recognized the reality of these concerns in a speech titled “Restoring the Flow of Credit to Small Businesses” on July 12, 2010.³⁷ Bernanke indicated that small

³² Gerardi, Shapiro, and P. Willen. 2008. “Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure. *Federal Reserve Bank of Boston*.

³³ RealtyTrac. 2009 U.S. Foreclosure Market Report.™ Available online at <http://www.realtytrac.com>.

³⁴ First American CoreLogic. 2009. First American CoreLogic’s Negative Equity Data Report.

³⁵ 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.”

³⁶ 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*.

³⁷ 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*.

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 businesses³⁸ in late-2009 to investigate how the recent recession has impacted access to capital.³⁹ 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.⁴⁰

Current 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, particularly for homeowners with subprime loans, reflect shrinking capital that was initially available through these loans. These consequences are likely to have a disproportionate impact on minorities in terms of both homeownership and securing capital for business.

Redlining. Redlining refers to mortgage lending discrimination against geographic areas associated with high lender risk. These areas are often racially determined, focused in African American or mixed race neighborhoods.⁴¹ This practice can exacerbate problems in already poor neighborhoods.⁴²

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 the individual characteristics of the borrower.⁴³ 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, all of which can prevent minorities from starting

³⁸ 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.

³⁹ National Federation of Independent Business (NFIB). 2010. Small Business Credit in a Deep Recession.

⁴⁰ Upside-down is defined as a mortgage that is worth more than the appraised value of the house.

⁴¹ 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.

⁴² Ladd, Helen F. 1998. “Evidence on Discrimination in Mortgage Lending.” *The Journal of Economic Perspectives*. 12:41-62.

⁴³ 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.

businesses.⁴⁴ Locations of financial institutions are important as local banking sectors often finance local business.⁴⁵ Redlining practices would limit this capital resource to minorities.

Steering by real estate agents. A number of researchers have found that discrimination by real estate agents sometimes contributes to residential segregation of minorities. Such practices include “steering” of prospective homebuyers toward particular neighborhoods based on their race or ethnicity (a practice that has been prohibited by law for many decades). A recent study found such practices in cities throughout the country.⁴⁶

Gender discrimination in mortgage lending. Relatively little information is available on sex-based discrimination in mortgage lending markets. Historically, lending practices overtly discriminated against women by requiring information on marital and childbearing status. Risk associated with women of childbearing age and unmarried women resulted in “income discounting,” limiting the availability of loans to women.⁴⁷

The Equal Credit Opportunity Act (ECOA) of 1973 suspended these discriminatory lending practices, but certain barriers have continued in spite of such laws. For example, there is some evidence that lenders have under-appraised property for female borrowers, thereby restricting the amount of capital they received.⁴⁸

Access to Business Capital

Barriers to capital markets can have significant impact on small business formation and expansion. Several studies have found evidence that start-up capital is important for business profits, longevity and other outcomes:⁴⁹

- The amount of start-up capital is positively associated with small business sales and other outcomes;⁵⁰
- Limited access to capital has restricted the growth of African American-owned businesses;⁵¹ and

⁴⁴ Yinger, John. 1995. “Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination.” Russell Sage Foundation. New York. 78-79.

⁴⁵ Holloway. 1998. “Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio.”

⁴⁶ 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.

⁴⁷ Card. 1980. “Women, Housing Access, and Mortgage Credit.”

⁴⁸ Ladd, Helen F. 1982. “Equal Credit Opportunity: Women and Mortgage Credit.” *The American Economic Review*. 72:166-170.

⁴⁹ For examples see Fairlie. 2006. “Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited;” and Grown, Caren and Timothy Bates. 1991. “Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies.” Center for Economic Studies, U.S. Bureau of the Census.

⁵⁰ 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.”

⁵¹ Grown. 1991. “Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies.”

- Weak financial capital was identified as a significant reason that more African American-owned firms than non-Hispanic white-owned firms closed over a four-year period.⁵²

Bank loans are one of the largest sources of debt for small businesses.⁵³ Discrimination in the application and approval processes of these loans and limited access to other credit resources could be detrimental to the success of MBEs and WBEs. Previous investigations have addressed race/ethnicity and gender discrimination in capital markets by evaluating the following:

- Loan denial rates;
- Loan values;
- Interest rates;
- Individual assumptions 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 Surveys of Small Business Finances (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 firms by Census Division, rather than city, county or state. Oregon resides in the Pacific Census Division (referred to below as the Pacific region) along with Alaska, Washington, California and Hawaii.

Loan denial rates. Figure G-8 shows loan denial rates from the 1998 and 2003 SSBFs for the Pacific region and the United States. The 1998 SSBF data for the nation reveal the following:

- African American-owned businesses experienced higher rates of denial compared to all other racial and ethnic groups;
- African American-, Hispanic American- and Asian American-owned firms had a loan denial rate considerably above that of non-Hispanic white male-owned firms (in each case a statistically significant difference); and
- A larger proportion of women-owned firms than male-owned firms were denied business loans.

⁵² Grown. 1991. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies."

⁵³ 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 African 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*.

Measured against rates of loan denial for non-Hispanic white- and male-owned firms in 2003, loan denial rates were higher for minority- and women-owned firms in the United States. The loan denial rate for African American-owned firms in 2003 was substantially higher than rates for other groups (51%).

Loan denial statistics on individual minority groups in the Pacific region are not reported in Figure G-8 due to small sample sizes. However, 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. In contrast, according to the 2003 SSBF data, a smaller share of minority- and female-owned firms in the Pacific region were denied loans, compared to non-Hispanic white male-owned firms.

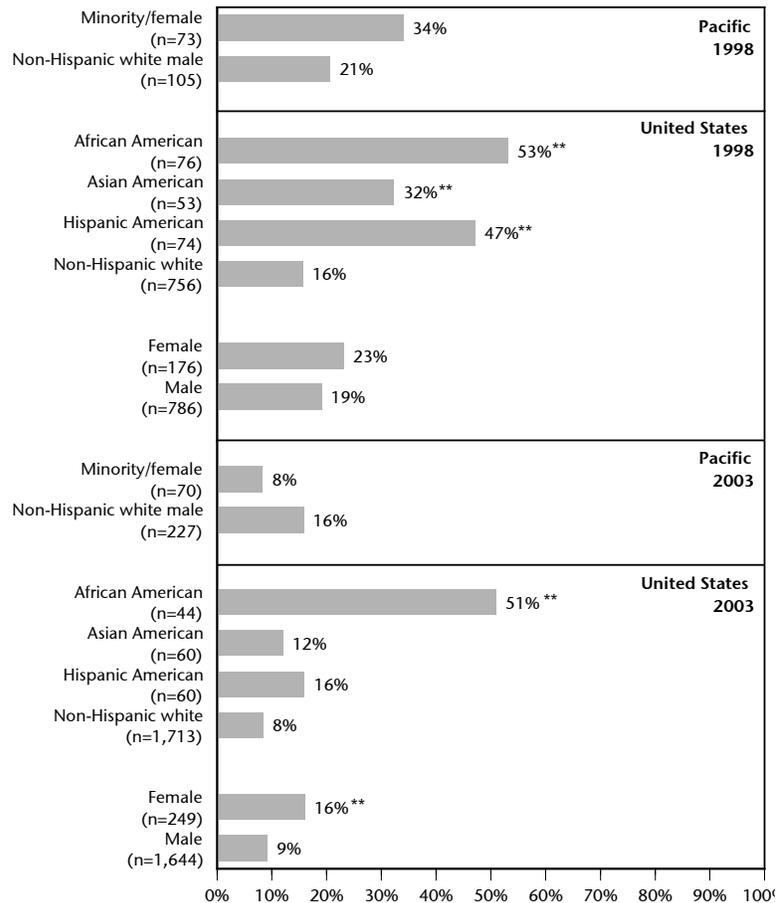
Figure G-8.
Business loan denial rates,
1998 and 2003

Note:

** Denotes that the difference in proportion from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 1998 and 2003 Survey of Small Business Finances.



Regression analyses of loan denial rates. A number of studies have investigated whether disparities in loan denial rates for different race/ethnicity and gender groups exist after controlling for other factors that affect loan approvals. Findings from these studies include:

- Commercial banks are less likely to loan to African American-owned firms than to non-Hispanic white-owned firms after controlling for other factors.⁵⁴

⁵⁴ 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.

- African American, Hispanic American and Asian American men are more likely to be denied a loan than non-Hispanic white men. However, African American borrowers are more likely to apply for a loan.⁵⁵
- Disparities in loan denial rates between African 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.⁵⁶
- The probability of loan denial decreases with greater personal wealth. However, controlling for personal wealth does not resolve the large differences in denial rates across African American-, Hispanic American-, Asian American-, and non-Hispanic white-owned firms. Specifically, information on personal wealth explained some differences for Hispanic- and Asian American-owned firms compared to non-Hispanic whites, but not for African American-owned firms.⁵⁷
- Loan denial rates are significantly higher for African American-owned firms than non-Hispanic white-owned firms in the presence of several other factors such as creditworthiness and other characteristics. This result is largely insensitive to specification of the model. Consistent evidence on loan denial rates and other indicators of discrimination in credit markets was not found for other minorities and women.⁵⁸
- Women-owned businesses are no less likely to apply for or to be approved for loans in comparison to firms owned by men.⁵⁹

BBC regression model for the 1998 SSBF. The study team conducted its own analysis of the 1998 SSBF by developing a model to explore the relationships between loan denial and the race/ethnicity and gender of firm ownership while controlling for other factors.⁶⁰ As discussed above, the extensive body of literature on business loan denials provides the theoretical basis for the regression model. Many studies have used probit econometric models to investigate the effects of various owner, firm and loan characteristics — including the race and gender of the ownership — on the likelihood of being denied a loan. The standard model includes three general categories of variables relating to:

- The owner’s demographic characteristics (including race and gender), credit and resources;

⁵⁵ 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.

⁵⁶ Cavalluzzo, 2002. “Competition, Small Business Financing and Discrimination: Evidence from a New Survey.”

⁵⁷ Cavalluzzo, Ken and John Wolken. 2002. “Small Business Turndowns, Personal Wealth and Discrimination.” *FEDS Working Paper No. 2002-35*.

⁵⁸ 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.

⁵⁹ Coleman. 2002. “Characteristics and Borrowing Behavior of Small, Women-owned Firms: Evidence from the 1998 National Survey of Small Business Finances.”

⁶⁰ BBC performed the regression analysis using the 1998 SSBF — as opposed to the 2003 SSBF — to capitalize on oversampling of minority-owned businesses in the national dataset in 1998 (not done in 2003).

- The firm’s characteristics, credit and financial health; and
- The environment in which the firm and lender operate and characteristics of the loan.⁶¹

After excluding a small number of observations where the loan outcome was imputed, the national sample included 931 firms that had applied for a loan during the three years preceding the survey; the Pacific region included 171 such firms.

A large number of variables are used to control for differences in neutral factors described above. Variables are included to represent: the owner’s credit and resources (11 variables); the firm’s characteristics, credit and financial health (29 variables); and the environment in which the firm and lender operate including the type of loan for which the borrower applied (19 variables). Given the relatively small sample size and the large number of variables, the study team did not develop a model based on firms located in the Pacific region. Instead, all U.S. firms are included in the model and any Pacific region effects are estimated by including regional control variables — an approach commonly used in other studies that analyze these data.⁶² The regional variables include an indicator variable for firms located in the Pacific region and interaction variables that represent firms located in the region that are owned by minorities or women.

Figure G-9 presents the coefficients and t-statistics from the probit model predicting loan denials. The results from the model indicate that a number of neutral factors affect the probability of loan denial with statistical significance:

- Older business owners are more likely to be denied loans;
- Having a four-year degree lowers the probability of loan denial;
- 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;
- 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;
- 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;

⁶¹ 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*.

⁶² 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; National Economic Research Associates, Inc., 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*.

- Being in the construction or engineering industry increases the likelihood of loan denial;
- Firms in highly concentrated industry segments (as measured by the Herfindahl index) are more likely to be denied; and
- Business mortgage applications and vehicle and equipment loan applications are less likely to be denied than other types of business loans.

Figure G-9.
Likelihood of business loan denial (probit regression) in the U.S. in the 1998 SSBF,
Dependent variable: loan denial

Variable	Coefficient	t-statistic	Variable	Coefficient	t-statistic	Variable	Coefficient	t-statistic
Race/ethnicity and gender			Firm's characteristics, credit and financial health			Firm and lender environment and loan characteristics		
Constant	-5.504990	-4.26 **	D&B credit score = moderate risk	0.528255	1.05	Partnership	0.111897	0.32
African American	1.299680	4.82 **	D&B credit score = average risk	0.651411	1.29	S corporation	-0.172629	-0.74
Asian American	-0.016730	-0.04	D&B credit score = significant risk	0.334541	0.64	C corporation	-0.219942	-0.80
Hispanic American	0.937239	4.00 **	D&B credit score = high risk	0.390482	0.71	Construction industry	0.554675	2.10 **
Female	-0.215049	-1.11	Total employees	-0.001578	-0.50	Manufacturing industry	0.037434	0.13
Pacific region	0.041610	0.16	Percent of business owned by principal	-0.002877	-0.60	Transportation, communications and utilities industry	0.412689	0.91
African American in Pacific region	-0.938737	-1.54	Family-owned business	0.806077	2.54 **	Finance, insurance and real estate industries	-0.167462	-0.48
Asian American in Pacific region	0.516142	0.85	Firm purchased	-0.285351	-1.38	Engineering industry	0.621517	1.67 *
Hispanic American in Pacific region	-0.033862	-0.07	Firm inherited	0.174592	0.53	Other industry	0.247414	1.27
Female in Pacific region	0.554211	1.37	Firm age	-0.009864	-0.93	Herfindahl index = .10 to .18	2.034522	4.18 **
			Firm has checking account	0.257405	0.80	Herfindahl index = .18 or above	2.343574	4.72 **
			Firm has savings account	-0.203582	-1.16	Located in MSA	0.057633	0.31
			Firm has line of credit	-0.971326	-5.37 **	Sales market local only	0.115044	0.71
			Existing capital leases	-0.057004	-0.28	Loan amount	0.000000	-0.19
			Existing mortgage for business	-0.378937	-1.80 *	Capital lease application	-0.203963	-0.60
			Existing vehicle loans	-0.516237	-2.82 **	Business mortgage application	-0.706651	-2.51 **
			Existing equipment loans	-0.487929	-2.22 **	Vehicle loan application	-1.238039	-3.90 **
			Existing loans from stockholders	0.594402	2.84 **	Equipment loan application	-0.812488	-2.82 **
			Other existing loans	-0.065957	-0.32	Loan for other purposes	-0.335181	-1.62
			Firm used trade credit in past year	-0.225135	-1.38			
			Log of total sales in prior year	0.000724	0.01			
			Negative sales in prior year	0.425990	0.50			
			Log of cost of doing business in prior year	0.013326	0.25			
			Log of total assets	0.029816	0.41			
			Negative total assets	-0.496365	-0.57			
			Log of total equity	0.103717	1.36			
			Negative total equity	1.165334	1.49			
			Firm bankruptcy in past 7 years	0.898550	1.69 *			
			Firm delinquency in business transactions	1.156361	6.25 **			
Owner's characteristics, credit and resources								
Age	0.014019	1.65 *						
Owner experience	0.005169	0.48						
Less than high school education	0.429916	1.20						
Some college	-0.116842	-0.55						
Four-year degree	-0.505153	-2.24 **						
Advanced degree	-0.377032	-1.50						
Log of home equity	-0.070577	-3.61 **						
Bankruptcy in past 7 years	1.176523	2.20 **						
Judgement against in past 3 years	1.005242	3.31 **						
Log of net worth excluding home	0.006526	0.11						
Owner has negative net worth	-0.219202	-0.31						

Note: * Statistically significant at 90% confidence level.
 ** Statistically significant at 95% confidence level.

There were insufficient observations to include separate variables for Native Americans at the national level or Pacific region level.

Source: BBC Research & Consulting analysis of 1998 SSBF data.

Even after controlling for neutral influences, firms owned by African Americans and Hispanic Americans were more likely to have their loans denied than other firms (both statistically significant differences). The indicator variable for the Pacific region and interaction terms for minority- and women business owners in the Pacific region are not statistically significant. This result suggests that the probabilities of loan denial for minority- and women-owned firms located in the Pacific region are not statistically different from those in the U.S. as a whole.

The study team simulated loan approval rates for those minority groups with statistically significant disparities (African Americans and Hispanic Americans) and compared observed approval rates with these simulated rates.⁶³ The study team simulated the rates by inputting observed variables for those minorities into a probit model developed for non-Hispanic white-owned firms, one that included the effect of operating in the Pacific region. Figure G-10 shows these simulated loan approval rates in comparison to actual approval rates obtained from the 1998 SSBF data.

Figure G-10.
Comparison of actual loan approval rates to simulated loan approval rates, 1998

Group	Loan approval rates		Disparity index (100 = parity)
	Actual	Benchmark	
African American	46.4%	76.8%	60
Hispanic American	53.7%	75.9%	71

Note: Actual approval rates presented here and denial rates in Figure G-7 do not sum to 100% because some observations were dropped in the probit regression.

Source: BBC Research & Consulting analysis of 1998 SSBF data.

Based on 1998 SSBF data, the observed loan approval rate was 46 percent for African American-owned firms that applied for loans. Model results show that African American-owned firms would have an approval rate of about 77 percent if they were approved at the same rate as similarly situated firms owned by non-Hispanic whites. In this same environment, about 76 percent of Hispanic American-owned firms would be approved for loans; however, the actual loan approval rate for Hispanic American-owned firms was 54 percent.

Other researchers' analyses of the 2003 SSBF. Summary statistics from the 2003 SSBF on loan denial rates by race and ethnicity are presented at the beginning of this section. Although these data are the most recent information collected from small businesses, the study team selected the data from the 1998 SSBF to conduct the econometric analysis to capitalize on the over-sampling of minority-owned business, a method that was not used when collecting the 2003 SSBF data.⁶⁴

However, other recent studies elected to incorporate the 2003 SSBF into the analysis, while at the same time acknowledging the drawbacks of these data. In a study prepared for the City of Austin, Texas, NERA Economic Consulting (NERA) presented results from models using the 1993, 1998 and 2003 SSBFs, while focusing the analysis on the 1993 data. NERA investigated factors

⁶³ The approval rate is equal to one minus the denial rate.

⁶⁴ In the 1998 data, 7.3 percent of the firms surveyed were owned by Hispanic Americans, however in 2003 that number dropped to 4.0 percent. Numbers dropped from 7.7 percent to 2.8 percent and 5.7 percent to 4.2 percent for African American-owned and Asian American-owned firms, respectively. This decrease in minority samples impacts the precision of econometric analysis used to investigate disparities in loan denial rates for minority groups.

influencing loan denial rates using a probit econometric model. At a national level, their results using the 1998 SSBF are consistent with BBC’s findings. When using the 2003 SSBF data, however, they find that loan denial rates for Hispanic-owned firms are not significantly different from rates for non-Hispanic white-owned firms.⁶⁵

CRA International (CRA) also 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 reveals possible disparities in loan denial by race/ethnicity and gender using a probit econometric model and controlling for other factors. Figure G-11 shows a summary of the findings.

Figure G-11.
Likelihood of loan denial:
Findings from 2007 CRA study
using 1998 and 2003 SSBF data

	Statistical significance	Likelihood of loan denial
African American	Yes	Higher
Asian American	Yes	Higher
Hispanic American	Yes	Higher
Female	No	N/A

Note:

N/A: not applicable.

The model specification included controls for owner characteristics, business characteristics, geographic characteristics, business performance, personal financial history, business financial history, use of financial services and loan application characteristics.

While the study does not find differences in the likelihood of loan denial for female-owned business at a national level, the results indicate that female-owned firms have a lower likelihood of denial in the Pacific region.

Source:

CRA International. 2007. “Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization.” Prepared for Santa Clara Valley Transportation Authority.

Consistent with BBC’s findings, the CRA results indicate that African American- and Hispanic-owned firms have higher probabilities of loan denial. The study also finds that Asian-owned firms are more likely to be denied loans. CRA’s results indicate that female-owned firms in the Pacific region are less likely to be denied loans.⁶⁶

Applying for loans. Fear of loan denial can be a barrier to capital markets as it prevents small businesses from applying for needed loans and thus can help explain differences in business outcomes. An examination of this fear provides insight into minority business owners’ perceptions of the small business lending market. Using data from the 1998 and 2003 SSBF, Figure G-12 shows the proportion of firms that reported needing credit but did not apply for fear of denial.

In 1998 and 2003, minority- and women-owned firms were more likely than non-Hispanic white male-owned firms to forgo applying for loans due to fear of denial, both in the Pacific region and nationally. In 1998, for example, about 31 percent of minority- and women-owned firms in the Pacific region indicated that they had not applied for loans for this reason, compared to 25 percent of non-Hispanic white male-owned firms.

⁶⁵ National Economic Research Associates, Inc., 2008. “Race, Sex, and Business Enterprise: Evidence from the City of Austin.” *Prepared for the City of Austin, Texas.*

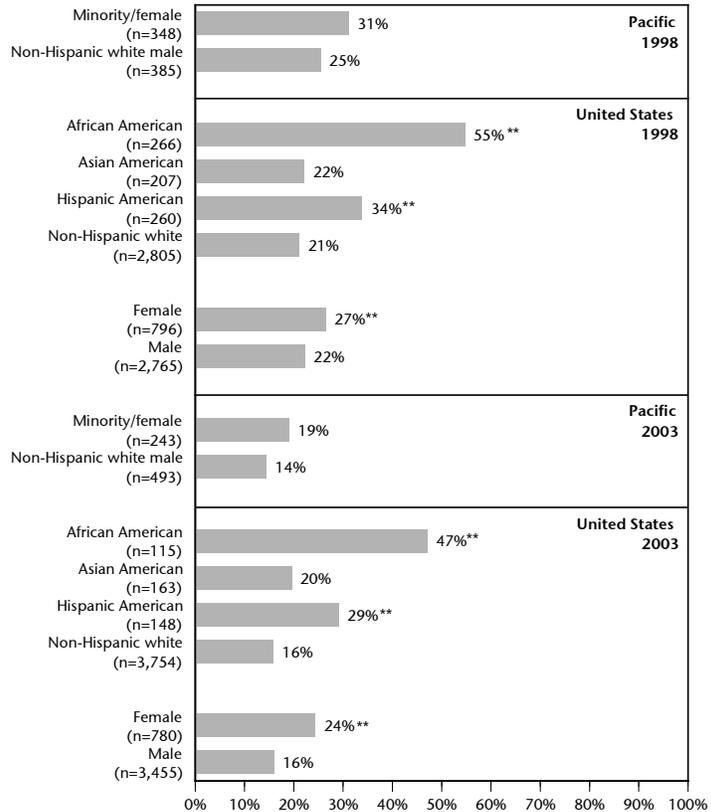
⁶⁶ CRA International. 2007. “Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization.” *Prepared for Santa Clara Valley Transportation Authority.*

At the national level in 1998 and 2003, disparities were greatest for African American- and Hispanic American-owned business.

Figure G-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:
 BBC Research & Consulting from 1998 and 2003 Survey of Small Business Finances.



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 controlling for other factors. As explained above, CRA based their analysis on combined data from the 1998 and 2003 SSBFs. Figure G-13 presents a summary of their findings.

Figure G-13.
Fear of loan denial: Findings from 2007 CRA study using 1998 and 2003 SSBF data

Note:
 N/A: not applicable.
 The model specification included controls for owner characteristics, business characteristics, geographic characteristics, personal financial history, business financial history and use of financial services.

Source:
 CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. Prepared for Santa Clara Valley Transportation Authority.

	Statistical significance	Likelihood of not applying for a loan due to fear of denial
African American	Yes	Higher
Asian American	No	N/A
Hispanic American	Yes	Higher
Female	No	N/A

Results from CRA's model indicate that African American- and Hispanic American-owned businesses are more likely to not apply out of fear of being denied. In addition, results for firms located in the Pacific region do not differ significantly from national results.⁶⁷

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. Controlling for these factors can help in determining whether race and ethnicity explain this fear of loan denial. Findings indicate:

- African American- and Hispanic American-owners are significantly less likely to apply for loans.⁶⁸
- After controlling for educational attainment, there were no significant differences in loan application rates between non-Hispanic white, African American, Hispanic American and Asian American men.⁶⁹
- African American-owned firms are more likely than other firms to report being seriously concerned with credit markets and are less likely to apply for credit for fear of denial.⁷⁰

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 awarded by racial and ethnic group are presented in Figure G-14. Comparing loan amounts for non-Hispanic white male-owned firms to minority- and women-owned firms indicates the following:

- In both 1998 and 2003, minority- and women-owned firms in the Pacific region received loans that amounted to less, on average, than loan amounts awarded to non-Hispanic white male-owned firms.
- In 2003, national results show that minority- and women-owned firms received loans that were on average less than half the average loan amount received by non-Hispanic white male-owned firms (statistically significant difference). However, the 1998 data suggests that minority- and women-owned firms in the U.S. received loans with slightly higher value, on average, than those received by non-Hispanic white males.

⁶⁷ CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. *Prepared for Santa Clara Valley Transportation Authority.*

⁶⁸ Cavalluzzo, 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

⁶⁹ 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.

⁷⁰ Blanchflower et al., 2003. Discrimination in the Small Business Credit Market.

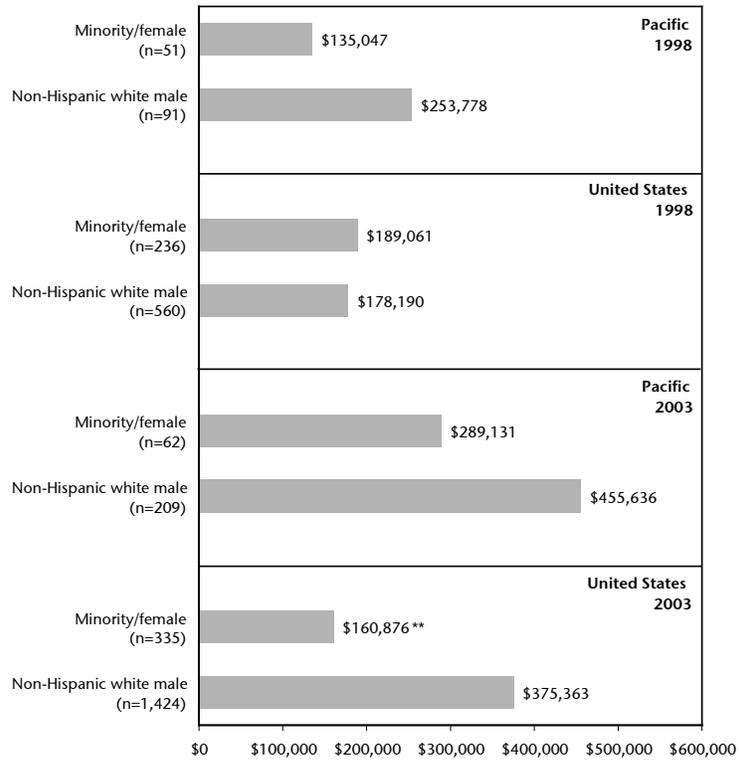
Figure G-14.
Mean value of approved
business loans, 1998
and 2003

Note:

** Denotes that the difference in means from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 1998 and 2003 Survey of Small Business Finances.



Previous national studies have found that African American-owned firms received substantially lower loan amounts than their non-Hispanic white counterparts with similar characteristics. Examination of construction companies in the United States revealed that African American-owned firms received smaller loans than firms with otherwise identical traits.⁷¹

Interest rates. Based on 1998 and 2003 SSBF data, Figure G-15 presents the average interest rates on commercial loans by the race and ethnicity of firm ownership. In 1998, on average, minority- and women-owned firms in the Pacific region received loans with similar interest rates compared to loans received by non-Hispanic white male-owned firms. However, in 2003, the average interest rate on loans obtained by minority- and women-owned firms was about 1.6 percentage points higher than the mean interest rate for non-Hispanic white-owned firms.

The overall pattern in the Pacific region was similar to that found in the United States in both years examined by the study team. In 2003 but not in 1998, minority- and female-owned firms received loans with higher interest compared to non-Hispanic white-owned firms.

⁷¹ Grown. 1991. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies."

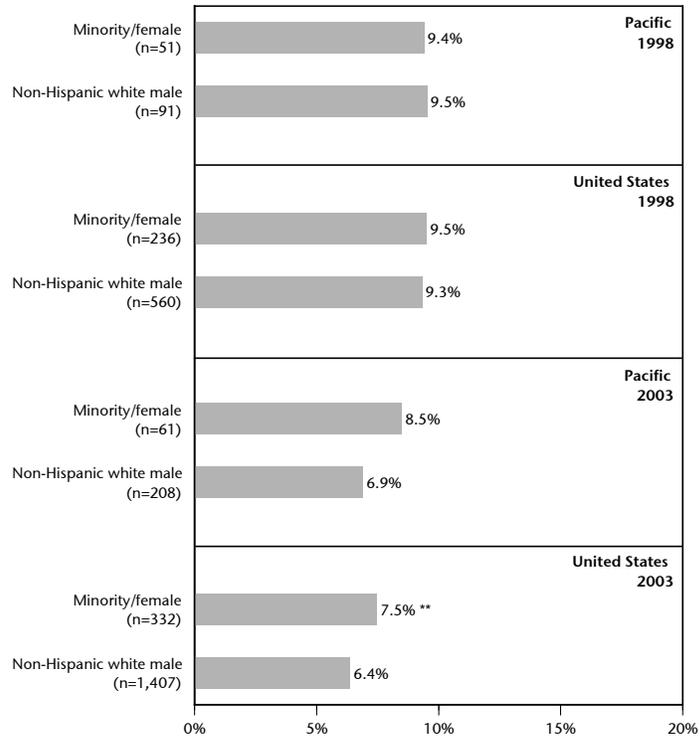
Figure G-15.
Mean interest rate for
business loans, 1998 and 2003

Note:

** Denotes that the difference in means from non-Hispanic white male-owned firms is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 1998 and 2003 Survey of Small Business Finances.



Previous studies have investigated differences in interest rates across race/ethnicity and gender while controlling for factors such as individual credit history, firm credit history and Dun and Bradstreet credit scores. Findings from these studies include:

- Hispanic-owned firms had significantly higher interest rates for lines of credit in places with less credit market competition. However, no evidence was found that African American- or female-owned firms received different rates.⁷²
- Among a sample of firms without past credit problems, African American-owned firms paid significantly higher interest rates on approved loans.⁷³

The CRA study investigated differences in interest rates by race/ethnicity and gender using a linear econometric model that controlled for other factors that may impact interest rates. Results are summarized in Figure G-16.

⁷² Cavalluzzo. 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

⁷³ Blanchflower. 2003. "Discrimination in the Small Business Credit Market."

Figure G-16.
Differences in interest rates:
Findings from 2007 CRA study using 1998 and
2003 SSBF data

Note:

N/A: not applicable.

The model specification included controls for owner characteristics, business characteristics, geographic characteristics, business performance, personal financial history, business financial history and use of financial services.

Source:

CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. Prepared for Santa Clara Valley Transportation Authority.

	Statistical significance	Comparison of interest rates
African American	Yes	Higher
Asian American	No	N/A
Hispanic American	Yes	Higher
Female	No	N/A

On a national level, African American- and Hispanic American-owned firms pay a higher interest rate than non-minority-owned firms, even after controlling for other factors. CRA did not find any significant differences for firms located in the Pacific region.⁷⁴

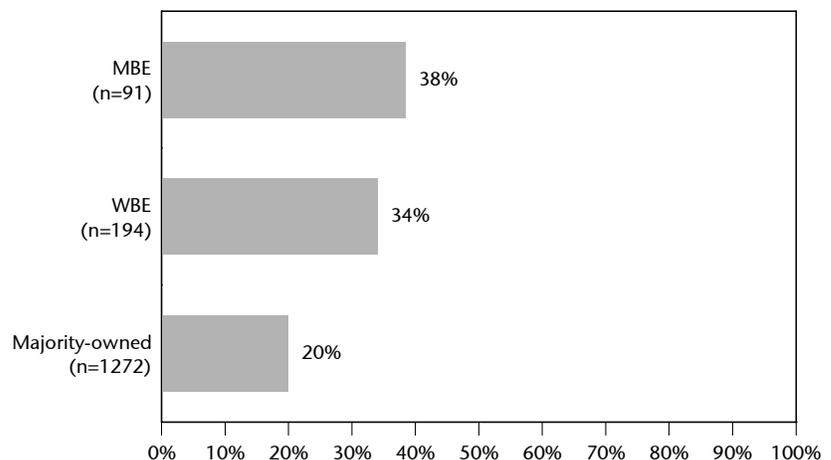
Results from BBC availability interviews. At the close of the 2010 availability interviews with study area businesses, BBC asked, "Finally, we're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences within the past five years as we ask you these questions." The first question was, "Has your company experienced any difficulties in obtaining lines of credit or loans?"

Access to lines of credit and loans. As shown in Figure G-17, about 40 percent of MBEs and one-third of WBEs reported difficulties obtaining lines of credit or loans. Fewer majority-owned firms reported that they had experienced difficulties obtaining lines of credit or loans.

Figure G-17.
Has your company
experienced any difficulties in
obtaining lines of credit or
loans?

Source:

BBC Research & Consulting from 2010 Availability Interviews.

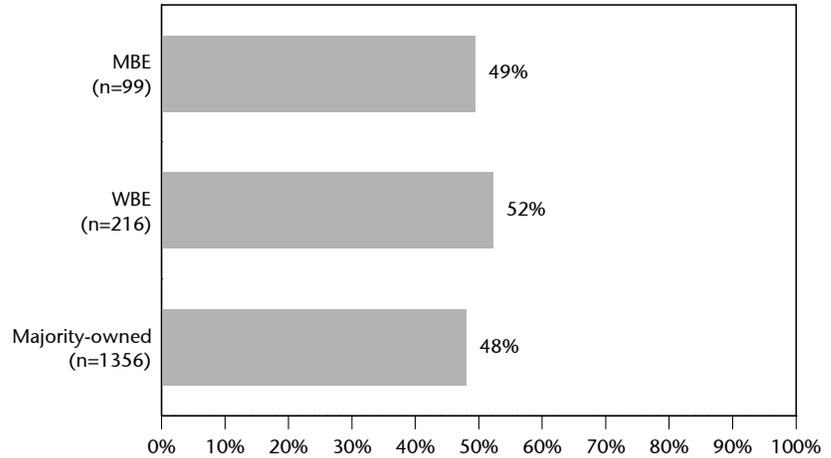


⁷⁴ CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. Prepared for Santa Clara Valley Transportation Authority.

Receiving timely payment. Need for business credit is, in part, linked to whether firms are paid for their work in a timely manner. In the availability interviews, BBC asked, “Has your company had any difficulties receiving payment in a timely manner?” Nearly half of all respondents indicated that they had experienced difficulties receiving payments in a timely manner.

Figure G-18.
Has your company experienced any difficulties receiving payment in a timely manner?

Source:
 BBC Research & Consulting from 2010
 Availability Interviews.



Other factors affecting capital markets. Ethnic banking sectors may also affect the availability of loans to different minority groups. For example, one study found strength in the ethnic banking sector influences credit accessibility in ethnic communities in Los Angeles. A strong Asian American bank sector helped Asian American communities transition to successful business environments, and a lack thereof in African American communities could hinder development of African American businesses.⁷⁵

Bonding and Insurance

Bonding is closely related to access to capital. Some national studies have identified barriers regarding MBE/WBEs and access to surety bonds for public construction projects.⁷⁶ 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.

Bonding. To research whether bonding represented a barrier for Portland area businesses, BBC asked firms completing availability interviews:

- Has your company obtained or tried to obtain a bond for a project?
- [and if so] Has your company had any difficulties obtaining bonds needed for a project?

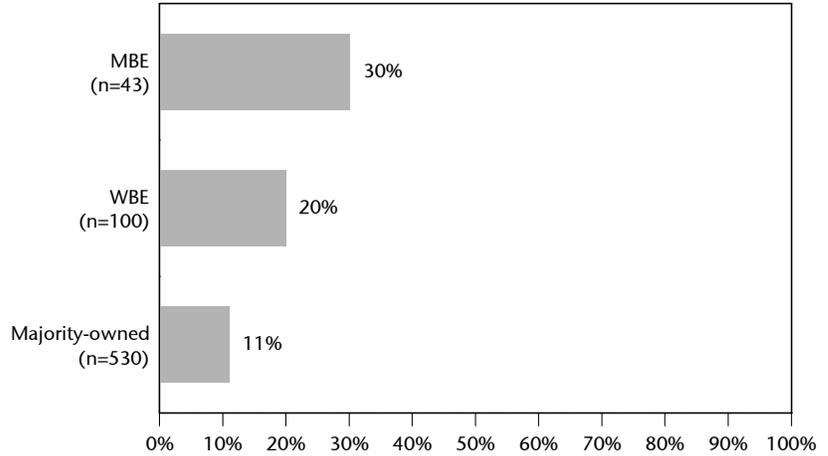
⁷⁵ Dymski, Gary and Lisa Mohanty. 1999. “Credit and Banking Structure: Asian and African-American Experience in Los Angeles.” *The American Economic Review*. 89:362-366.

⁷⁶ 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.

Among firms reporting that they had obtained or tried to obtain a bond, 30 percent of MBEs indicated difficulties obtaining bonds needed for a project. A somewhat smaller share of WBEs (20%) reported difficulties. Only 11 percent of majority-owned firms that had obtained or tried to obtain a bond reported difficulties. Figure G-19 presents these results from the 2010 availability interviews.

Figure G-19.
Has your company had any difficulties obtaining bonds needed for a project?

Source:
 BBC Research & Consulting from 2010
 Availability Interviews.

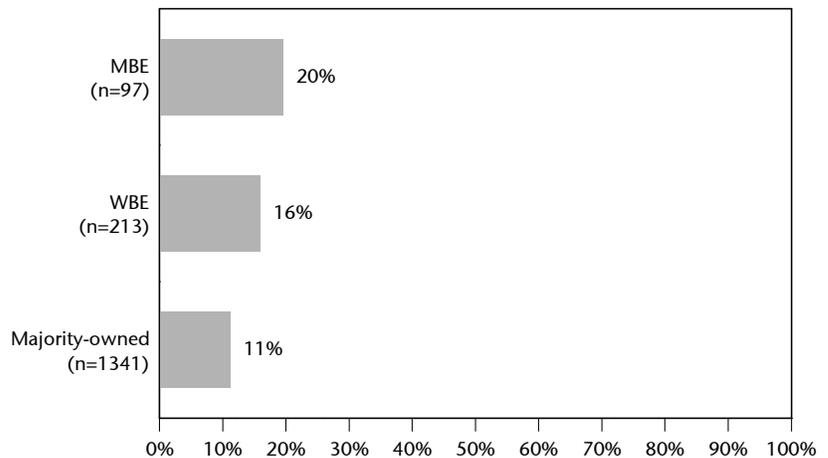


The in-depth interviews with businesses in the Portland MSA, completed as part of this disparity study also identified bonding as a major barrier for smaller construction firms (see Appendix J).

Insurance. BBC also examined whether minority- and women-owned firms were more likely than majority-owned firms within the study area to report that insurance requirements represented a barrier to bidding. About one-in-five MBEs and 16 percent of WBEs interviewed reported such difficulties. Fewer majority-owned firms indicated that insurance requirements presented a barrier to bidding on projects.

Figure F-20.
Have any insurance requirements on projects presented a barrier to bidding?

Source:
 BBC Research & Consulting from 2010
 Availability Interviews.



Summary of Analysis of Access to Capital for Business Formation and Success

There is evidence that minorities and women continue to face certain disadvantages in accessing capital necessary to start and expand businesses, based upon analysis of 2000 and 2006-2008 Census Bureau data; 2006 and 2008 HMDA data; and the 1998 and 2003 SSBF data.

- Home equity is an important source of funds for business start-up and growth. In the Portland MSA, some minority groups were particularly poorly situated to use homeownership as means of acquiring capital. Compared to non-Hispanic whites, fewer African Americans, Hispanic Americans and Native Americans own homes, and those who do own homes tend to have lower home values.
- Asian-Pacific American and Subcontinent Asian Americans also have relatively low homeownership rates in the Portland MSA. Asian-Pacific Americans (but not Subcontinent Asian Americans) generally own homes of lesser value compared to non-Hispanic white-owned homes.
- Larger shares of African Americans, Asian Americans and Hispanic Americans than non-minorities applying for home mortgages were denied loans in the Portland MSA.
- African American and Hispanic American mortgage borrowers are more likely to receive subprime loans in the Portland MSA. Native Americans are more likely to receive subprime refinancing loans.
- Minority- and women-owned firms in the Pacific region are more likely to forgo applying for loans due to fear of denial.
- Based on a regression analysis using 1998 SSBF data, African American and Hispanic American business owners are more likely to be denied a loan in the U.S., even after controlling for neutral factors.
- Among Portland area firms completing availability interviews as part of this study, minority- and women-owned firms were far more likely to report difficulties obtaining a line of credit or loans than were majority-owned firms.
- Among firms completing availability interviews and reporting that they had obtained or tried to obtain a bond, MBEs and WBEs were far more likely than majority-owned firms to indicate difficulties obtaining a bond. MBEs and WBEs were also more likely to report difficulties obtaining insurance.