

**BLACK AND WHITE DISPARITIES IN SUBPRIME
MORTGAGE REFINANCE LENDING**

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ABSTRACT

This paper examines patterns in Home Mortgage Disclosure Act (HMDA) data in an effort to understand the types of neighborhoods with high concentrations of subprime refinance lending. The HMDA data clearly demonstrate the growth in subprime refinance lending and its disproportionate impact on low-income and predominantly black neighborhoods throughout the nation. Since home equity is typically the main source of wealth for borrowers in low-income and minority neighborhoods, it is essential that creditworthy borrowers in these neighborhoods have access to lower cost prime credit and weaker credit borrowers in these neighborhoods have access to subprime credit that is priced appropriately to their credit circumstances.

Black and White Disparities in Subprime Mortgage Refinance Lending¹

I. Introduction

Over the last decade, subprime mortgage lending has become an important component of the overall mortgage market. Subprime mortgage lending increased from \$90 billion in 1996 to over \$173 billion in 2001 and accounted for 8.3 percent of the overall mortgage market in 2001.² (See Figure 1.³) Subprime mortgage lending serves a critical role in the nation's economy by providing loans to borrowers who do not meet the credit standards for borrowers in the prime market. These borrowers may have blemishes in their credit record, insufficient credit history, or non-traditional credit sources.⁴ Subprime lending allows such borrowers to access credit that they could not otherwise obtain in the prime credit market.

Metropolitan area analyses of subprime lending, however, have shown that subprime lending is disproportionately concentrated in low-income and minority neighborhoods, particularly black neighborhoods, which may suggest that creditworthy borrowers in these neighborhoods pay more for credit than borrowers in other neighborhoods.⁵ Furthermore, because of the concentration of subprime lending in low-income and black neighborhoods, there has been a growing concern that borrowers in these neighborhoods are vulnerable to a subset of subprime lenders, who engage in abusive lending practices, strip borrowers' home equity, and place them at increased risk of foreclosure.

¹ The author appreciates Harold L. Bunce for advice and for editing several drafts of the paper. Errors in the paper belong to the author.

² Inside Mortgage Finance produced these estimates of subprime mortgage activity. See "Household Leads Lenders to a Banner Origination Year in 2001." Inside B&C Lending. February 11, 2002; and "Mortgage Originations Soared to \$2.1 Trillion In 2001, Inside Mortgage Finance Estimates." Inside Mortgage Finance. January 25, 2002. The subprime mortgage share declined in 2001 because of a lower interest rate environment that led to an increase in all refinances.

³ See Table B.1 in Appendix B for additional information.

⁴ Prime credit is also referred to as "A" credit. Subprime credit includes borrowers with slight blemishes in their credit histories ("A-") as well as borrowers with more serious credit problems ("B-D").

⁵ The Woodstock Institute report, "Two Steps Back: The Dual Mortgage Market, Predatory Lending, and the Undoing of Community Development," analyzed the growth of subprime lending in Chicago's minority and low-income neighborhoods and found that prime lenders active in white and upper-income neighborhoods tend to be much less active in lower-income and minority neighborhoods – effectively leaving these neighborhoods to unregulated subprime lenders. See Daniel Immergluck and Marti Wiles. Two Steps Back: The Dual Mortgage Market, Predatory Lending, and the Undoing of Community Development. Chicago, IL. November 1999. An ACORN report reached the same conclusion in its analysis of mortgage lending in a number of metropolitan areas. See Separate and Unequal: Predatory Lending in America. ACORN. November 2001.

The concern over the impact of subprime mortgage lending on low-income and black neighborhoods is part of the ongoing debate over whether low-income and minority neighborhoods have adequate access to housing credit. This debate has traditionally focused on home purchase lending but has taken on a new dimension with the increase in home equity in low-income and black neighborhoods and the relatively recent explosion of subprime refinance lending.

In 2000, HUD conducted a number of studies using Home Mortgage Disclosure Act (HMDA) data that examined patterns in subprime lending in an effort to understand the types of neighborhoods with high concentrations of subprime lending.⁶ This study updates those earlier HUD studies by reexamining neighborhood patterns in subprime refinance lending using two additional years of HMDA data.⁷ The data continue to demonstrate the disproportionate concentration of such lending in the nation's low-income and minority neighborhoods.

Main Findings. There were three main findings from this paper:

- 1) **Subprime refinance lending accounted for larger shares of total refinance lending in low-income neighborhoods than in other neighborhoods.** In low-income neighborhoods (neighborhoods where income did not exceed 80 percent of the metropolitan area median) subprime refinance mortgages accounted for 36.3 percent of total refinance mortgages compared to 23.8 percent of total refinance lending nationwide.
- 2) **Subprime lenders were an even larger source of refinance credit in predominantly black neighborhoods.** Subprime refinance lending accounted for 44.8 percent of total refinance loans in neighborhoods where blacks comprised between 50 and 80 percent of the population and 53.1 percent of total 83,606 refinance loans in neighborhoods where blacks comprised at least 80 percent of the population.
- 3) **Borrowers in upper-income black neighborhoods were more likely than borrowers in low-income black neighborhoods to use subprime refinance**

⁶ In 2000, HUD and Treasury formed a Task Force on Predatory Lending and held a series of forums on predatory lending in five cities. The HUD-Treasury Task Force published a report and also published reports that described subprime mortgage lending trends nationally and in the forum cities. See <http://www.huduser.org/publications/hsgfin/curbing.html> for the following publications: Curbing Predatory Home Mortgage Lending: A Joint Report. HUD and Treasury. June 2000; Unequal Burden: Income and Racial Disparities in Subprime Lending in America. HUD. April 2000; Unequal Burden in Atlanta: Income and Racial Disparities in Subprime Lending. HUD. April 2000; Unequal Burden in Los Angeles: Income and Racial Disparities in Subprime Lending. HUD. May 2000; Unequal Burden in New York: Income and Racial Disparities in Subprime Lending. HUD. May 2000; Unequal Burden in Baltimore: Income and Racial Disparities in Subprime Lending. HUD. May 2000; and Unequal Burden in Chicago: Income and Racial Disparities in Subprime Lending. HUD. May 2000.

⁷ Appendix A describes the data collected under the Home Mortgage Disclosure Act.

loans. Borrowers in low-income neighborhoods where blacks comprised at least 80 percent of the population were 1.5 times more likely in 2000 to refinance with a subprime loan than borrowers in low-income neighborhoods overall. Borrowers in upper income neighborhoods where blacks comprised at least 80 percent of the population were 2.9 times more likely to have subprime refinancing as borrowers in upper-income neighborhoods overall.

The outline of the paper is as follows. Section II presents a national picture of subprime refinance lending and describes the concentration of subprime lending in low-income and minority neighborhoods. Appendix C provides similar analyses for 27 individual metropolitan areas.⁸ Each individual metropolitan analysis includes data on the growth in subprime lending between 1995 and 2000 and 2000 subprime refinance shares by neighborhood income and minority composition and a map of the metropolitan area that depicts the concentration of subprime refinances in low-income and minority neighborhoods. The regression model presented in Section III relates the concentration of subprime refinance lending to neighborhood demographic indicators in addition to the neighborhood income and racial indicators and complements the descriptive discussion in Section II. Section IV concludes the paper.

II. Neighborhood Disparities in Subprime Refinance Lending

This section describes the overall increase in subprime refinance lending in the 1990s and the concentration of subprime refinance lending in low-income and minority neighborhoods using Home Mortgage Disclosure Act (HMDA) data.⁹ We focus on subprime refinance lending in this paper because it continues to account for the majority of total subprime (purchase and refinance) originations.¹⁰

A. Growth in Subprime Lending

In the 1990s, subprime mortgage lending became an important component of the overall refinance mortgage market. The number of subprime refinance mortgages reported under the Home Mortgage Disclosure Act (HMDA) increased over 150 percent from 239,509 loans in 1996 to 618,572 loans in 1998.¹¹ (See Figure 2.¹²) A higher

⁸ The 27 metropolitan areas accounted for 728,925 (or 36.5 percent) of the total 1,998,407 refinance mortgages and 184,290 (or 38.8 percent) of the total 475,583 subprime refinance mortgages.

⁹ We use the terms “neighborhood” and “census tract” interchangeably in this paper.

¹⁰ The refinance share of total subprime mortgages, however, decreased in 1999 and 2000. Refinance loans accounted for over 75 percent of total subprime purchase and refinance mortgages until 1999 and 2000 when they accounted for 73 and 66 percent, respectively. Subprime mortgage lending has become an important component of the overall home purchase market. In 1996, subprime mortgages accounted for 2.0 percent of the home purchase market compared with 6.0 percent in 2000.

¹¹ HUD has compiled an annual list of subprime lenders who report data under HMDA. See Appendix B for further information on the list. Total subprime lenders who report to HMDA has increased since 1996 because of the increased popularity of these loans and because more subprime lenders were required to

interest rate environment led to lower levels of subprime refinances - and refinances overall - in 1999 and 2000.¹³ However, the 475,583 subprime refinance loans originated in 2000 nearly doubled the level of subprime lending in 1996.¹⁴

The subprime share of the refinance market depends on the interest rate environment. In years when interest rates were relatively low, subprime loans accounted for lower shares of overall refinance lending than in years when interest rates were higher.¹⁵ The subprime share of all refinances increased from 11.2 percent in 1996 to 23.8 percent in 2000. (See Figure 3.) The subprime refinance share increased every year except in 1998 when lower interest rates led to a substantial increase in overall refinance lending.

The growth in subprime refinance lending may be good for higher-risk borrowers because it provides increased access to capital markets but it concerns housing advocates and regulators for a number of reasons. First, there is evidence that some borrowers obtain subprime loans when their credit would qualify them for conventional loans.¹⁶

report under HMDA. See Appendix A for a further discussion of HMDA data. The paper also focuses on HMDA loans originated in metropolitan areas. If loans without metropolitan codes were included, subprime refinance loans totaled 69,293 in 1993, 768,233 in 1998, and 581,718 in 2000.

¹² HMDA data on mortgage lending in 2001 will not be available until August 2002. Based on the estimates from Inside Mortgage Finance (see Table B.1), HMDA data in 2001 will also reflect an increase in subprime lending. See Table B.2 in Appendix B for additional information.

¹³ The decline in subprime refinance lending in 2000 may also be attributable to the restructuring of the subprime industry.

¹⁴ The growth in the subprime market and its impact on the overall refinancing market in the 1990s can be explained by demand and supply factors. Home equity increases associated with home price appreciation and households' desire to consolidate increasing debt burdens were the main reasons for the increased demand for subprime lending. Wall Street's interest in the high returns from subprime loans was the main supply factor. Securitization allowed lenders the funds to fuel the rapid growth in subprime lending during the 1990s. However, investors became more cautious in 1998 after major subprime lenders had to write down earnings because of gain-on-sale accounting practices in the industry that lead to higher than projected prepayments. The subprime mortgage industry has since consolidated and large investors and lenders - often prime lenders - have added more structure to the industry.

¹⁵ Subprime refinancing is less sensitive to interest rates than prime refinancing. Subprime borrowers are more likely to refinance with cash out. Prime borrowers are more likely to refinance to obtain lower monthly payments and interest costs.

¹⁶ Freddie Mac has claimed that between 10 and 35 percent of subprime borrowers would qualify for prime mortgages. See Automated Underwriting: Making Mortgage Lending Simpler and Fairer for America's Families. Freddie Mac. Publication 259. September 1996. Inside B&C Lending reported findings from a survey of 50 of the most active subprime lenders that stated that 50 percent of subprime mortgages could qualify as investment grade mortgages. See "Half of Subprime Loans Categorized as 'A' Quality." Inside B&C Lending. June 10, 1996. Fannie Mae has stated, "about 50 percent of home buyers in the subprime market have credit records that are rated A-minus, just shy of qualifying for a low-cost, conventional mortgage." See "Remarks As Prepared for Franklin Raines - Consumers Union Speech." Fannie Mae. December 8, 1999.

Second, there is evidence that the interest rates charged higher-risk borrowers could not be fully explained solely as a function of the additional risk.¹⁷ Third, since subprime lending is largely an unregulated industry, the increase in subprime lending has been associated with an increase in predatory practices by unscrupulous subprime lenders. Finally, subprime refinance lending has been disproportionately concentrated in neighborhoods where home equity is most likely to be the borrower's primary asset. It is important that creditworthy borrowers in these neighborhoods have opportunities in the prime mortgage market. It is also important that those borrowers with weaker credit in these neighborhoods are able to qualify for loans with rates that reflect the additional risk of the loan and not be vulnerable to predatory lending practices. A profile of neighborhoods with high concentrations of subprime refinance lending is presented in the remainder of the paper.

B. Disparities by Neighborhood Income

Subprime refinance lending accounted for larger shares of total refinance lending in low-income neighborhoods than in other neighborhoods.¹⁸ Nationwide, subprime refinance mortgages accounted for 23.8 percent of total refinance lending in 2000. In low-income neighborhoods, subprime refinance mortgages accounted for 36.3 percent of the total 359,354 refinance mortgages originated in metropolitan areas during 2000. In upper-income neighborhoods, subprime refinance mortgages accounted for 16.4 percent of the total 581,216 refinance mortgages. (See Figure 4.¹⁹)

The disparity in subprime refinance shares among neighborhoods of different income levels has declined since 1996. In 1996, the subprime refinance share in low-income neighborhoods was double the national subprime refinance share. In 2000, the subprime share in low-income neighborhoods was 1.5 times the national subprime refinance share. (See Table B.3 in Appendix B.)

C. Disparities by Neighborhood Race

Subprime lenders were an even larger source of refinance credit in predominantly black neighborhoods.²⁰ Subprime refinance lending accounted for 44.8 percent (or 1.9

¹⁷ See Howard Lax, Michael Manti, Paul Raca, and Peter Zorn. "Subprime Lending: An Investigation of Economic Efficiency." Unpublished Paper. Freddie Mac. February 25, 2000.

¹⁸ The census tract income categories are defined as follows: low-income tracts have median incomes that are less than 80 percent of the metropolitan area median income (AMI); middle-income tracts, between 80 percent and 120 percent AMI, and upper-income tracts, greater than 120 percent AMI. In addition, very-low-income tracts have median family income at or below 50 percent of area median.

¹⁹ The subprime refinance share for middle-income neighborhoods was not depicted in Figure 4 because it was approximately equal to the overall subprime refinance share. For additional information, see Tables B.3 in Appendix B.

²⁰ We refer to tracts where blacks comprised at least 50 percent of the population as "predominantly black" neighborhoods.

times the national average share) of the total 64,346 refinance loans in neighborhoods where blacks comprised between 50 and 80 percent of the population and 53.1 percent (or 2.2 times the national average share) of the total 83,606 refinance loans in neighborhoods where blacks comprised at least 80 percent of the population. (See Figure 5.²¹)

The disparity in the predominantly black and national subprime refinance shares has declined since 1996. In 1996, the subprime refinance share in neighborhoods where blacks comprised at least 80 percent of the population was 3.7 times the national subprime refinance share (41.1 percent versus 11.2 percent). In 2000, the subprime share in these black neighborhoods was 2.2 times the national subprime refinance share (53.1 percent versus 23.8 percent).²² (See Table B.4a in Appendix B.)

Middle-income and upper-income predominantly black neighborhoods rely on subprime loans for refinancing. In fact, the disparity between the subprime refinance share for predominantly black neighborhoods and the national average subprime refinance share increases as neighborhood income increases. Borrowers in low-income neighborhoods where blacks comprised at least 80 percent of the population were 1.5 times more likely in 2000 to refinance with a subprime loan than borrowers in low-income neighborhoods overall (54.0 percent versus 36.3 percent). Borrowers in upper income neighborhoods where blacks comprised at least 80 percent of the population were 2.9 times more likely to have subprime refinancing as borrowers in upper-income neighborhoods overall (47.7 percent versus 16.4 percent). (See Figure 6.²³)

Predominantly Hispanic neighborhoods had lower shares of subprime refinances than black neighborhoods.²⁴ For example, neighborhoods where Hispanics comprised at least 80 percent of the population were 1.5 times more likely than the nation as a whole to have a subprime refinance mortgage (36.7 percent versus 23.8 percent). Neighborhoods where blacks comprised at least 80 percent of the population, however,

²¹ For additional information, see Table B.4a in Appendix B.

²² However, note that interest rates affect the disparity between the black and national subprime refinance shares. In 1998, when interest rates were relatively low, the subprime share in neighborhoods where blacks comprised at least 80 percent of the population was 4.8 times the national subprime refinance share. The subprime share in these black neighborhoods remained relatively stable in 1998 and 1999 while the national subprime refinance share increased from 10.8 percent in 1998 to 16.7 percent in 1999. This finding could reflect that the average refinance borrower in 1998 took advantage of lower interest rates to lower monthly mortgage costs while the average refinance borrower in predominantly black neighborhoods had weaker credit and reacted less to interest rate fluctuations and more to a need for cash or the average borrower in predominantly black neighborhoods was creditworthy but did not have conventional prime opportunities to refinance and sought out subprime refinancing.

²³ See Tables B.5a in Appendix B for additional information.

²⁴ We refer to tracts where Hispanics comprised at least 50 percent of the population as “predominantly Hispanic” neighborhoods.

were 2.2 times more likely than the nation as a whole to have a subprime refinance mortgage (53.1 percent versus 23.8 percent).²⁵ (See Figure 7.²⁶)

The subprime refinance share did not vary remarkably across predominantly Hispanic neighborhoods even after controlling for neighborhood income. In neighborhoods where Hispanics comprised at least 80 percent of the population, subprime loans accounted for 36.3 percent of refinance loans in low-income neighborhoods; 38.0 percent of refinance loans in middle-income neighborhoods; and 32.3 percent of loans in upper-income neighborhoods. (See Figure 8.²⁷)

D. Segregation Patterns

This section combines information on population segregation patterns with data on subprime refinance lending. The data show that Hispanics in general, and Hispanic borrowers in particular, are more dispersed spatially than blacks. Differences in the segregation of black and Hispanic borrowers require analyzing the data by the racial characteristics of the borrower (regardless of the neighborhood) to examine if the impact of subprime refinancing on black and Hispanic borrowers can be proxied by examining the impact of subprime refinancing by the racial or ethnic characteristics of the neighborhood. We conclude that analyzing the data by the racial or ethnic and income characteristics of the borrower provides similar patterns to those discussed above for neighborhoods except for comparisons between borrowers in upper-income Hispanic neighborhoods and upper-income Hispanic borrowers.

1. Spatial Concentration of Borrowers by Race or Ethnicity

A Mumford Center report on segregation concluded that the average black lives in a neighborhood that is 33.0 percent white, 51.4 percent black, 11.4 percent Hispanic, and 3.3 percent Asian. The average Hispanic, however, lives in a neighborhood that is 36.5 percent white, 10.8 percent black, 45.5 percent Hispanic, and 5.9 percent Asian.²⁸

²⁵ Hispanics represent the youngest minority in the United States and are entering the mortgage market as first-time homebuyers. National Mortgage News reports that in the past, immigrants took about 10 years to buy a home but the amount of time has decreased as several families work together to purchase a home. See “Immigrants Become Increasingly Important Part of Housing Market.” National Mortgage News. May 11, 1998.

²⁶ See Table B.4b in Appendix B for additional information.

²⁷ See Table B.5b in Appendix B for additional information.

²⁸ The Mumford Center report compares minority composition using 1980, 1990, and 2000 Census data. See <http://www.albany.edu/mumford/census> for the publication: Ethnic Diversity Grows, Neighborhood Integration Lags Behind. Lewis Mumford Center. December 18, 2001. This is also true for borrowers. For both subprime refinance borrowers and refinance borrowers in general, there is a greater likelihood that black borrowers live in Black neighborhoods than Hispanic borrowers live in Hispanic neighborhoods. The Census website, <http://www.census.gov/hhes/www/housing/resseg/gettable.html> also has information on residential segregation by race.

Data from the 1990 Census show that 19.7 percent of the nation's metropolitan black population lived in census tracts where blacks comprised between 50 and 80 percent of the population and 36.0 percent of the nation's metropolitan black population lived in census tracts where blacks comprised at least 80 percent of the population. Furthermore, 4.7 percent of the nation's metropolitan census tracts were tracts where blacks comprised between 50 and 80 percent of the population and 6.4 percent of the nation's census tracts were tracts where blacks comprised at least 80 percent of the population. (See Table B6.a in Appendix B.)

The 1990 Census data show that 23.8 percent of the nation's metropolitan Hispanic population live in census tracts where Hispanics comprise between 50 and 80 percent of the population and 16.0 percent of the nation's metropolitan Hispanic population lives in census tracts where Hispanics comprise at least 80 percent of the population. Furthermore, 3.3 percent of the nation's metropolitan census tracts are tracts where Hispanics comprise between 50 and 80 percent of the population and 1.4 percent of the nation's census tracts are tracts where Hispanics comprise at least 80 percent of the population. (See Table B6.b in Appendix B.)

The 2000 HMDA data show that both black and Hispanic refinance borrowers are less segregated than their populations as a whole but Hispanic borrowers are considerably less so. Neighborhoods where blacks comprised between 50 and 80 percent of the population accounted for 18.3 percent of all black loans (versus 19.7 percent of the black population) and neighborhoods where blacks comprised at least 80 percent of the population accounted for 31.2 percent of all black loans (versus 36 percent of the black population).²⁹ Neighborhoods where Hispanics comprised between 50 and 80 percent of the population accounted for 14.9 percent of all Hispanic loans (versus 23.8 percent of the Hispanic population) and neighborhoods where Hispanics comprised at least 80 percent of the population accounted for 6.7 percent of all Hispanic loans (versus 16.0 percent of the Hispanic population). (See Tables B.6a-b in Appendix B.)

2. Subprime Refinance Shares by Borrower Race or Ethnicity

Subprime lending in 2000 accounted for 54.0 percent of refinance loans originated for low-income black borrowers and 32.4 percent of refinance loans originated for low-income Hispanic borrowers. The subprime refinance share for all low-income borrowers was 34.7 percent. These subprime refinance shares are similar to the shares

²⁹ Tables 5.a-b indicate that there were a significant number of loans in the "Other/Missing" race category. Most of the loans in this category were loans where the applicant did not report his race on a mail or telephone application. Subprime loans accounted for a disproportionate number of loans where the applicant did not provide race. Subprime refinance loans accounted for 23.8 percent of all refinance loans in general but 33.6 percent of loans where the applicant did not provide race. Furthermore, the subprime refinance share of these loans increases with the black composition of the neighborhood. The subprime refinance share of loans where the applicant did not provide race in neighborhoods where blacks comprised no more than 30 percent of the population was 30.6 percent compared to 61.6 percent in neighborhoods where blacks comprise at least 80 percent of the population. Therefore, one could conclude that loans where the applicant did not provide race are disproportionately loans for black borrowers.

reported above for low-income predominantly black and low-income predominantly Hispanic neighborhoods. The subprime refinance share in low-income neighborhoods where blacks (Hispanics) comprised at least 50 percent of the population was 51.0 percent (34.5 percent). (See Tables B.5a-b and B.7.)

Subprime loans accounted for 35.1 percent of refinance loans for upper-income black borrowers compared to 42.2 percent for borrowers in upper-income predominantly black neighborhoods (blacks comprised at least 50 percent of the population). Furthermore, upper-income blacks were as likely as low-income borrowers of any race to refinance with a subprime loan. (See Tables B.5a-b and B.7.) Subprime loans accounted for 16.6 percent of refinance loans for upper-income Hispanic borrowers compared to 34.0 percent for borrowers in upper-income predominantly Hispanic neighborhoods (Hispanics comprised at least 50 percent of the population). As these numbers suggest, borrowers in upper-income Hispanic neighborhoods were twice as likely as Hispanic borrowers to refinance with a subprime refinance loan. (See Tables B.5b and B.7 in Appendix B.)

The difference between the subprime refinance shares for borrowers in upper-income Hispanic neighborhoods and upper-income Hispanic borrowers was the most significant difference found from a comparison of subprime refinancing shares by borrower and neighborhood and could be partly explained by the segregation of upper-income Hispanic borrowers in upper-income neighborhoods. That is, upper-income Hispanic borrowers were more likely to live in upper-income neighborhoods than upper-income black borrowers. Upper-income neighborhoods accounted for 29.3 percent of loans for upper-income black borrowers and 37.5 percent of loans for upper-income Hispanic borrowers. (See Table B.8 in Appendix B.)

E. A Discussion of Results

The racial and income composition of a neighborhood are correlated with a number of factors that may contribute to the observed disparities in subprime refinance shares. For example, disparities in the wealth and creditworthiness of a neighborhood's borrowers and the price appreciation of a neighborhood's properties influence the subprime share of a neighborhood's refinances and are also highly correlated with a neighborhood's income and racial composition.

Disparities in subprime refinance shares between neighborhoods may be exacerbated by the absence of prime lenders in these neighborhoods. Although, low-income and minority neighborhoods have creditworthy borrowers who would benefit from more competition by prime lenders, prime lenders may be more attracted to neighborhoods with higher proportions of borrowers who qualify for prime loans and who represent profitable cross-selling opportunities for the lenders' other products.

Credit History. Research has shown that black borrowers are more likely to have a credit blemishes than other racial or ethnic groups and Hispanics and recent

immigrants have thinner and more non-traditional credit histories.³⁰ Low-income borrowers, on the other hand, do not necessarily have worse credit than other borrowers.³¹ Low-income borrowers, however, are more likely to have higher debt burdens and lower downpayments, and are more likely to run into credit problems when faced with crises like divorce, high medical bills, or unemployment.³² Low-income borrowers are also more likely to live paycheck to paycheck, have no savings, and pay the minimum on credit cards.³³

Price Appreciation. Borrowers in low-income and minority neighborhoods may be less likely than other borrowers to refinance when interest rates fall because they typically make smaller initial downpayments and they may live in neighborhoods with lower and more house variable price appreciation. To the extent that borrowers in low-

³⁰ Freddie Mac states that African American borrowers “were about three times as likely to have high-risk credit bureau scores – defined as FICO scores below 620 – as were White borrowers, based on Freddie Mac’s 1994 mortgage purchases.” Freddie Mac further states that this finding may reflect less about credit markets and more about the economic condition of minority families such as higher unemployment rates, less security, and lower wealth. See Automated Underwriting: Making Mortgage Lending Simpler and Fairer for America’s Families. Freddie Mac. Publication Number: 259. September 1996. HUD researchers reached similar conclusions concerning FHA borrowers, “We conclude that the main differences between Black, Hispanic, and White borrowers are related to the length of credit history, indebtedness, and past credit performance. See Harold L. Bunce, William J. Reeder, and Randall M. Scheessele. “Understanding Consumer Credit and Mortgage Scoring: A Work in Progress at HUD.” Fannie Mae Research Roundtable Series: Making Fair Lending a Reality in the New Millennium. June 30, 1999. The HUD PD&R publication, Cityscape (Volume 3, Number 1, March 1997), compiled studies related to ethnicity and homeownership. See <http://www.dispatch.com/news/special/race/day4/score.html> for the article: Mark A. Fisher. “Minorities Score lower in ‘Colorblind’ Credit Ratings.” The Columbus Dispatch. April 14, 1999. Finally, according to the March 2000 Current Population Survey, black households accounted for 8.6 percent of households that owned or were buying a home and according to 2000 HMDA data, black borrowers accounted for 7.8 percent of refinance loans. According to a 2001 Fannie Mae, 20 percent of credit-impaired borrowers were African American. Fannie Mae defined a credit-impaired borrower as “someone who made a mortgage payment 60 days late, declared bankruptcy, or faced foreclosure in the past three years, or had a mortgage and reported any two of the following: they had their vehicle repossessed, they had a bill referred to a collection agency, their credit cards were charged near their limit, their employer paid them in cash, or they had no credit cards.” Although these statistics were based on different data, they suggest that blacks account for a disproportionate share of credit-impaired borrowers. See <http://www.census.gov/population/www/socdemo/hh-fam.html> for information on the Current Population Survey. See <http://www.fanniemae.com/media/survey> for information on Fannie Mae’s National Housing Survey.

³¹ Consumers Union reports that low-income borrowers are “notoriously saddled with the stigma of being poor credit risks and will continue to pay more, even when they are creditworthy and could qualify for a competitively priced loan.” See “Consumers Union Study Blasts Subprime Industry.” Inside B&C Lending. August 3, 1998.

³² The portion of income devoted to servicing debt burden is rising for families that earn less than \$50,000 and falling for families that earn above \$50,000. One in five families with incomes below \$50,000 experienced a delinquency greater than 60 days. “While Credit Quality May Improve, Long Term Problems Linger.” Page 39. National Mortgage News. September 22, 1997.

³³ “Mortgage Broker Helps Low-Income Buyers.” Origination News. September 1998.

income and minority neighborhoods have lower initial downpayments, lenders may face higher default losses on average in these neighborhoods than in other neighborhoods, making these neighborhoods less attractive to lenders.

Financial Services. Borrowers in low-income and minority neighborhoods may be more likely than borrowers in other neighborhood to require different financial services. First, borrowers in low-income and minority neighborhoods may have lower-valued homes and some prime lenders have a minimum loan amount policy.³⁴ Second, low-income and minority neighborhoods may have a lower proportion of borrowers who represent profitable cross-selling opportunities for the prime lender.³⁵ Third, borrowers in low-income and minority neighborhoods are more likely to experience higher insurance prices or be denied coverage, which affects their ability to secure prime credit.³⁶

III. A Regression Model of Subprime Refinance Lending

The unavailability of individual applicant credit and property characteristics is the major limitation of HMDA data and mortgage redlining studies and is also an obvious limitation in explaining the neighborhood subprime refinance share. But as in these other studies, it is a useful exercise to relate neighborhood indicators to mortgage market outcomes to gain further insights on the concentration of subprime refinance lending in low-income and minority neighborhoods. This section describes a simple ordinary least

³⁴ Lenders that have these policies argue that there are fixed costs of origination that preclude them from profitably originating these loans without charging higher interest rates and fees. See Ronald E. Wienk. "Discrimination in Urban Credit Markets." Housing Policy Debate. Volume 3, Issue 2, 1992.

³⁵ In the prime market, lenders typically lose money during the application stage with profits being made from servicing rights. The prime mortgage market is a high volume commodity industry where lenders rely on servicing rights and cross selling of other products for profits. Subprime lenders are more likely than prime lenders to recoup the costs of originating a loan upfront by charging higher rates and fees rather than rely on servicing revenue. See "Don't Bank On It." City Limits. December 1999.

³⁶ Borrowers in low-income and minority neighborhoods may also be more likely to purchase less coverage and have their insurance canceled. See "The New Redlining," US News and World Report. April 17, 1995. There is debate whether higher prices and lower coverage reflect greater risks and lower demand or whether they reflect a lack of competition from insurers in these neighborhoods. Insurance industry practices that have been criticized for contributing to insurance redlining in low-income and minority neighborhoods include: maximum structure age, minimum property values and refusal to provide replacement value coverage. Insurance redlining affects the provision of mortgages to low-income and minority neighborhoods because prime lenders are more likely to deny mortgages without property insurance. That is, there may be qualified prime borrowers in low-income and minority neighborhoods that are unable to obtain prime credit because they are unable to obtain property insurance. For recent complaints against the insurance industry, see "Insurer Settles Redlining Complaint: Liberty Mutual Will Pay DC Housing Group \$3.25 Million." Washington Post. June 10, 1999. This article also mentions complaints that have been settled against Nationwide Insurance Company, American Family Insurance Group, Allstate Insurance Company, and State Farm Insurance Company. These companies account for approximately 40 percent of the homeowners insurance market.

squares model, done separately for 1997 through 2000, that describes the relationship of neighborhood indicators with the neighborhood subprime refinance share of mortgages.³⁷

Table B.9 provides definitions and basic descriptive statistics for the subprime refinance share and a variety of neighborhood indicators. For example, the mean neighborhood subprime share of total refinance mortgages varied between 21.2 percent in 1998 to a maximum of 29.1 percent in 2000.³⁸ Table B.9 also reports the expected effects of the neighborhood indicators on the subprime refinance share.

The correlation coefficients in Tables B.10 and B.11 provide information on the relationships between the subprime refinance share and a variety of neighborhood indicators. First, a number of neighborhood indicators were correlated with each other and the neighborhood black percentage (BLKPCT).³⁹ For example, the absolute correlation coefficient with the black percentage exceeds 0.30 for the capital indicator (CAPITAL), the homeownership rate (O_PCT), the share of households that receive public assistance (PUBLIC), and median family income (DPMEDINC). Similarly, median family income was correlated with the share of households that receive public assistance, capital return, and the homeownership rate. Finally, the median age of owner-occupied homes (MEDAGE) was negatively correlated with the percent of owner-occupied households that moved in between 1985 and 1988 (TEN8588) and positively correlated with the share of households that received public assistance.

The correlation of most neighborhood indicators and the subprime refinance share was highest in 1998 and 1999, both periods of relatively lower interest rates compared to

³⁷ We focused on 44,460 metropolitan census tracts with nonzero populations and a nonzero number of owners. We also excluded tracts in counties with no more than 30,000 in population and tracts where median incomes were suppressed because of confidentiality. For consistency across years, we excluded from the analysis areas that OMB designated as metropolitan areas in 1998 (MSA=5140) and 1999 (MSA=0580, 1890). Total refinance loans include conventional (i.e. prime, subprime, and manufactured home) and government-insured (i.e., FHA, VA, and RHS) loans.

³⁸ The mean tract subprime refinance share is not weighted by the number of loans and therefore differs from the mean subprime refinance share reported earlier. Also the unweighted mean tract subprime refinance share does not take into account the metropolitan areas that were excluded from this regression analysis (see previous footnote).

³⁹ The indicator for the Hispanic percentage of the tract population was not highly correlated with the tract subprime refinance percentage but the correlation was increasing over time from 0.06 in 1997 and 0.14 in 2000. As discussed above, Hispanics are less concentrated spatially than Hispanics, which likely accounts for the lower correlation with the subprime refinance share. Evidence from the Mumford report suggests that Hispanics have become slightly more spatially concentrated since 1990. The average Hispanic lived in a neighborhood where Hispanics comprised 42.4 percent of the population in 1990 compared to 45.5 percent in 2000. The regression model uses 1990 Census data and using 2000 Census data would likely show a slightly higher correlation between the subprime refinance share and the Hispanic percentage. See <http://www.albany.edu/mumford/census> for the following publication: *Ethnic Diversity Grows, Neighborhood Integration Lags Behind*. Lewis Mumford Center, December 18, 2001. The increase in correlation over time may be due to Hispanics becoming more seasoned homeowners with additional home equity.

1997 and 2000. The correlation coefficients between the subprime refinance share and the following neighborhood indicators were similar for 1997 and 2000 and similar for 1998 and 1999: TEN8588, PUBLIC, CAPITAL, DPMEDINC, and BLKPCT. The weaker correlation coefficients between the subprime refinance share and the neighborhood indicators implies that the model below will explain less of the variance in the tract subprime refinance share in 1997 and 2000 than in 1998 and 1999.

Table B.12 reports the parameter estimates for the ordinary least squares regression model. We converted the black percent and median family income percent into categorical variables using categories consistent with those used in the descriptive analysis in Section II. The coefficients on the other variables and the explanatory power of the model as measured by the R-squared statistic were not significantly altered. We also used dummy variables for the 328 metropolitan areas.⁴⁰ We converted the intercept into a national average measure so that the intercept can be interpreted as the national mean subprime refinance share in middle-income neighborhoods where blacks comprise less than 10 percent of the population.⁴¹

The model for 1998 explains the subprime refinance share better than the models for 1997, 1999, or 2000. The R-square, a measure of goodness of fit, for 1998 was 0.6264 compared to 0.4775 for 1997, 0.5807 for 1999, and 0.4284 for 2000. This finding is not surprising given that 1998 was a year of high overall refinancing and the subprime refinance share could be measured more precisely because of higher refinances volumes overall. In the discussion below, we focus on the 1998 model although all models reach the same general conclusions.

Even after controlling for a variety of other neighborhood factors, the black composition of the neighborhood was an important indicator of the subprime refinance share. For example, the mean subprime percent in middle-income neighborhoods where blacks comprised between 50 and 80 percent was 12 percentage points higher than in middle-income neighborhoods where blacks comprised less than 10 percent of the population.

The black composition of the neighborhood is highly correlated with a variety of individual applicant and property characteristics such as credit history, wealth, mortgage downpayment, and house price appreciation that could not be incorporated into the analysis.⁴² As discussed in the previous section, these factors could contribute to prime lenders' decisions to provide loans in these neighborhoods.

⁴⁰ The coefficients for the individual metropolitan areas are reported in Table B.13 in Appendix B.

⁴¹ See P. E. Kennedy. "Interpreting Dummy Variables." *Review of Economics and Statistics*. Volume, 68, 1986.

⁴² A group of researchers at the Board of Governors of the Federal Reserve System found a statistical relationship between credit history scores and the Zip Code minority composition, after controlling for other locational characteristics. Their finding suggests that the disparities in the subprime refinance share between predominantly black and white neighborhoods reported here would be diminished if a credit score measure were included in the model. However, they also concluded that the statistical relationship

The capital indicator was an important explanatory variable.⁴³ The capital indicator is defined as the interest rate that would amortize a 30-year mortgage with an initial loan amount equal to the median valued owner occupied home with a mortgage payment equal to the median valued rent. Higher values of the capital variable may indicate relatively lower future price appreciation and greater volatility in future price appreciation estimates.⁴⁴

The public assistance indicator was also an important explanatory variable. Neighborhoods with higher percentages of households receiving public assistance may also require different types of financial services than neighborhoods where few households receive public assistance. The share of households that received public assistance varied from a minimum of 0.0 percent to 81.8 percent with a mean of 8.3 percent. In 1998, for approximately every 2-percentage point increase in the share of households that receive public assistance, there was a percentage point increase in the subprime refinance share.

The median age of owner-occupied homes varies positively with the subprime refinance share. Neighborhood with disproportionately older homes may pose greater property risks and be less likely to appreciate in price, suggesting greater credit losses. The neighborhood ownership rate varies negatively with the tract subprime refinance share. This result is consistent with the idea that prime lenders may concentrate their lending efforts in neighborhoods with the most potential business, leaving subprime lenders to serve the mortgage needs of other neighborhoods.⁴⁵ The mobility indicator,

between minority composition and the credit score could reflect credit-related factors that were omitted from the credit scoring models and were correlated with the minority composition of the neighborhood. See Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner. "Credit Scoring: Issues and Evidence From Credit Bureau Files." Working Paper. Board of Governors of the Federal Reserve System. February 23, 1998.

⁴³ The beta coefficient is a standardized coefficient estimate calculated by dividing the coefficient estimate by the ratio of the standard deviation of the independent variable to the standard deviation of the dependent variable. It can be interpreted as the number of standard error changes in the dependent variable resulting from a standard error change in the independent variable and is sometimes used as a measure of the relative strength of regressors in affecting the dependent variable. See Peter Kennedy. A Guide to Econometrics. MIT Press. Fourth Edition. 1998.

⁴⁴ On the other hand, neighborhoods with high house prices relative to rents may reflect neighborhoods with higher expected future price appreciation than reflected in the current rents. This variable differs slightly from the typical median rent-to-median value ratio used in other papers but is essentially the same measure of whether a owner-occupied property's value is over or under-capitalized relative to the return from rental properties. See Ying Li and Eric Rosenblatt. "Can Urban Indicators Predict Home Price Appreciation? Implications for Redlining Research." Real Estate Economics. Volume 25, 1997.

⁴⁵ The subprime refinance share may be higher in neighborhoods with fewer owner-occupied homes because of uncertainty of returns associated with "thin markets". Lang and Nakamura hypothesize that lenders deny more loans in neighborhoods where there is more uncertainty of return. Neighborhoods with "thin" housing markets (i.e., less house sales) have higher variances in appraisals that lead lenders to deny more loans because of greater uncertainty in return. William W. Lang and Leonard I. Nakamura, "A

which measures the proportion of owner-occupied households that moved between 1985 and 1988, may be one indicator of households with significant equity in their homes. The mobility indicator varies negatively with the subprime refinance share, which is also consistent with the idea that prime lenders may concentrate their lending efforts in neighborhoods with the most potential business.

IV. Conclusion

This study identifies the types of neighborhoods in the nation as a whole where borrowers were the most likely to rely on subprime loans when refinancing their mortgages. An appendix to this paper presents the same data for 27 specific metropolitan areas across the nation. The metropolitan areas were chosen based on previous research on subprime lending at HUD and on advice from community advocacy groups throughout the nation. The metropolitan areas selected vary regionally and reflect differences in the demographic makeup of our nation's metropolitan areas.

The national and individual metropolitan area analyses are based on mortgage data collected under the Home Mortgage Disclosure Act and clearly demonstrate the growth in subprime refinance lending and its disproportionate impact on low-income and predominantly black neighborhoods throughout the nation.

This paper continues HUD's research on subprime lending. Home equity is typically the main source of wealth for borrowers in low-income and minority neighborhoods. Creditworthy borrowers in these neighborhoods need access to lower cost prime credit and weaker credit borrowers in these neighborhoods should have access to subprime credit that is priced appropriately to their credit circumstances. Most importantly, borrowers in these neighborhoods should be protected against a subset of subprime lenders who engage in predatory lending practices.

Model of Redlining." Journal of Urban Economic. Volume 33, 1993. See also Robert B. Avery, Patricia E. Beeson, and Mark S. Sniderman, "Neighborhood Information and Home Mortgage Lending," Journal of Urban Economics. Volume 45, 1999; David C. Ling and Susan M. Wachter. "Information Externalities and Home Mortgage Underwriting," Journal of Urban Economics, Volume 44, 1998; Man Cho and Isaac F. Megbolugbe. "An Empirical Analysis of Property Appraisal and Mortgage Redlining." The Journal of Real Estate Finance and Economics. Volume 13, 1996; and Paul S. Calem. "Mortgage Credit Availability in Low- and Moderate-Income Minority Neighborhoods: Are Information Externalities Critical." The Journal of Real Estate Finance and Economics. Volume 13, 1996.

Appendix A

Home Mortgage Disclosure Act Data

The analysis in this paper is based on Home Mortgage Disclosure Act (HMDA) data for 1993 through 2000. HMDA data is the most comprehensive loan level database on mortgage lending activity in the United States and includes information on borrower income, borrower racial or ethnic group, and census tract location of the property. HMDA contains information not only for originations but also for mortgage applications that do not end in origination.

HMDA data does not have a field that identifies subprime mortgages and does not contain information that the lender used to underwrite the mortgage such as loan-to-value and debt ratios, the annual percentage rate (APR), or the borrower's credit score.⁴⁶ HUD has annually identified a list of HMDA reporters that specialize in subprime lending. The list can be used to distinguish between loans originated by conventional prime and subprime lenders and is widely used by mortgage market analysts, policymakers, and advocacy groups for their research on subprime lending.⁴⁷

HMDA does not cover all subprime mortgage lending. Furthermore, there are limitations to identifying subprime loans in HMDA using the list. First, one cannot identify prime mortgages originated by subprime lenders or subprime mortgages originated by prime lenders in HMDA. For example, large lenders and conduits like Chase Manhattan, Residential Funding, and IndyMac often report the mortgages originations of their subprime divisions with the mortgage originations of their prime divisions. Second, HMDA does not include data on second lien home equity loans except possibly for the portion of funds that are used for home improvement. Only loans classified as home improvement loans must be reported under HMDA. Third, HMDA does not include lenders whose mortgage business accounts for less than 10 percent of their overall lending. For example, Household International, a market leader in subprime mortgage lending, does not report to HMDA because its mortgage business comprises less than 10 percent of its overall lending which includes subprime auto and credit card lending. HMDA coverage issues notwithstanding, the mortgages reported by subprime lenders in HMDA provide insights on the demographic characteristics of borrowers that use subprime mortgages for refinance credit.

⁴⁶ There are no publicly available loan level databases that identify subprime loans or information on mortgage terms such as loan-to-value or debt ratios or the annual percentage rate (APR) on the loan. Much of the available data on subprime lending is aggregated and focuses on the dollar volume of loans originated or securitized by particular lenders. These data are usually generated from surveys of subprime lenders or collected by ratings agencies for evaluating securitizations.

⁴⁷ For a copy of the 2000 list and data on mortgage market trends in the prime and subprime mortgage markets, see <http://www.huduser.org/datasets/manu.html>. For a 1998 analysis of HMDA data, see Randall M. Scheessele. "1998 HMDA Highlights." PD&R Housing Finance Working Paper Series. HUD. October 1999.

Appendix C

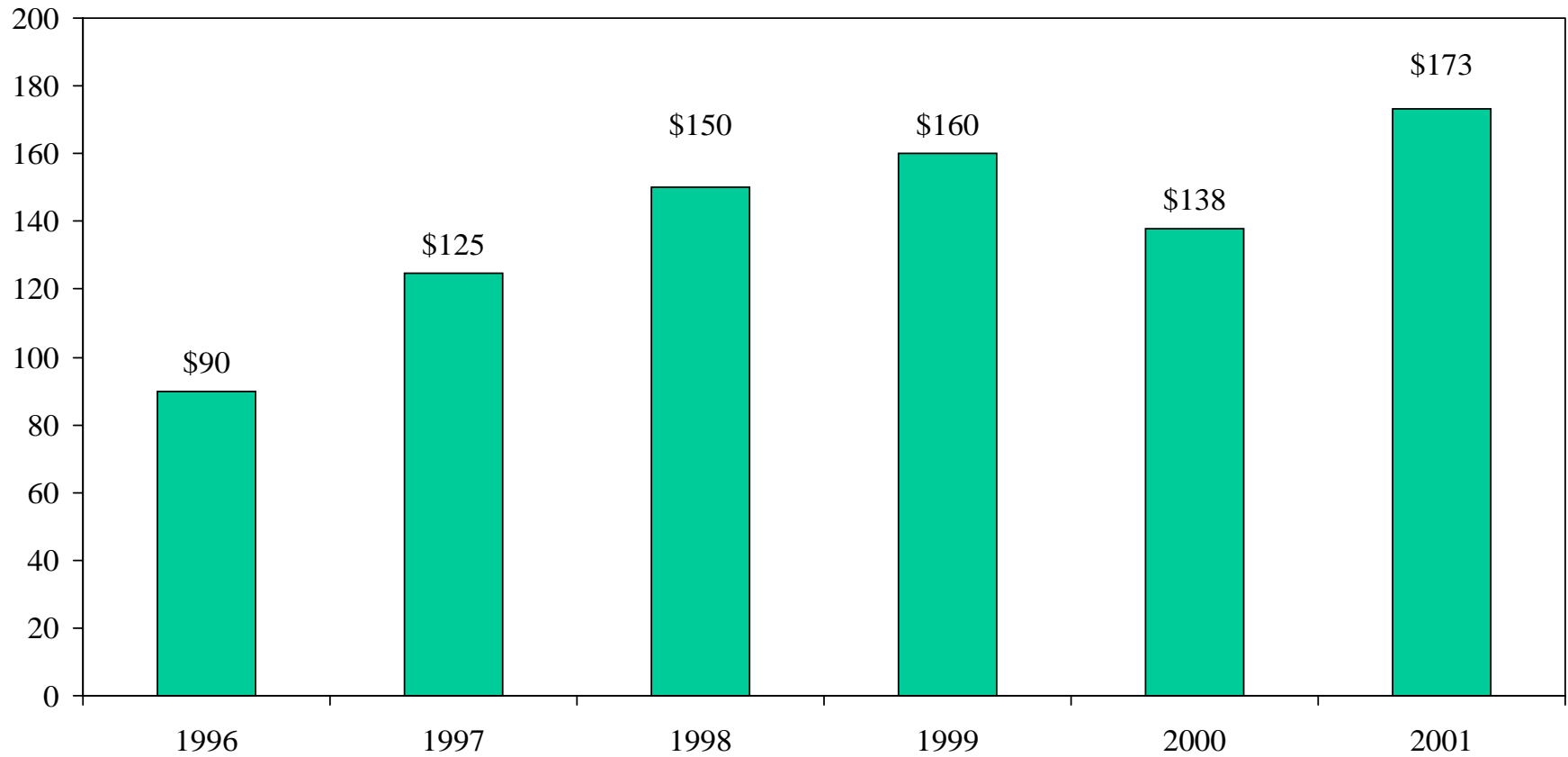
Subprime Refinance Lending in 27 Metropolitan Areas

This appendix provides information on subprime refinance lending in 27 metropolitan areas. The metropolitan areas were chosen based on previous analyses at HUD and on recommendations by housing advocates. These metropolitan areas accounted for 38.8 percent of subprime refinancing and 36.5 percent of all refinances in all metropolitan areas. Table C.1 reports the share of subprime and overall refinances accounted for by the 27 metropolitan areas. These shares are also broken out by borrower race or ethnicity and income. Table C.2 reports the subprime refinance shares of loans for the 27 metropolitan areas broken out by tract black and income composition. Table C.3 reports the same data for the 27 metropolitan areas but it is broken out by borrower race or ethnicity and income.

The maps give illustrate visually the spatial concentration of subprime refinance lending in the 27 metropolitan areas. Predominantly black or Hispanic neighborhoods are defined as they were in the paper. That is, a tract is predominantly black (Hispanic) if blacks (Hispanics) comprised at least 50 percent of the tract's population. A subprime tract is a tract where subprime refinance mortgages accounted for at least 25 percent of all refinance mortgages in the tract.

Figure 1

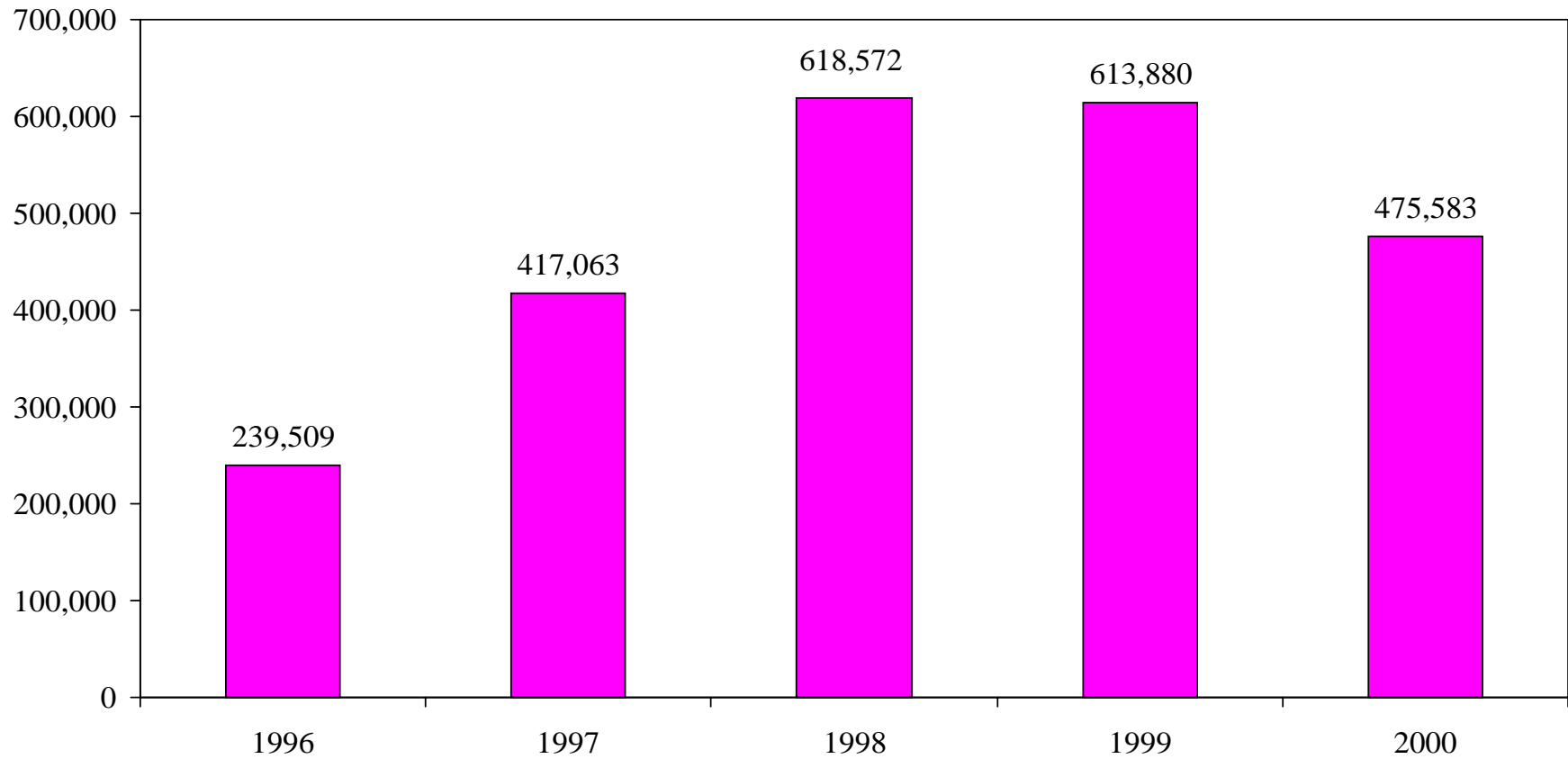
Subprime Mortgage Lending Activity 1996-2001 (in billions)



Source: Inside Mortgage Finance

Figure 2

Subprime Mortgage Loan Activity 1996-2000



Source: Home Mortgage Disclosure Act Data

Figure 3

Subprime Share of All Refinance Loans

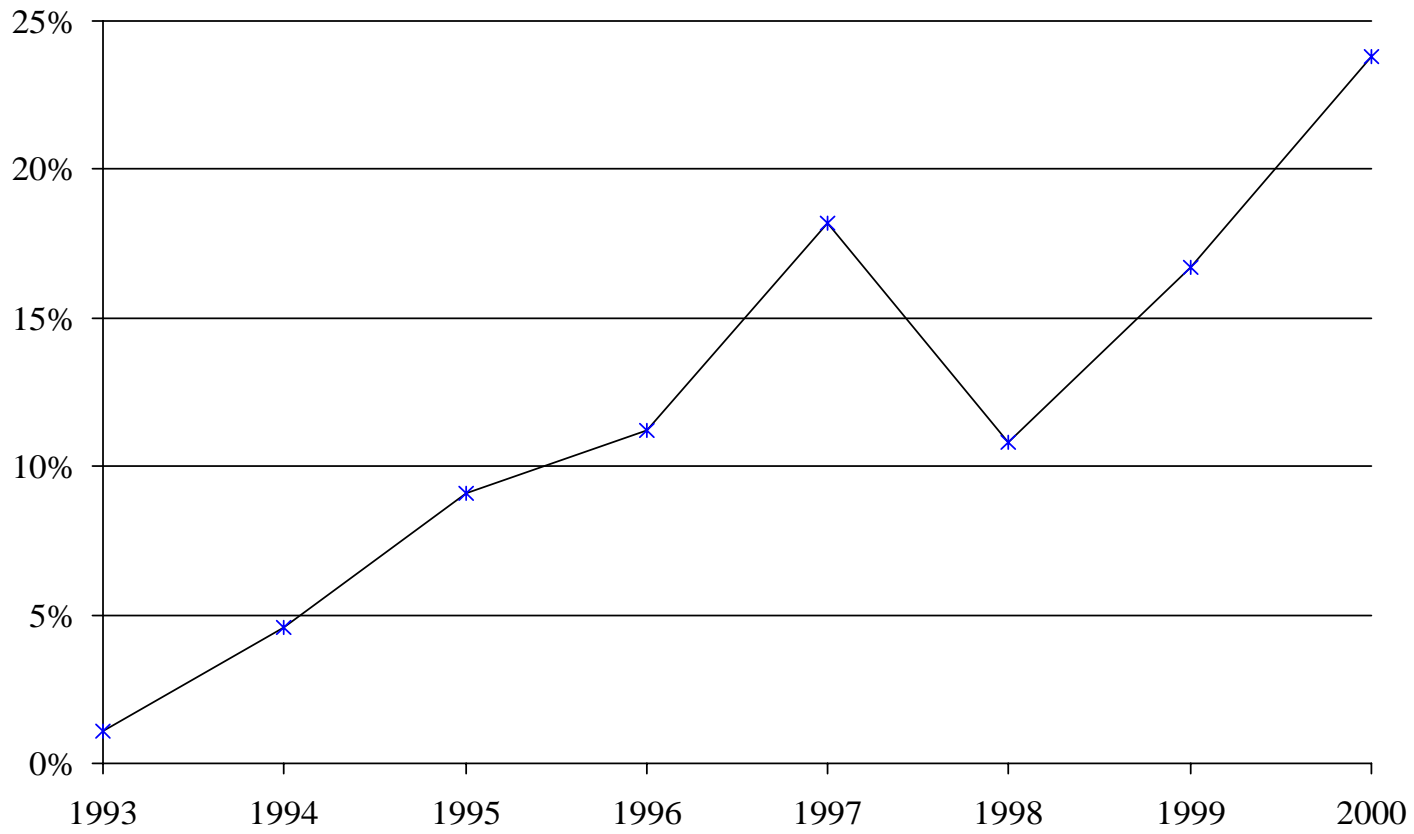


Figure 4

Subprime Share of All Refinance Loans by Neighborhood Income Composition

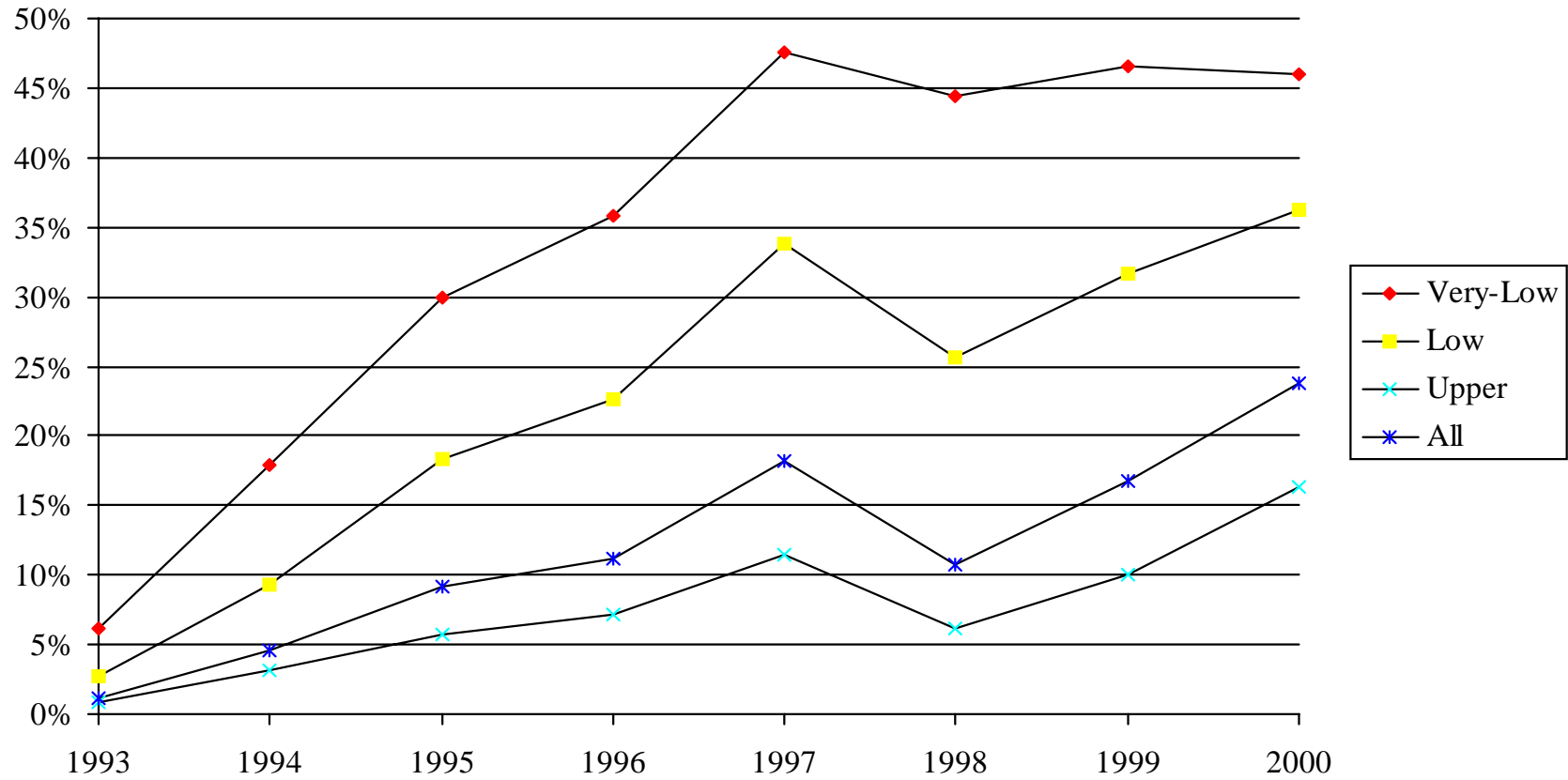


Figure 5

Subprime Share of All Refinance Loans by Neighborhood Black Composition

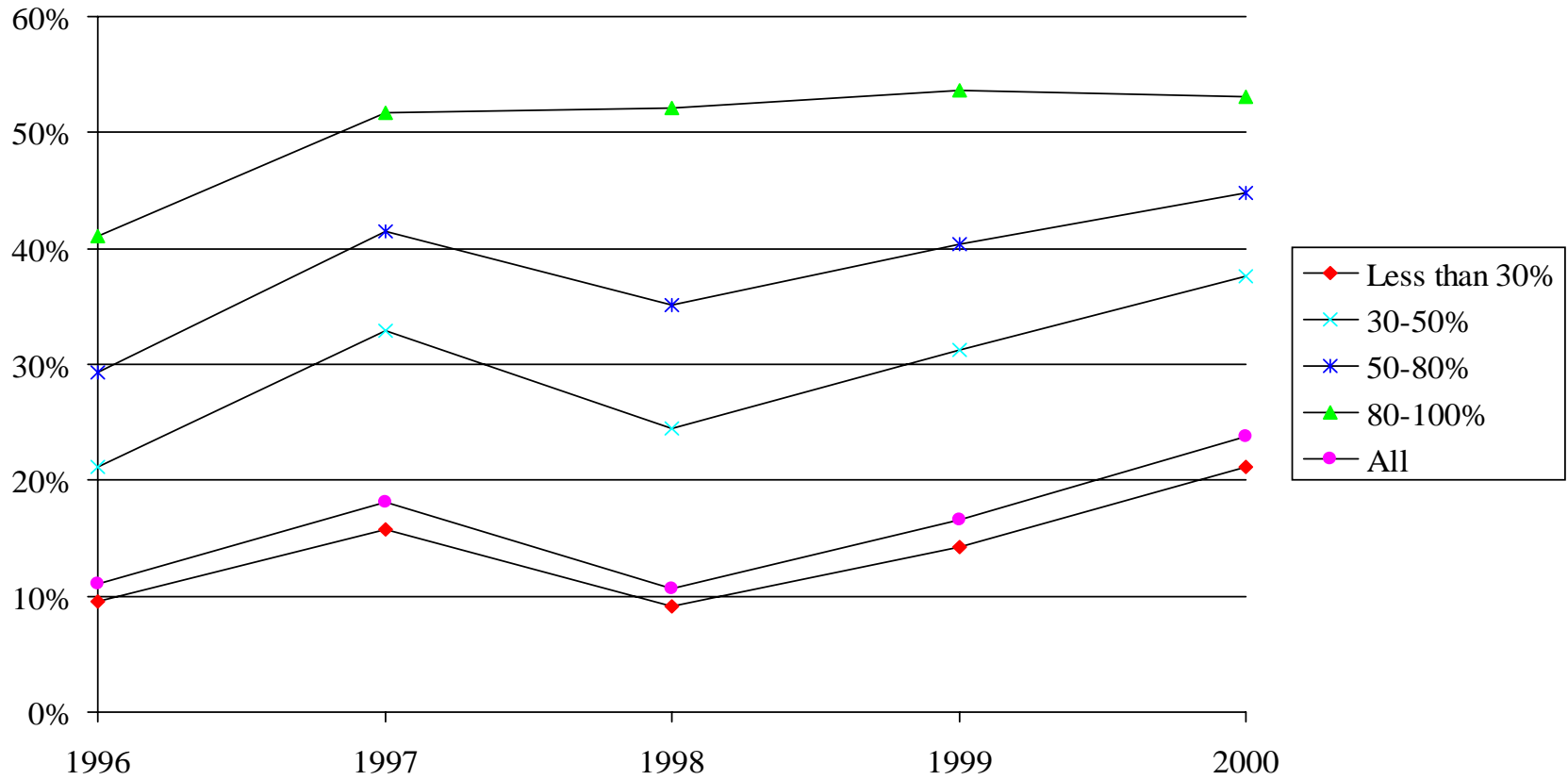


Figure 6

Subprime Refinance Shares in 2000 by Income and Black Composition

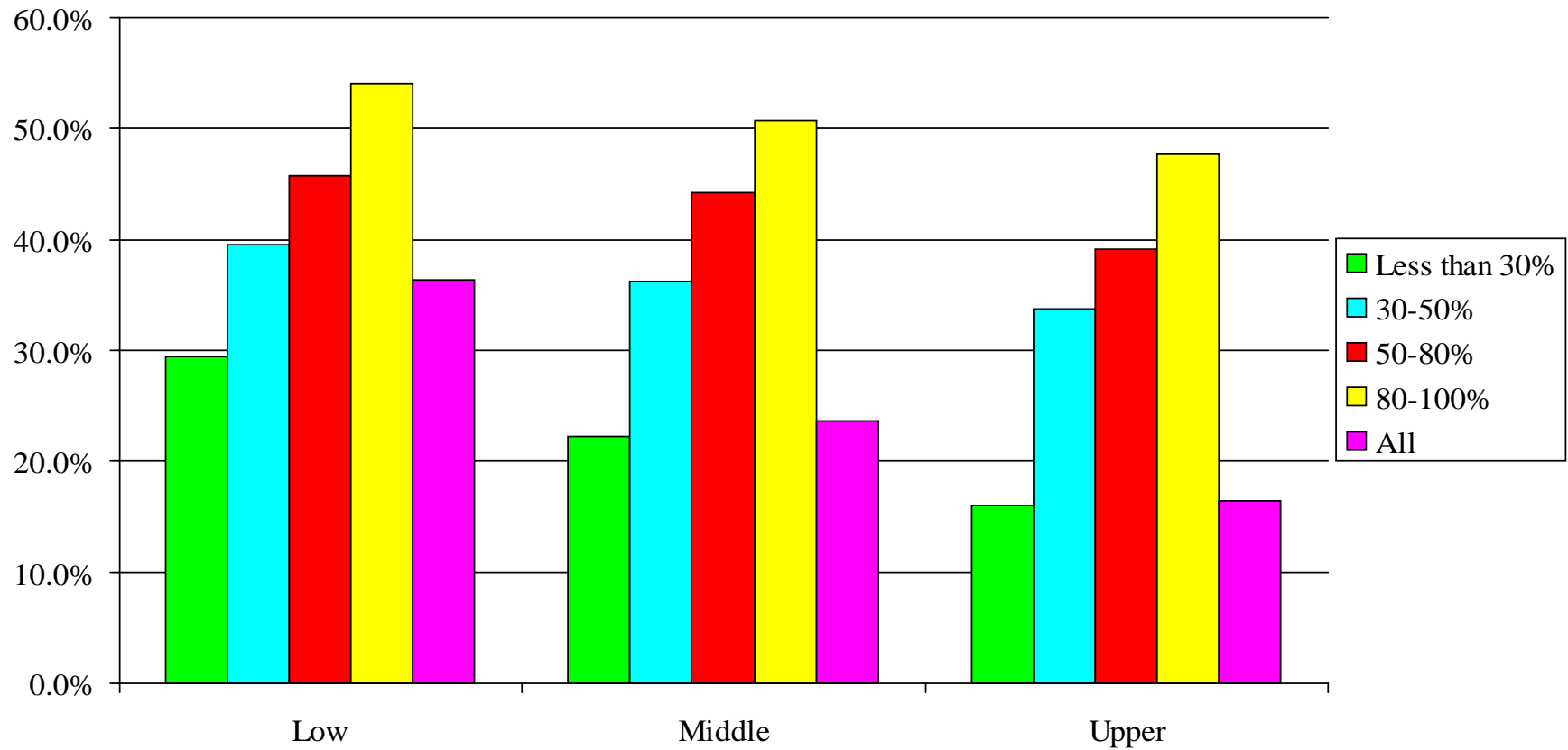


Figure 7

Subprime Share of All Refinance Loans by Neighborhood Hispanic Composition

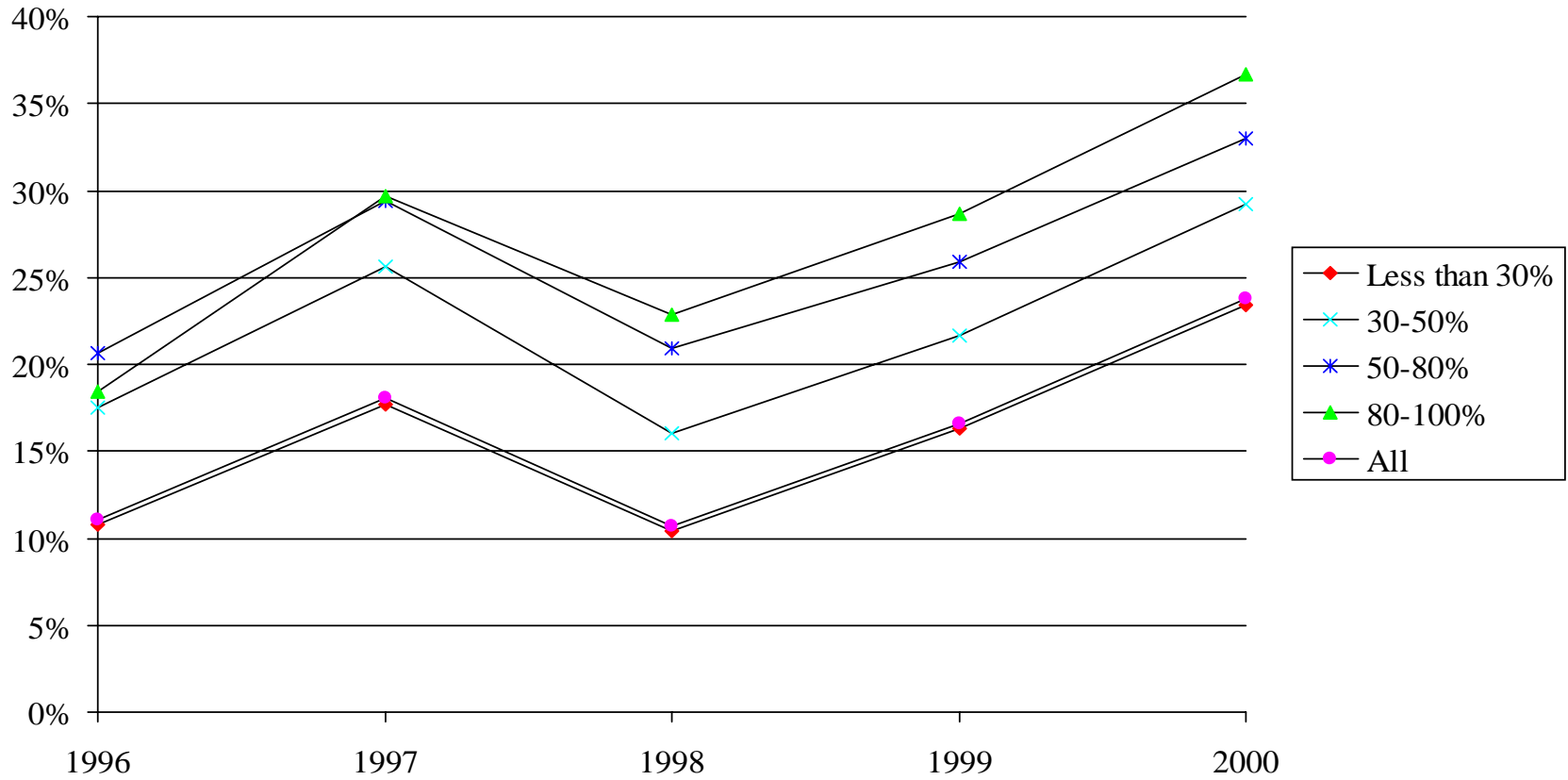


Figure 8

Subprime Refinance Shares in 2000 by Income and Hispanic Composition

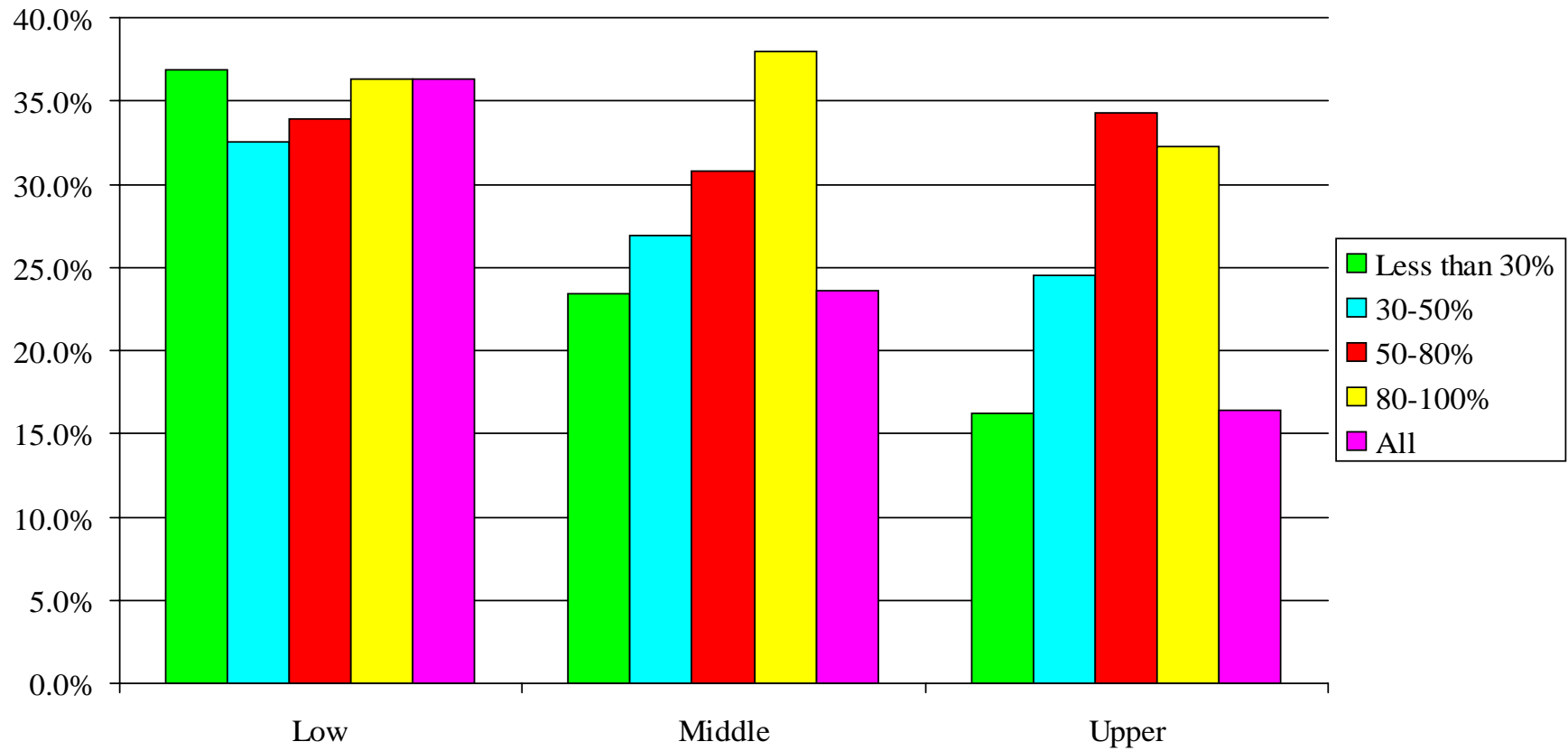


Table B.1**Subprime Mortgage Activity**

	Overall Mortgage Market	Subprime Mortgage Market	Growth in Subprime Lending	Subprime Share of Overall Mortgage Market
1996	785	90	NA	11.5%
1997	859	125	27.7%	14.5%
1998	1,450	150	17.0%	10.3%
1999	1,310	160	6.3%	12.2%
2000	1,048	138	-15.9%	13.2%
2001	2,100	173	20.3%	8.3%

Source: Inside Mortgage Finance

Table B.2

HMDA Refinance Mortgages by Product Type

	1996	1997	1998	1999	2000
			Subprime		
Loans	239,509	417,063	618,572	613,880	475,583
Share of Market	11.2%	18.2%	10.8%	16.7%	23.8%
			Manufactured Home		
Loans	37,739	46,464	69,300	39,834	24,620
Share of Market	1.8%	2.0%	1.2%	1.1%	1.2%
			Conventional Prime		
Loans	1,701,250	1,682,743	4,538,878	2,786,886	1,438,309
Share of Market	79.8%	73.3%	79.2%	75.7%	72.0%
			FHA		
Loans	101,560	99,090	315,617	170,945	53,547
Share of Market	4.8%	4.3%	5.5%	4.6%	2.7%
			VA		
Loans	51,232	49,952	189,799	67,497	6,077
Share of Market	2.4%	2.2%	3.3%	1.8%	0.3%
			RHS		
Loans	1,158	996	459	430	271
Share of Market	0.1%	0.0%	0.0%	0.0%	0.0%
			All Refinance Loans		
Loans	2,132,448	2,296,308	5,732,625	3,679,472	1,998,407

Table B.3

**Subprime Refinance Originations
by Neighborhood Income Composition**

	1996	1997	1998	1999	2000
	Subprime Refinance Loans				
Low	66,679	114,320	165,128	170,413	130,547
Middle	120,402	212,363	317,827	318,341	249,662
Upper	52,067	89,739	135,291	124,947	95,248
Total	239,509	417,063	618,572	613,880	475,583
	All Refinance Loans				
Low	294,100	338,420	642,920	539,749	359,354
Middle	1,112,829	1,175,592	2,899,640	1,897,698	1,057,027
Upper	723,956	780,233	2,186,505	1,240,274	581,216
Total	2,132,448	2,296,308	5,732,625	3,679,472	1,998,407
	Subprime Share				
Low	22.7%	33.8%	25.7%	31.6%	36.3%
Middle	10.8%	18.1%	11.0%	16.8%	23.6%
Upper	7.2%	11.5%	6.2%	10.1%	16.4%
Total	11.2%	18.2%	10.8%	16.7%	23.8%
	Disparity Ratio				
Low	2.0	1.9	2.4	1.9	1.5
Middle	1.0	1.0	1.0	1.0	1.0
Upper	0.6	0.6	0.6	0.6	0.7
Total	1.0	1.0	1.0	1.0	1.0

Table B.4a

**Subprime Refinance Originations
by Neighborhood Black Composition**

	1996	1997	1998	1999	2000
Subprime Refinance Loans					
Less than 30%	187453	330822	489723	482442	378322
30-50%	11830	20541	30330	31515	23949
50-80%	15233	25409	37567	38437	28830
80-100%	24736	39821	60737	61369	44405
50-100%	39,969	65,230	98,304	99,806	73,235
Total	239,509	417,063	618,572	613,880	475,583
All Refinance Loans					
Less than 30%	1,964,178	2,094,531	5,384,269	3,369,002	1,786,170
30-50%	55,439	62,265	123,048	100,347	63,739
50-80%	51,530	61,066	106,345	94,886	64,346
80-100%	60,177	76,908	116,352	113,964	83,606
50-100%	111,707	137,974	222,697	208,850	147,952
Total	2,132,448	2,296,308	5,732,625	3,679,472	1,998,407
Subprime Share					
Less than 30%	9.5%	15.8%	9.1%	14.3%	21.2%
30-50%	21.3%	33.0%	24.6%	31.4%	37.6%
50-80%	29.6%	41.6%	35.3%	40.5%	44.8%
80-100%	41.1%	51.8%	52.2%	53.8%	53.1%
50-100%	35.8%	47.3%	44.1%	47.8%	49.5%
Total	11.2%	18.2%	10.8%	16.7%	23.8%
Disparity Ratio					
Less than 30%	0.8	0.9	0.8	0.9	0.9
30-50%	1.9	1.8	2.3	1.9	1.6
50-80%	2.6	2.3	3.3	2.4	1.9
80-100%	3.7	2.9	4.8	3.2	2.2
50-100%	3.2	2.6	4.1	2.9	2.1
Total	1.0	1.0	1.0	1.0	1.0

Table B.4b

**Subprime Refinance Originations
by Neighborhood Hispanic Composition**

	1996	1997	1998	1999	2000
Subprime Refinance Loans					
Less than 30%	221,390	389,379	576,758	570,617	442,057
30-50%	8,894	13,586	20,715	21,440	16,652
50-80%	6,903	10,387	15,868	16,279	12,528
80-100%	2,065	3,241	5,016	5,427	4,269
50-100%	8,968	13,628	20,884	21,706	16,797
Total	239,509	417,063	618,572	613,880	475,583
All Refinance Loans					
Less than 30%	2,036,743	2,194,790	5,502,090	3,496,531	1,891,315
30-50%	50,267	53,248	128,950	98,755	56,941
50-80%	33,463	35,452	76,389	63,293	37,960
80-100%	10,851	11,280	22,585	19,620	11,645
50-100%	44,314	46,732	98,974	82,913	49,605
Total	2,132,448	2,296,308	5,732,625	3,679,472	1,998,407
Subprime Share					
Less than 30%	10.9%	17.7%	10.5%	16.3%	23.4%
30-50%	17.7%	25.5%	16.1%	21.7%	29.2%
50-80%	20.6%	29.3%	20.8%	25.7%	33.0%
80-100%	19.0%	28.7%	22.2%	27.7%	36.7%
50-100%	20.2%	29.2%	21.1%	26.2%	33.9%
Total	11.2%	18.2%	10.8%	16.7%	23.8%
Disparity Ratio					
Less than 30%	1.0	1.0	1.0	1.0	1.0
30-50%	1.6	1.4	1.5	1.3	1.2
50-80%	1.8	1.6	1.9	1.5	1.4
80-100%	1.7	1.6	2.1	1.7	1.5
50-100%	1.8	1.6	2.0	1.6	1.4
Total	1.0	1.0	1.0	1.0	1.0

Table B.5a

**2000 HMDA Loans
by Neighborhood Black and Income Composition**

	Low	Middle	Upper	Total
	Subprime			
Less than 30%	67,476	219,682	91,132	378,322
30-50%	11,645	10,883	1,408	23,949
50-80%	16,847	10,363	1,616	28,830
80-100%	34,579	8,734	1,092	44,405
50-100%	51,426	19,097	2,708	73,235
Total	130,547	249,662	95,248	475,583
	All Loans			
Less than 30%	229,065	986,289	570,619	1,786,170
30-50%	29,445	30,073	4,178	63,739
50-80%	36,768	23,426	4,129	64,346
80-100%	64,076	17,239	2,290	83,606
50-100%	100,844	40,665	6,419	147,952
Total	359,354	1,057,027	581,216	1,998,407
	Subprime Share			
Less than 30%	29.5%	22.3%	16.0%	21.2%
30-50%	39.5%	36.2%	33.7%	37.6%
50-80%	45.8%	44.2%	39.1%	44.8%
80-100%	54.0%	50.7%	47.7%	53.1%
50-100%	51.0%	47.0%	42.2%	49.5%
Total	36.3%	23.6%	16.4%	23.8%
	Disparity in Subprime Shares			
Less than 30%	0.8	0.9	1.0	0.9
30-50%	1.1	1.5	2.1	1.6
50-80%	1.3	1.9	2.4	1.9
80-100%	1.5	2.1	2.9	2.2
50-100%	1.4	2.0	2.6	2.1
Total	1.0	1.0	1.0	1.0

Table B.5b

**2000 HMDA Loans
by Neighborhood Hispanic and Income Composition**

	Low	Middle	Upper	Total
	Subprime			
Less than 30%	111,065	238,142	92,804	442,057
30-50%	8,510	6,734	1,406	16,652
50-80%	8,125	3,493	909	12,528
80-100%	2,847	1,293	129	4,269
50-100%	10,972	4,786	1,038	16,797
Total	130,547	249,662	95,248	475,583
	All Loans			
Less than 30%	301,339	1,017,287	572,432	1,891,315
30-50%	26,197	25,005	5,734	56,941
50-80%	23,971	11,336	2,651	37,960
80-100%	7,847	3,399	399	11,645
50-100%	31,818	14,735	3,050	49,605
Total	359,354	1,057,027	581,216	1,998,407
	Subprime Share			
Less than 30%	36.9%	23.4%	16.2%	23.4%
30-50%	32.5%	26.9%	24.5%	29.2%
50-80%	33.9%	30.8%	34.3%	33.0%
80-100%	36.3%	38.0%	32.3%	36.7%
50-100%	34.5%	32.5%	34.0%	33.9%
Total	36.3%	23.6%	16.4%	23.8%
	Disparity in Subprime Shares			
Less than 30%	1.0	1.0	1.0	1.0
30-50%	0.9	1.1	1.5	1.2
50-80%	0.9	1.3	2.1	1.4
80-100%	1.0	1.6	2.0	1.5
50-100%	0.9	1.4	2.1	1.4
Total	1.0	1.0	1.0	1.0

Table B.6a

Population and 2000 Mortgage Loans by Black Composition

	Tracts	Total	Black	Hispanic	White	Other and Missing
Black Composition			Population			
Less than 30%	39,239	175,837,539	7,923,931	17,971,746	142,620,170	7,321,692
30-50%	2,135	8,167,496	3,167,522	1,110,315	3,597,383	292,276
50-80%	2,199	7,688,811	4,918,478	779,916	1,834,026	156,391
80-100%	2,970	9,688,671	8,997,457	200,934	430,244	60,036
50-100%	5,169	17,377,482	13,915,935	980,850	2,264,270	216,427
All	46,543	201,382,517	25,007,388	20,062,911	148,481,823	7,830,395
			All Loans			
Less than 30%	37,704	1,786,178	60,651	114,107	1,144,012	467,408
30-50%	1,950	63,739	18,168	3,399	22,870	19,302
50-80%	2,033	64,346	28,457	2,850	12,984	20,055
80-100%	2,831	83,607	48,584	1,056	7,672	26,295
50-100%	4,864	147,953	77,041	3,906	20,656	46,350
All	44,518	1,998,416	155,884	121,456	1,187,849	533,227
			Subprime Loans			
Less than 30%	35,515	378,322	24,229	26,489	184,481	143,123
30-50%	1,814	23,949	8,437	1,094	5,084	9,334
50-80%	1,928	28,830	13,651	964	3,593	10,622
80-100%	2,742	44,405	25,106	426	2,687	16,186
50-100%	4,670	73,235	38,757	1,390	6,280	26,808
All	41,999	475,583	71,432	28,979	195,873	179,299
			Population			
Less than 30%	84.3%	87.3%	31.7%	89.6%	96.1%	93.5%
30-50%	4.6%	4.1%	12.7%	5.5%	2.4%	3.7%
50-80%	4.7%	3.8%	19.7%	3.9%	1.2%	2.0%
80-100%	6.4%	4.8%	36.0%	1.0%	0.3%	0.8%
50-100%	11.1%	8.6%	55.6%	4.9%	1.5%	2.8%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
			All Loans			
Less than 30%	84.7%	89.4%	38.9%	93.9%	96.3%	87.7%
30-50%	4.4%	3.2%	11.7%	2.8%	1.9%	3.6%
50-80%	4.6%	3.2%	18.3%	2.3%	1.1%	3.8%
80-100%	6.4%	4.2%	31.2%	0.9%	0.6%	4.9%
50-100%	10.9%	7.4%	49.4%	3.2%	1.7%	8.7%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
			Subprime Loans			
Less than 30%	84.6%	79.5%	33.9%	91.4%	94.2%	79.8%
30-50%	4.3%	5.0%	11.8%	3.8%	2.6%	5.2%
50-80%	4.6%	6.1%	19.1%	3.3%	1.8%	5.9%
80-100%	6.5%	9.3%	35.1%	1.5%	1.4%	9.0%
50-100%	11.1%	15.4%	54.3%	4.8%	3.2%	15.0%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
			Subprime Share			
Less than 30%	94.2%	21.2%	39.9%	23.2%	16.1%	30.6%
30-50%	93.0%	37.6%	46.4%	32.2%	22.2%	48.4%
50-80%	94.8%	44.8%	48.0%	33.8%	27.7%	53.0%
80-100%	96.9%	53.1%	51.7%	40.3%	35.0%	61.6%
50-100%	96.0%	49.5%	50.3%	35.6%	30.4%	57.8%
All	94.3%	23.8%	45.8%	23.9%	16.5%	33.6%

Table B.6b

Population and 2000 Mortgage Loans by Hispanic Composition

	Tracts	Total	Black	Hispanic	White	Other and Missing
Black Composition						
Population						
Less than 30%	42,466	181,334,553	22,949,044	8,617,619	143,111,380	6,656,510
30-50%	1,895	8,946,149	1,270,752	3,461,374	3,495,826	718,197
50-80%	1,534	7,507,425	724,837	4,775,797	1,609,973	396,818
80-100%	648	3,594,390	62,755	3,208,121	264,644	58,870
50-100%	2,182	11,101,815	787,592	7,983,918	1,874,617	455,688
All	46,543	201,382,517	25,007,388	20,062,911	148,481,823	7,830,395
All Loans						
Less than 30%	40,642	1,891,324	149,269	78,869	1,159,178	504,008
30-50%	1,819	56,941	4,361	16,361	19,072	17,147
50-80%	1,450	37,960	2,020	18,062	8,306	9,572
80-100%	607	11,645	210	8,120	982	2,333
50-100%	2,057	49,605	2,230	26,182	9,288	11,905
All	44,518	1,998,416	155,884	121,456	1,187,849	533,227
Subprime Loans						
Less than 30%	38,358	442,057	68,255	15,748	189,059	168,995
30-50%	1,710	16,652	1,998	4,798	4,405	5,451
50-80%	1,364	12,528	1,054	5,701	2,095	3,678
80-100%	567	4,269	116	2,726	286	1,141
50-100%	1,931	16,797	1,170	8,427	2,381	4,819
All	41,999	475,583	71,432	28,979	195,873	179,299
Population						
Less than 30%	91.2%	90.0%	91.8%	43.0%	96.4%	85.0%
30-50%	4.1%	4.4%	5.1%	17.3%	2.4%	9.2%
50-80%	3.3%	3.7%	2.9%	23.8%	1.1%	5.1%
80-100%	1.4%	1.8%	0.3%	16.0%	0.2%	0.8%
50-100%	4.7%	5.5%	3.1%	39.8%	1.3%	5.8%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Loans						
Less than 30%	91.3%	94.6%	95.8%	64.9%	97.6%	94.5%
30-50%	4.1%	2.8%	2.8%	13.5%	1.6%	3.2%
50-80%	3.3%	1.9%	1.3%	14.9%	0.7%	1.8%
80-100%	1.4%	0.6%	0.1%	6.7%	0.1%	0.4%
50-100%	4.6%	2.5%	1.4%	21.6%	0.8%	2.2%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Subprime Loans						
Less than 30%	91.3%	93.0%	95.6%	54.3%	96.5%	94.3%
30-50%	4.1%	3.5%	2.8%	16.6%	2.2%	3.0%
50-80%	3.2%	2.6%	1.5%	19.7%	1.1%	2.1%
80-100%	1.4%	0.9%	0.2%	9.4%	0.1%	0.6%
50-100%	4.6%	3.5%	1.6%	29.1%	1.2%	2.7%
All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Subprime Share						
Less than 30%	94.4%	23.4%	45.7%	20.0%	16.3%	33.5%
30-50%	94.0%	29.2%	45.8%	29.3%	23.1%	31.8%
50-80%	94.1%	33.0%	52.2%	31.6%	25.2%	38.4%
80-100%	93.4%	36.7%	55.2%	33.6%	29.1%	48.9%
50-100%	93.9%	33.9%	52.5%	32.2%	25.6%	40.5%
All	94.3%	23.8%	45.8%	23.9%	16.5%	33.6%

Table B.7

2000 Refinance Lending by Borrower Race or Ethnicity and Income

	Low-Income	Middle- Income	Upper- Income	Missing Income	All
Subprime Refinance					
Black	42,498	16,494	11,572	868	71,432
Hispanic	12,524	8,474	7,437	544	28,979
White	78,968	55,162	57,594	4,149	195,873
Other/Missing	80,043	48,922	47,466	2,868	179,299
Total	214,033	129,052	124,069	8,429	475,583
All Refinance Loans					
Black	78,677	37,132	32,927	7,147	155,883
Hispanic	38,688	30,462	44,934	7,371	121,455
White	335,229	312,710	493,123	46,781	1,187,843
Other/Missing	164,745	139,090	197,112	32,279	533,226
Total	617,339	519,394	768,096	93,578	1,998,407
Subprime Share					
Black	54.0%	44.4%	35.1%	12.1%	45.8%
Hispanic	32.4%	27.8%	16.6%	7.4%	23.9%
White	23.6%	17.6%	11.7%	8.9%	16.5%
Other/Missing	48.6%	35.2%	24.1%	8.9%	33.6%
Total	34.7%	24.8%	16.2%	9.0%	23.8%
Subprime Share					
Black	1.6	1.8	2.2	1.3	1.9
Hispanic	0.9	1.1	1.0	0.8	1.0
White	0.7	0.7	0.7	1.0	0.7
Other/Missing	1.4	1.4	1.5	1.0	1.4
Total	1.0	1.0	1.0	1.0	1.0

Table B.8

**2000 Refinance Lending for
Upper Income Black and Hispanic Borrowers
by Neighborhood Income**

	Low	Middle	Upper	All
	Subprime			
Black	3,713	4,806	3,048	11,572
Hispanic	1,730	3,360	2,344	7,437
White	5,989	28,823	22,773	57,594
Black	32.1%	41.5%	26.3%	100.0%
Hispanic	23.3%	45.2%	31.5%	100.0%
White	10.4%	50.0%	39.5%	100.0%
	All Loans			
Black	9,505	13,746	9,659	32,928
Hispanic	8,935	19,135	16,839	44,934
White	39,489	231,350	222,061	493,125
Black	28.9%	41.7%	29.3%	100.0%
Hispanic	19.9%	42.6%	37.5%	100.0%
White	8.0%	46.9%	45.0%	100.0%

Table B.9

Definitions of Census Tract Indicators

Variable Name	Definition	Expected Sign	Actual Sign 1997-2000	N	Mean	Standard Deviation	Minimum	Maximum
O_PCT	Owner-occupancy rate	-	-	44,460	57.51	23.39	0.10	100.00
MEDAGE	Median age of housing units	+	+	44,460	29.41	13.73	0.00	51.00
TEN8588	Percent of owner-occupied units where household moved in between 1985 and 1988	-	-	44,460	28.08	8.07	0.00	100.00
PUBLIC	Percent of households with public assistance	+	+	44,460	8.26	9.03	0.00	81.82
CAPITAL	The rate of return that amortizes a mortgage amount equal to the median valued home with a mortgage payment equal to the median rent	+	+	43,637	5.61	4.62	-12.47	70.00
DPMEDINC	The ratio of tract median family income to metropolitan family income	-	-	44,460	100.21	40.75	10.33	482.12
BLKPCT	The black percentage of the population	+	+	44,460	14.59	25.91	0.00	100.00
SUB_PCT_97	1997 subprime share of refinance applications			43,739	24.10	17.74	0.00	100.00
SUB_PCT_98	1998 subprime share of refinance applications			43,814	21.19	16.24	0.00	100.00
SUB_PCT_99	1999 subprime share of refinance applications			43,737	24.18	15.83	0.00	100.00
SUB_PCT_00	2000 subprime share of refinance applications			43,483	29.09	16.63	0.00	100.00

Table B.10**Correlation Coefficients for Subprime Refinance Share and Neighborhood Indicators**

	1997	1998	1999	2000
O_PCT	-0.20	-0.23	-0.21	-0.18
MEDAGE	0.28	0.32	0.26	0.20
TEN8588	-0.18	-0.25	-0.23	-0.19
PUBLIC	0.46	0.59	0.55	0.41
CAPITAL	0.32	0.46	0.47	0.36
DPMEDINC	-0.37	-0.45	-0.46	-0.38
BLKPCT	0.47	0.60	0.58	0.46

Table B.11**Correlation Coefficients for Neighborhood Indicators**

	O_PCT	MEDAGE	TEN8588	PUBLIC	CAPITAL	DPMEDINC	BLKPCT
O_PCT	1.00	-0.27	-0.12	-0.50	0.01	0.53	-0.34
MEDAGE	-0.27	1.00	-0.41	0.34	0.12	-0.29	0.22
TEN8588	-0.12	-0.41	1.00	-0.13	-0.14	0.11	-0.16
PUBLIC	-0.50	0.34	-0.13	1.00	0.31	-0.61	0.59
CAPITAL	0.01	0.12	-0.14	0.31	1.00	-0.42	0.31
DPMEDINC	0.53	-0.29	0.11	-0.61	-0.42	1.00	-0.42
BLKPCT	-0.34	0.22	-0.16	0.59	0.31	-0.42	1.00

Table B.12

Ordinary Least Squares Model

Parameter	Standard Estimate	Error	T	Prob > T	Beta
1997					
INTERCEP	13.0131	0.5942	43.7720	0.0001	0.0000
O_PCT	0.0335	0.0040	8.3860	0.0001	0.0432
MEDAGE	0.0486	0.0064	7.6160	0.0001	0.0382
TEN8588	-0.0490	0.0100	-4.8800	0.0001	-0.0215
PUBLIC	0.3356	0.0118	28.3750	0.0001	0.1648
CAPITAL	0.6833	0.0201	34.0800	0.0001	0.1792
LOW	2.7011	0.2009	13.4430	0.0001	0.0698
UPP	-2.3307	0.1703	-13.6870	0.0001	-0.0572
BLK1030	3.8742	0.2078	18.6470	0.0001	0.0736
BLK3050	7.9871	0.3284	24.3210	0.0001	0.0927
BLK5080	12.0249	0.3322	36.1990	0.0001	0.1435
BLK8000	16.7033	0.3343	49.9670	0.0001	0.2333
R-Squared	0.4775				
Adj R-Squared	0.4733				
1998					
INTERCEP	6.9959	0.4573	40.3960	0.0001	0.0000
O_PCT	0.0549	0.0031	17.8300	0.0001	0.0780
MEDAGE	0.0488	0.0049	9.8920	0.0001	0.0418
TEN8588	-0.0537	0.0077	-6.9320	0.0001	-0.0258
PUBLIC	0.4886	0.0090	54.1940	0.0001	0.2653
CAPITAL	0.7841	0.0154	51.0440	0.0001	0.2261
LOW	2.9144	0.1564	18.6390	0.0001	0.0823
UPP	-1.8356	0.1321	-13.8940	0.0001	-0.0491
BLK1030	2.6769	0.1610	16.6290	0.0001	0.0555
BLK3050	6.8521	0.2535	27.0340	0.0001	0.0873
BLK5080	12.0878	0.2563	47.1580	0.0001	0.1583
BLK8000	19.3082	0.2575	74.9760	0.0001	0.2968
R-Squared	0.6264				
Adj R-Squared	0.6234				

Table B.12

Ordinary Least Squares Model

Parameter	Standard Estimate	Error	T	Prob > T	Beta
1999					
INTERCEP	10.5128	0.4709	35.9340	0.0001	0.0000
O_PCT	0.0699	0.0032	22.0120	0.0001	0.1021
MEDAGE	0.0316	0.0051	6.2220	0.0001	0.0279
TEN8588	-0.0545	0.0080	-6.8300	0.0001	-0.0269
PUBLIC	0.4299	0.0093	46.2590	0.0001	0.2403
CAPITAL	0.7381	0.0158	46.7160	0.0001	0.2194
LOW	3.0550	0.1609	18.9870	0.0001	0.0888
UPP	-2.8280	0.1359	-20.8160	0.0001	-0.0780
BLK1030	3.3142	0.1658	19.9930	0.0001	0.0707
BLK3050	7.4211	0.2603	28.5050	0.0001	0.0976
BLK5080	12.2001	0.2640	46.2120	0.0001	0.1644
BLK8000	18.3031	0.2649	69.1000	0.0001	0.2900
R-Squared	0.5807				
Adj R-Squared	0.5774				
2000					
INTERCEP	17.6658	0.5845	50.5750	0.0001	0.0000
O_PCT	0.0606	0.0039	15.4060	0.0001	0.0836
MEDAGE	0.0133	0.0063	2.1130	0.0346	0.0111
TEN8588	-0.0328	0.0099	-3.3040	0.0010	-0.0153
PUBLIC	0.2630	0.0116	22.6870	0.0001	0.1385
CAPITAL	0.7801	0.0196	39.7440	0.0001	0.2192
LOW	2.1806	0.1986	10.9820	0.0001	0.0601
UPP	-3.8278	0.1674	-22.8650	0.0001	-0.1003
BLK1030	4.2456	0.2043	20.7780	0.0001	0.0860
BLK3050	7.9712	0.3222	24.7410	0.0001	0.0989
BLK5080	11.7982	0.3256	36.2350	0.0001	0.1510
BLK8000	15.2915	0.3270	46.7600	0.0001	0.2297
R-Squared	0.4284				
Adj R-Squared	0.4239				

Table C.1

**Share of Loans in 27 Metropolitan Areas
by Borrower Race or Ethnicity and Income**

	Low-Income	Middle-Income	Upper-Income	Missing Income	All
Subprime Refinance Loans in 27 Metropolitan Areas					
Black	24,255	9,019	6,261	535	40,070
Hispanic	4,887	3,504	2,890	298	11,579
White	25,567	17,609	17,896	1,627	62,699
Other/Missing	31,418	18,899	18,371	1,254	69,942
Total	86,127	49,031	45,418	3,714	184,290
All Refinance Loans in 27 Metropolitan Areas					
Black	44,794	20,115	17,111	4,660	86,680
Hispanic	16,793	12,574	11,358	3,129	43,854
White	113,494	104,361	160,563	18,101	396,519
Other/Missing	63,774	52,404	73,019	12,675	201,872
Total	238,855	189,454	262,051	38,565	728,925
Subprime Refinance Loans in All Metropolitan Areas					
Black	42,498	16,494	11,572	868	71,432
Hispanic	12,524	8,474	7,437	544	28,979
White	78,968	55,162	57,594	4,149	195,873
Other/Missing	80,043	48,922	47,466	2,868	179,299
Total	214,033	129,052	124,069	8,429	475,583
All Refinance Loans in All Metropolitan Areas					
Black	78,677	37,132	32,927	7,147	155,883
Hispanic	38,688	30,462	44,934	7,371	121,455
White	335,229	312,710	493,123	46,781	1,187,843
Other/Missing	164,745	139,090	197,112	32,279	533,226
Total	617,339	519,394	768,096	93,578	1,998,407
Share of Subprime Refinance Loans in 27 Metropolitan Areas					
Black	57.1%	54.7%	54.1%	61.6%	56.1%
Hispanic	39.0%	41.4%	38.9%	54.8%	40.0%
White	32.4%	31.9%	31.1%	39.2%	32.0%
Other/Missing	39.3%	38.6%	38.7%	43.7%	39.0%
Total	40.2%	38.0%	36.6%	44.1%	38.8%
Share of All Refinance Loans in 27 Metropolitan Areas					
Black	56.9%	54.2%	52.0%	65.2%	55.6%
Hispanic	43.4%	41.3%	25.3%	42.5%	36.1%
White	33.9%	33.4%	32.6%	38.7%	33.4%
Other/Missing	38.7%	37.7%	37.0%	39.3%	37.9%
Total	38.7%	36.5%	34.1%	41.2%	36.5%

Table C.2

Subprime Refinance Lending by Tract Black and Income Composition

	Subprime Refinances				Subprime Share				All Refinances			
	Low	Middle	Upper	All	Low	Middle	Upper	All	Low	Middle	Upper	All
Less than 30%	86	317	114	517	34.7%	30.1%	22.8%	28.7%	248	1,053	500	1,801
30-50%	13	30	0	43	44.8%	34.1%	NA	36.8%	29	88	0	117
50-80%	20	46	0	66	55.6%	56.8%	NA	56.4%	36	81	0	117
80-100%	6	71	0	77	40.0%	59.7%	NA	57.5%	15	119	0	134
Total	125	464	114	703	38.1%	34.6%	22.8%	32.4%	328	1,341	500	2,169
Kansas City (MSA=3760)												
Less than 30%	762	3,390	1,173	5,325	40.3%	30.4%	19.3%	27.8%	1,893	11,162	6,070	19,125
30-50%	204	14	0	218	53.7%	43.8%	NA	52.9%	380	32	0	412
50-80%	131	110	0	241	59.0%	58.2%	NA	58.6%	222	189	0	411
80-100%	997	23	0	1,020	65.5%	48.9%	NA	65.1%	1,521	47	0	1,568
Total	2,094	3,537	1,173	6,804	52.1%	30.9%	19.3%	31.6%	4,016	11,430	6,070	21,516
Los Angeles-Long Beach (PMSA=4480)												
Less than 30%	1,628	4,284	4,818	10,730	24.2%	21.8%	15.1%	18.4%	6,724	19,667	31,987	58,378
30-50%	502	148	26	676	36.2%	27.6%	21.5%	33.1%	1,385	536	121	2,042
50-80%	1,068	304	290	1,662	38.7%	38.2%	33.2%	37.5%	2,760	796	873	4,429
80-100%	133	319	116	568	38.9%	37.4%	32.9%	36.7%	342	853	353	1,548
Total	3,331	5,055	5,250	13,636	29.7%	23.1%	15.7%	20.5%	11,211	21,852	33,334	66,397
Memphis (MSA=4920)												
Less than 30%	14	511	825	1,350	29.2%	27.8%	25.8%	26.5%	48	1,841	3,198	5,087
30-50%	190	314	8	512	46.2%	36.1%	34.8%	39.3%	411	869	23	1,303
50-80%	114	206	0	320	48.7%	53.2%	NA	51.5%	234	387	0	621
80-100%	999	198	4	1,201	64.5%	68.3%	80.0%	65.1%	1,550	290	5	1,845
Total	1,317	1,229	837	3,383	58.7%	36.3%	25.9%	38.2%	2,243	3,387	3,226	8,856
Miami (PMSA=5000)												
Less than 30%	410	1,212	1,356	2,978	38.7%	39.1%	29.5%	34.0%	1,059	3,096	4,596	8,751
30-50%	55	332	71	458	39.3%	54.5%	55.9%	52.3%	140	609	127	876
50-80%	280	457	53	790	59.3%	59.6%	51.5%	58.9%	472	767	103	1,342
80-100%	403	203	33	639	60.3%	60.6%	55.0%	60.1%	668	335	60	1,063
Total	1,148	2,204	1,513	4,865	49.1%	45.8%	31.0%	40.4%	2,339	4,807	4,886	12,032
Milwaukee-Waukesha (PMSA=5080)												
Less than 30%	295	1,214	363	1,872	27.1%	18.0%	8.5%	15.5%	1,090	6,728	4,263	12,081
30-50%	114	12	0	126	40.1%	29.3%	NA	38.8%	284	41	0	325
50-80%	214	15	0	229	42.7%	39.5%	NA	42.5%	501	38	0	539
80-100%	419	0	0	419	50.6%	NA	NA	50.6%	828	0	0	828
Total	1,042	1,241	363	2,646	38.5%	18.2%	8.5%	19.2%	2,703	6,807	4,263	13,773
Minneapolis-St. Paul (MSA=5120)												
Less than 30%	1,510	4,270	940	6,720	31.8%	16.5%	11.3%	17.2%	4,741	25,895	8,350	38,986
30-50%	195	27	0	222	47.0%	31.8%	NA	44.4%	415	85	0	500
50-80%	125	13	0	138	49.2%	31.7%	NA	46.8%	254	41	0	295
80-100%	31	0	0	31	53.4%	NA	NA	53.4%	58	0	0	58
Total	1,861	4,310	940	7,111	34.0%	16.6%	11.3%	17.8%	5,468	26,021	8,350	39,839
Nashville (MSA=5360)												
Less than 30%	429	1,948	452	2,829	30.4%	27.6%	18.3%	25.9%	1,409	7,062	2,468	10,939
30-50%	138	28	0	166	43.1%	40.0%	NA	42.6%	320	70	0	390
50-80%	151	130	0	281	49.0%	49.2%	NA	49.1%	308	264	0	572
80-100%	209	0	0	209	40.3%	NA	NA	40.3%	518	0	0	518
Total	927	2,106	452	3,485	36.3%	28.5%	18.3%	28.1%	2,555	7,396	2,468	12,419
Nassau-Suffolk (PMSA=5380)												
Less than 30%	995	4,737	769	6,501	36.4%	32.1%	24.8%	31.6%	2,730	14,736	3,102	20,568
30-50%	87	229	23	339	52.4%	48.8%	47.9%	49.6%	166	469	48	683
50-80%	172	205	0	377	56.8%	55.7%	NA	56.2%	303	368	0	671
80-100%	145	156	0	301	62.5%	58.6%	NA	60.4%	232	266	0	498
Total	1,399	5,327	792	7,518	40.8%	33.6%	25.1%	33.5%	3,431	15,839	3,150	22,420
New Orleans (MSA=5560)												
Less than 30%	129	862	760	1,751	27.6%	24.7%	19.6%	22.4%	467	3,494	3,870	7,831
30-50%	101	253	53	407	34.7%	31.8%	36.6%	33.1%	291	795	145	1,231
50-80%	225	216	34	475	40.8%	44.0%	55.7%	43.1%	551	491	61	1,103
80-100%	613	45	38	696	54.0%	53.6%	45.2%	53.4%	1,135	84	84	1,303
Total	1,068	1,376	885	3,329	43.7%	28.3%	21.3%	29.0%	2,444	4,864	4,160	11,468
New York (PMSA=5600)												
Less than 30%	652	1,582	3,032	5,266	44.7%	33.9%	24.7%	28.6%	1,460	4,673	12,294	18,427

Table C.2

Subprime Refinance Lending by Tract Black and Income Composition

	Subprime Refinances				Subprime Share				All Refinances			
	Low	Middle	Upper	All	Low	Middle	Upper	All	Low	Middle	Upper	All
30-50%	246	270	188	704	50.8%	48.0%	43.4%	47.6%	484	563	433	1,480
50-80%	470	419	258	1,147	59.8%	48.1%	51.4%	53.1%	786	871	502	2,159
80-100%	673	866	591	2,130	59.9%	58.6%	53.9%	57.6%	1,123	1,477	1,097	3,697
Total	2,041	3,137	4,069	9,247	53.0%	41.4%	28.4%	35.9%	3,853	7,584	14,326	25,763
Oakland (PMSA=5775)												
Less than 30%	927	3,207	1,424	5,558	28.0%	20.2%	12.6%	18.2%	3,316	15,853	11,320	30,489
30-50%	233	67	36	336	30.8%	30.9%	14.9%	27.6%	757	217	242	1,216
50-80%	668	175	22	865	38.2%	35.0%	22.0%	36.8%	1,750	500	100	2,350
80-100%	363	2	0	365	43.8%	40.0%	NA	43.8%	829	5	0	834
Total	2,191	3,451	1,482	7,124	32.9%	20.8%	12.7%	20.4%	6,652	16,575	11,662	34,889
Philadelphia (PMSA=6160)												
Less than 30%	1,064	3,629	1,953	6,646	40.4%	23.8%	16.1%	22.1%	2,632	15,237	12,147	30,016
30-50%	395	203	35	633	51.6%	37.4%	34.7%	44.9%	766	543	101	1,410
50-80%	416	266	38	720	49.8%	48.5%	46.9%	49.1%	835	549	81	1,465
80-100%	2,066	546	0	2,612	71.4%	62.0%	NA	69.2%	2,893	881	0	3,774
Total	3,941	4,644	2,026	10,611	55.3%	27.0%	16.4%	28.9%	7,126	17,210	12,329	36,665
St. Louis (MSA=7040)												
Less than 30%	1,069	4,673	2,137	7,879	36.9%	27.7%	21.9%	26.7%	2,896	16,891	9,765	29,552
30-50%	152	250	6	408	37.1%	35.1%	18.2%	35.3%	410	713	33	1,156
50-80%	404	402	98	904	46.8%	48.1%	49.2%	47.6%	864	836	199	1,899
80-100%	1,336	98	0	1,434	54.1%	40.3%	NA	52.9%	2,468	243	0	2,711
Total	2,961	5,423	2,241	10,625	44.6%	29.0%	22.4%	30.1%	6,638	18,683	9,997	35,318
Washington, DC (PMSA=8840)												
Less than 30%	933	2,427	1,191	4,551	21.6%	16.7%	11.1%	15.4%	4,314	14,557	10,701	29,572
30-50%	105	325	55	485	19.3%	22.7%	25.5%	22.1%	545	1,430	216	2,191
50-80%	169	375	152	696	27.8%	30.0%	26.2%	28.5%	608	1,250	580	2,438
80-100%	937	302	17	1,256	36.6%	35.8%	26.6%	36.2%	2,560	844	64	3,468
Total	2,144	3,429	1,415	6,988	26.7%	19.0%	12.2%	18.6%	8,027	18,081	11,561	37,669
All 27 Metropolitan Areas												
Less than 30%	23,462	69,214	36,091	128,767	30.2%	22.7%	15.8%	21.1%	77,566	305,521	227,974	611,061
30-50%	4,604	4,091	818	9,513	39.2%	36.1%	35.0%	37.4%	11,741	11,336	2,335	25,412
50-80%	7,709	6,005	1,427	15,141	45.1%	43.9%	39.0%	43.9%	17,108	13,693	3,662	34,463
80-100%	22,898	6,833	1,058	30,789	54.7%	50.8%	47.7%	53.5%	41,897	13,440	2,218	57,555
Total	58,673	86,143	39,394	184,210	39.6%	25.0%	16.7%	25.3%	148,312	343,990	236,189	728,491

Table C.3

Subprime Refinance Lending by Borrower Black and Income Composition

	Subprime Refinances					Subprime Share					All Refinances				
	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All
Atlanta (MSA=0520)															
Black	1,674	653	408	44	2,779	46.6%	36.2%	28.6%	9.5%	38.2%	3,589	1,802	1,428	465	7,284
Hispanic	42	24	10	11	87	23.9%	23.3%	10.5%	20.8%	20.4%	176	103	95	53	427
White	1,281	687	676	70	2,714	18.4%	13.1%	9.1%	8.1%	13.2%	6,945	5,249	7,460	868	20,522
Other/Missing	2,823	1,646	1,327	61	5,857	60.0%	50.9%	37.8%	11.4%	48.9%	4,702	3,235	3,507	533	11,977
Total	5,820	3,010	2,421	186	11,437	37.8%	29.0%	19.4%	9.7%	28.4%	15,412	10,389	12,490	1,919	40,210
Baltimore (PMSA=0720)															
Black	700	220	168	11	1,099	49.1%	38.4%	32.6%	2.3%	36.8%	1,427	573	515	471	2,986
Hispanic	16	8	11	2	37	34.8%	28.6%	31.4%	7.7%	27.4%	46	28	35	26	135
White	748	469	486	50	1,753	22.1%	16.6%	12.3%	4.5%	15.6%	3,379	2,832	3,953	1,099	11,263
Other/Missing	1,075	456	416	23	1,970	50.9%	32.6%	24.3%	7.3%	35.6%	2,113	1,398	1,713	313	5,537
Total	2,539	1,153	1,081	86	4,859	36.5%	23.9%	17.4%	4.5%	24.4%	6,965	4,831	6,216	1,909	19,921
Bergen-Passaic (PMSA=0875)															
Black	83	44	34	2	163	48.8%	40.4%	35.4%	6.1%	40.0%	170	109	96	33	408
Hispanic	66	54	32	12	164	28.6%	27.7%	23.7%	15.6%	25.7%	231	195	135	77	638
White	241	231	290	16	778	24.7%	19.1%	15.2%	6.0%	17.8%	974	1,211	1,911	265	4,361
Other/Missing	250	259	274	21	804	39.9%	33.5%	24.0%	6.0%	27.8%	627	774	1,141	352	2,894
Total	640	588	630	51	1,909	32.0%	25.7%	19.2%	7.0%	23.0%	2,002	2,289	3,283	727	8,301
Boston (PMSA=1120)															
Black	208	174	99	8	489	46.3%	43.7%	34.7%	16.3%	41.4%	449	398	285	49	1,181
Hispanic	66	56	31	8	161	29.3%	29.2%	29.8%	17.0%	28.3%	225	192	104	47	568
White	1,103	1,118	1,068	103	3,392	19.4%	17.5%	11.2%	10.8%	15.1%	5,681	6,380	9,513	954	22,528
Other/Missing	833	792	689	56	2,370	42.4%	38.1%	24.6%	5.4%	30.1%	1,964	2,077	2,797	1,042	7,880
Total	2,210	2,140	1,887	175	6,412	26.6%	23.7%	14.9%	8.4%	19.9%	8,319	9,047	12,699	2,092	32,157
Chicago (PMSA=1600)															
Black	4,085	1,237	568	75	5,965	55.2%	44.7%	34.7%	15.0%	48.5%	7,406	2,770	1,635	499	12,310
Hispanic	1,089	464	152	30	1,735	23.6%	20.2%	16.5%	7.2%	21.0%	4,620	2,299	921	414	8,254
White	2,595	1,810	1,367	117	5,889	20.0%	13.9%	7.4%	6.0%	12.7%	12,943	13,022	18,486	1,935	46,386
Other/Missing	2,428	1,201	967	67	4,663	39.7%	24.3%	16.8%	7.0%	26.2%	6,119	4,940	5,767	953	17,779
Total	10,197	4,712	3,054	289	18,252	32.8%	20.5%	11.4%	7.6%	21.5%	31,088	23,031	26,809	3,801	84,729
Cleveland-Lorain-Elyria (PMSA=1680)															
Black	1,304	392	224	8	1,928	60.2%	50.5%	45.0%	12.3%	55.0%	2,165	776	498	65	3,504
Hispanic	107	18	10	3	138	45.3%	22.2%	27.8%	37.5%	38.2%	236	81	36	8	361
White	1,536	763	537	26	2,862	30.3%	20.6%	14.1%	6.6%	22.1%	5,070	3,712	3,802	394	12,978
Other/Missing	1,714	719	443	31	2,907	53.8%	38.3%	25.6%	18.1%	41.7%	3,186	1,879	1,733	171	6,969
Total	4,661	1,892	1,214	68	7,835	43.7%	29.3%	20.0%	10.7%	32.9%	10,657	6,448	6,069	638	23,812

Table C.3

Subprime Refinance Lending by Borrower Black and Income Composition

	Subprime Refinances					Subprime Share					All Refinances				
	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All
Dallas (PMSA=1920)															
Black	466	174	137	11	788	69.9%	54.9%	36.2%	9.9%	53.5%	667	317	378	111	1,473
Hispanic	223	100	52	5	380	32.0%	30.3%	24.1%	8.6%	29.2%	697	330	216	58	1,301
White	706	474	585	41	1,806	34.0%	24.0%	13.0%	7.8%	19.9%	2,076	1,978	4,507	524	9,085
Other/Missing	701	347	276	13	1,337	56.9%	40.7%	21.1%	7.3%	37.4%	1,233	852	1,310	177	3,572
Total	2,096	1,095	1,050	70	4,311	44.9%	31.5%	16.4%	8.0%	27.9%	4,673	3,477	6,411	870	15,431
Denver (PMSA=2080)															
Black	349	190	128	5	672	44.2%	40.9%	38.4%	8.3%	40.8%	790	465	333	60	1,648
Hispanic	645	333	135	10	1,123	34.4%	32.6%	27.1%	5.3%	31.3%	1,876	1,021	499	188	3,584
White	1,399	1,172	951	64	3,586	20.4%	17.6%	11.7%	5.7%	15.8%	6,847	6,642	8,104	1,128	22,721
Other/Missing	740	597	514	52	1,903	28.7%	21.9%	17.6%	11.4%	21.9%	2,575	2,726	2,918	456	8,675
Total	3,133	2,292	1,728	131	7,284	25.9%	21.1%	14.6%	7.2%	19.9%	12,088	10,854	11,854	1,832	36,628
Detroit (PMSA=2160)															
Black	4,588	1,164	719	71	6,542	54.7%	42.8%	37.4%	22.3%	49.0%	8,391	2,719	1,922	318	13,350
Hispanic	98	42	21	4	165	31.2%	30.7%	25.3%	14.8%	29.4%	314	137	83	27	561
White	3,065	1,615	1,289	109	6,078	21.4%	14.0%	9.2%	7.5%	14.7%	14,355	11,527	13,994	1,461	41,337
Other/Missing	3,039	1,331	1,079	83	5,532	47.6%	35.6%	24.9%	18.4%	37.1%	6,389	3,738	4,336	450	14,913
Total	10,790	4,152	3,108	267	18,317	36.6%	22.9%	15.3%	11.8%	26.1%	29,449	18,121	20,335	2,256	70,161
Houston (PMSA=3360)															
Black	655	317	272	3	1,247	73.7%	62.0%	50.1%	4.3%	62.0%	889	511	543	69	2,012
Hispanic	461	223	148	2	834	39.0%	36.7%	29.0%	2.2%	34.9%	1,183	607	511	91	2,392
White	723	551	730	14	2,018	43.8%	31.1%	17.7%	3.2%	25.3%	1,650	1,772	4,118	439	7,979
Other/Missing	679	414	360	8	1,461	56.8%	43.8%	24.4%	3.8%	38.2%	1,196	946	1,473	213	3,828
Total	2,518	1,505	1,510	27	5,560	51.2%	39.2%	22.7%	3.3%	34.3%	4,918	3,836	6,645	812	16,211
Jersey City (PMSA=3640)															
Black	43	30	28	1	102	54.4%	52.6%	45.9%	5.9%	47.7%	79	57	61	17	214
Hispanic	17	31	41	13	102	26.6%	29.8%	22.9%	27.1%	25.8%	64	104	179	48	395
White	50	35	49	13	147	49.0%	27.1%	13.1%	19.4%	21.9%	102	129	373	67	671
Other/Missing	99	77	152	24	352	56.9%	39.9%	37.8%	19.5%	39.5%	174	193	402	123	892
Total	209	173	270	51	703	49.9%	35.8%	26.6%	20.0%	32.4%	419	483	1,015	255	2,172
Kansas City (MSA=3760)															
Black	781	197	128	6	1,112	65.8%	54.1%	42.7%	12.5%	58.6%	1,187	364	300	48	1,899
Hispanic	66	18	11	1	96	42.9%	36.0%	24.4%	9.1%	36.9%	154	50	45	11	260
White	1,292	721	552	22	2,587	27.3%	19.8%	11.4%	5.6%	19.1%	4,730	3,637	4,821	390	13,578
Other/Missing	1,574	826	594	18	3,012	64.5%	53.0%	37.4%	8.7%	52.0%	2,442	1,558	1,587	208	5,795
Total	3,713	1,762	1,285	47	6,807	43.6%	31.4%	19.0%	7.2%	31.6%	8,513	5,609	6,753	657	21,532

Table C.3

Subprime Refinance Lending by Borrower Black and Income Composition

	Subprime Refinances					Subprime Share					All Refinances				
	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All
Los Angeles-Long Beach (PMSA=4480)															
Black	684	683	823	24	2,214	45.5%	45.8%	36.0%	9.4%	40.0%	1,504	1,491	2,283	256	5,534
Hispanic	713	1,017	1,085	45	2,860	23.3%	25.6%	25.5%	3.6%	22.8%	3,062	3,972	4,263	1,241	12,538
White	687	1,016	2,668	113	4,484	22.9%	21.9%	14.6%	8.6%	16.5%	2,994	4,629	18,279	1,309	27,211
Other/Missing	661	997	2,343	77	4,078	29.1%	23.0%	17.8%	5.8%	19.3%	2,273	4,335	13,174	1,336	21,118
Total	2,745	3,713	6,919	259	13,636	27.9%	25.7%	18.2%	6.3%	20.5%	9,833	14,427	37,999	4,142	66,401
Memphis (MSA=4920)															
Black	963	320	185	10	1,478	65.9%	55.0%	40.3%	16.7%	57.7%	1,462	582	459	60	2,563
Hispanic	6	5	4		15	60.0%	62.5%	33.3%	0.0%	44.1%	10	8	12	4	34
White	280	175	168	8	631	28.3%	19.2%	9.0%	6.5%	16.2%	988	913	1,862	123	3,886
Other/Missing	664	299	274	22	1,259	66.4%	51.6%	39.7%	21.6%	53.1%	1,000	580	691	102	2,373
Total	1,913	799	631	40	3,383	55.3%	38.4%	20.9%	13.8%	38.2%	3,460	2,083	3,024	289	8,856
Miami (PMSA=5000)															
Black	495	364	310	8	1,177	64.0%	56.9%	48.1%	17.8%	56.0%	773	640	645	45	2,103
Hispanic	429	515	676	30	1,650	40.5%	37.8%	28.9%	13.9%	33.2%	1,060	1,364	2,336	216	4,976
White	107	162	243	4	516	38.5%	34.2%	18.6%	4.9%	24.2%	278	473	1,304	81	2,136
Other/Missing	461	471	578	12	1,522	73.8%	64.2%	44.2%	8.0%	54.0%	625	734	1,308	150	2,817
Total	1,492	1,512	1,807	54	4,865	54.5%	47.1%	32.3%	11.0%	40.4%	2,736	3,211	5,593	492	12,032
Milwaukee-Waukesha (PMSA=5080)															
Black	413	99	53	2	567	51.8%	38.2%	29.9%	10.5%	45.3%	797	259	177	19	1,252
Hispanic	51	9	4		64	27.9%	13.8%	12.5%	0.0%	22.0%	183	65	32	11	291
White	514	308	171	9	1,002	17.0%	11.0%	5.0%	3.5%	10.5%	3,025	2,808	3,436	257	9,526
Other/Missing	555	261	193	4	1,013	50.8%	35.6%	25.8%	3.0%	37.4%	1,092	733	749	135	2,709
Total	1,533	677	421	15	2,646	30.1%	17.5%	9.6%	3.6%	19.2%	5,097	3,865	4,394	422	13,778
Minneapolis-St. Paul (MSA=5120)															
Black	411	107	46	4	568	59.7%	46.1%	36.8%	20.0%	53.3%	688	232	125	20	1,065
Hispanic	47	15	9		71	27.3%	19.7%	18.8%	0.0%	23.4%	172	76	48	7	303
White	2,409	1,323	707	30	4,469	20.7%	13.9%	8.9%	3.9%	15.0%	11,614	9,518	7,983	776	29,891
Other/Missing	1,099	575	307	22	2,003	32.8%	20.7%	14.2%	7.5%	23.3%	3,349	2,777	2,162	294	8,582
Total	3,966	2,020	1,069	56	7,111	25.1%	16.0%	10.4%	5.1%	17.8%	15,823	12,603	10,318	1,097	39,841
Nashville (MSA=5360)															
Black	415	114	48	3	580	53.7%	39.7%	30.0%	4.8%	45.2%	773	287	160	62	1,282
Hispanic	11	1	5		17	30.6%	11.1%	31.3%	0.0%	26.2%	36	9	16	4	65
White	877	418	275	13	1,583	26.9%	19.3%	11.7%	3.9%	19.5%	3,260	2,169	2,358	335	8,122
Other/Missing	729	332	237	7	1,305	54.3%	41.1%	33.9%	6.9%	44.2%	1,342	807	700	101	2,950
Total	2,032	865	565	23	3,485	37.6%	26.4%	17.5%	4.6%	28.1%	5,411	3,272	3,234	502	12,419

Table C.3

Subprime Refinance Lending by Borrower Black and Income Composition

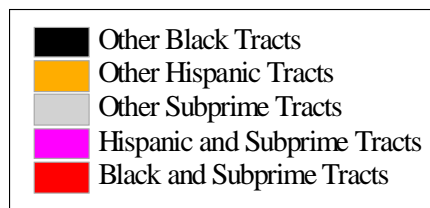
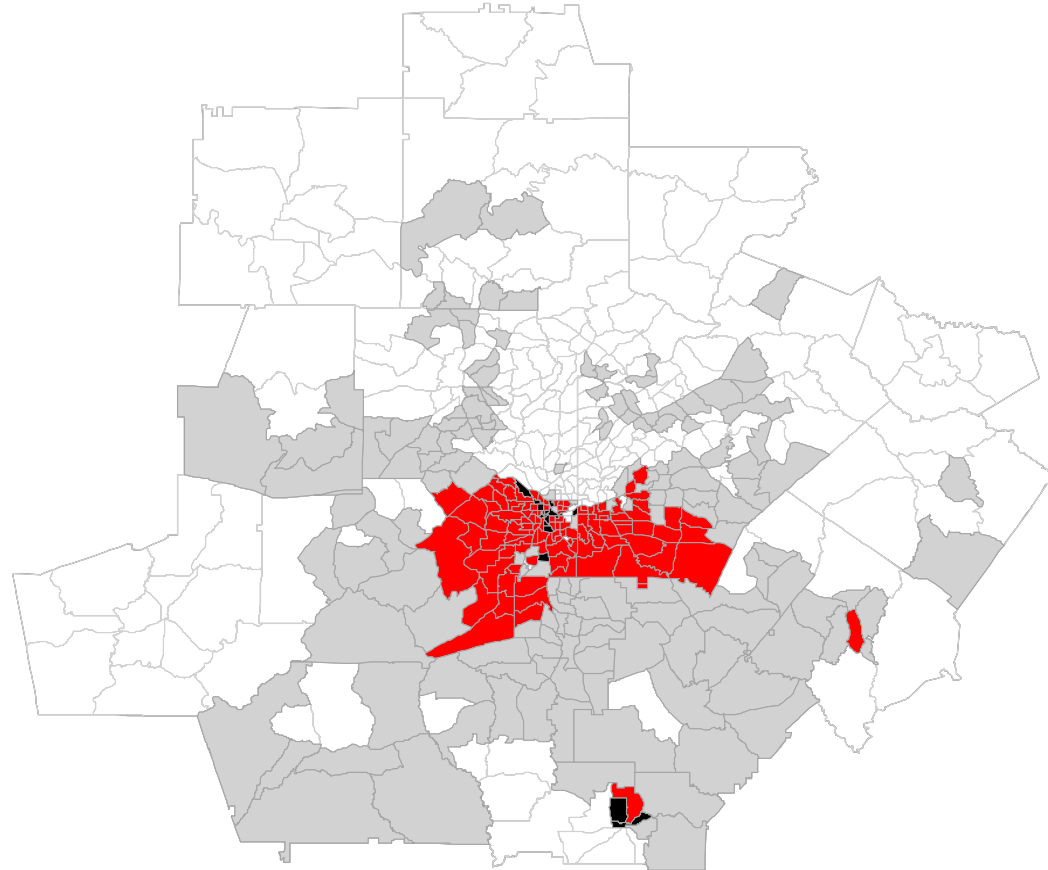
	Subprime Refinances					Subprime Share					All Refinances				
	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All
Nassau-Suffolk (PMSA=5380)															
Black	290	186	88	34	598	55.2%	54.5%	40.9%	41.0%	51.4%	525	341	215	83	1,164
Hispanic	102	60	29	23	214	34.8%	28.4%	28.4%	25.8%	30.8%	293	211	102	89	695
White	1,049	928	817	269	3,063	31.0%	25.6%	18.6%	27.7%	24.7%	3,387	3,632	4,398	971	12,388
Other/Missing	1,504	1,149	856	137	3,646	61.3%	50.0%	38.9%	11.1%	44.6%	2,453	2,298	2,201	1,231	8,183
Total	2,945	2,323	1,790	463	7,521	44.2%	35.8%	25.9%	19.5%	33.5%	6,658	6,482	6,916	2,374	22,430
New Orleans (MSA=5560)															
Black	534	302	305	11	1,152	57.9%	49.0%	39.4%	24.4%	48.8%	923	616	775	45	2,359
Hispanic	33	17	13	2	65	44.6%	25.4%	18.1%	33.3%	29.7%	74	67	72	6	219
White	319	243	335	7	904	24.2%	16.6%	10.2%	3.7%	14.5%	1,318	1,463	3,287	187	6,255
Other/Missing	489	348	370	1	1,208	61.4%	50.1%	36.2%	0.8%	45.8%	797	694	1,022	124	2,637
Total	1,375	910	1,023	21	3,329	44.2%	32.0%	19.8%	5.8%	29.0%	3,112	2,840	5,156	362	11,470
New York (PMSA=5600)															
Black	543	628	533	114	1,818	55.9%	51.2%	42.2%	36.3%	48.1%	972	1,226	1,264	314	3,776
Hispanic	114	139	161	82	496	37.5%	35.2%	30.0%	45.1%	35.0%	304	395	536	182	1,417
White	301	465	998	331	2,095	30.0%	25.0%	16.7%	33.5%	21.3%	1,003	1,860	5,989	987	9,839
Other/Missing	1,046	1,486	2,012	310	4,854	63.4%	55.4%	40.8%	20.8%	45.1%	1,651	2,684	4,937	1,492	10,764
Total	2,004	2,718	3,704	837	9,263	51.0%	44.1%	29.1%	28.1%	35.9%	3,930	6,165	12,726	2,975	25,796
Oakland (PMSA=5775)															
Black	573	395	336	10	1,314	48.3%	41.4%	33.9%	11.1%	40.8%	1,186	954	990	90	3,220
Hispanic	246	276	213	8	743	25.4%	29.2%	25.8%	8.5%	26.2%	968	946	825	94	2,833
White	585	753	1,042	38	2,418	20.6%	18.6%	12.2%	8.2%	15.2%	2,836	4,056	8,572	464	15,928
Other/Missing	702	830	1,078	49	2,659	31.5%	23.7%	16.2%	8.0%	20.5%	2,230	3,495	6,636	616	12,977
Total	2,106	2,254	2,669	105	7,134	29.2%	23.8%	15.7%	8.3%	20.4%	7,220	9,451	17,023	1,264	34,958
Philadelphia (PMSA=6160)															
Black	1,348	303	167	13	1,831	65.1%	49.9%	33.4%	8.6%	55.0%	2,072	607	500	152	3,331
Hispanic	129	36	22	2	189	45.3%	33.0%	23.9%	7.1%	36.8%	285	109	92	28	514
White	1,387	828	908	44	3,167	26.4%	17.1%	10.9%	4.6%	16.3%	5,250	4,830	8,346	960	19,386
Other/Missing	3,151	1,177	1,026	75	5,429	59.7%	37.3%	23.8%	10.5%	40.4%	5,281	3,153	4,305	713	13,452
Total	6,015	2,344	2,123	134	10,616	46.7%	26.9%	16.0%	7.2%	28.9%	12,888	8,699	13,243	1,853	36,683
St. Louis (MSA=7040)															
Black	1,502	301	187	18	2,008	54.7%	40.2%	33.8%	17.6%	48.4%	2,744	749	553	102	4,148
Hispanic	22	4	2		28	32.8%	18.2%	7.4%	0.0%	23.9%	67	22	27	1	117
White	1,341	823	550	29	2,743	19.5%	14.9%	7.3%	4.5%	13.3%	6,890	5,528	7,572	648	20,638
Other/Missing	2,766	1,609	1,446	26	5,847	62.8%	59.2%	52.2%	4.9%	56.1%	4,402	2,716	2,769	530	10,417
Total	5,631	2,737	2,185	73	10,626	39.9%	30.4%	20.0%	5.7%	30.1%	14,103	9,015	10,921	1,281	35,320

Table C.3

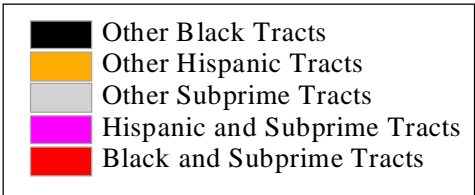
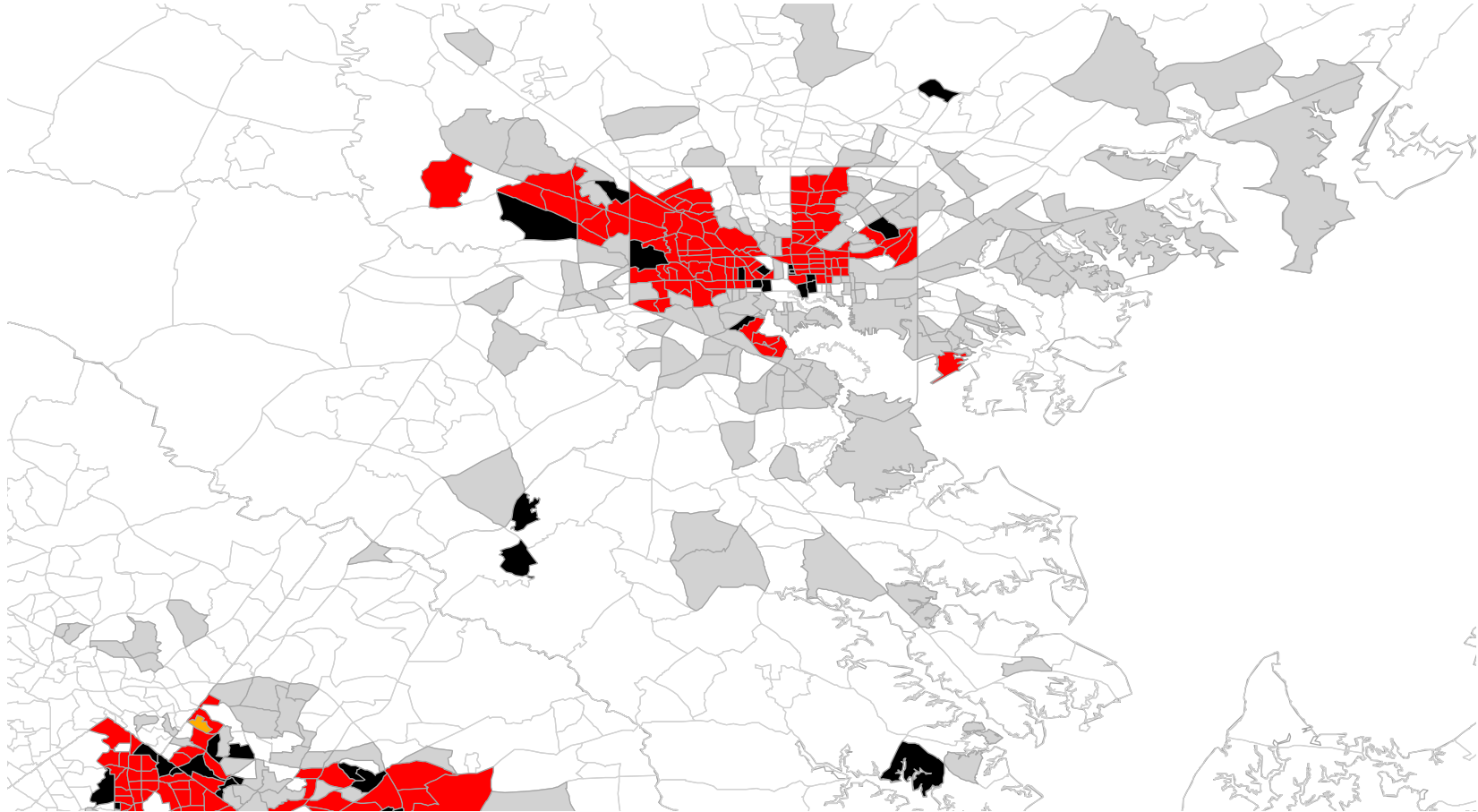
Subprime Refinance Lending by Borrower Black and Income Composition

	Subprime Refinances					Subprime Share					All Refinances				
	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All	Low	Middle	Upper	Missing	All
Washington, DC (PMSA=8840)															
Black	1,148	425	267	39	1,879	36.3%	33.5%	27.5%	3.2%	28.4%	3,166	1,270	971	1,207	6,614
Hispanic	88	39	13	5	145	19.3%	21.3%	9.4%	2.5%	14.9%	457	183	138	198	976
White	972	521	434	87	2,014	16.5%	11.9%	7.1%	5.9%	11.2%	5,899	4,391	6,135	1,479	17,904
Other/Missing	1,636	700	560	55	2,951	35.9%	22.7%	15.2%	6.4%	24.2%	4,559	3,082	3,681	860	12,182
Total	3,844	1,685	1,274	186	6,989	27.3%	18.9%	11.7%	5.0%	18.6%	14,081	8,926	10,925	3,744	37,676
All 27 Metropolitan Areas															
Black	24,255	9,019	6,261	535	40,070	54.1%	44.8%	36.6%	11.5%	46.2%	44,794	20,115	17,111	4,660	86,680
Hispanic	4,887	3,504	2,890	298	11,579	29.1%	27.9%	25.4%	9.5%	26.4%	16,793	12,574	11,358	3,129	43,854
White	25,567	17,609	17,896	1,627	62,699	22.5%	16.9%	11.1%	9.0%	15.8%	113,494	104,361	160,563	18,101	396,519
Other/Missing	31,418	18,899	18,371	1,254	69,942	49.3%	36.1%	25.2%	9.9%	34.6%	63,774	52,404	73,019	12,675	201,872
Total	86,127	49,031	45,418	3,714	184,290	36.1%	25.9%	17.3%	9.6%	25.3%	238,855	189,454	262,051	38,565	728,925

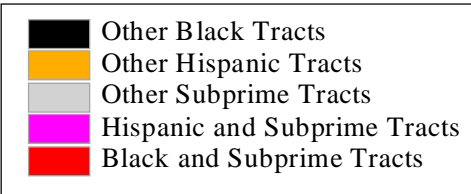
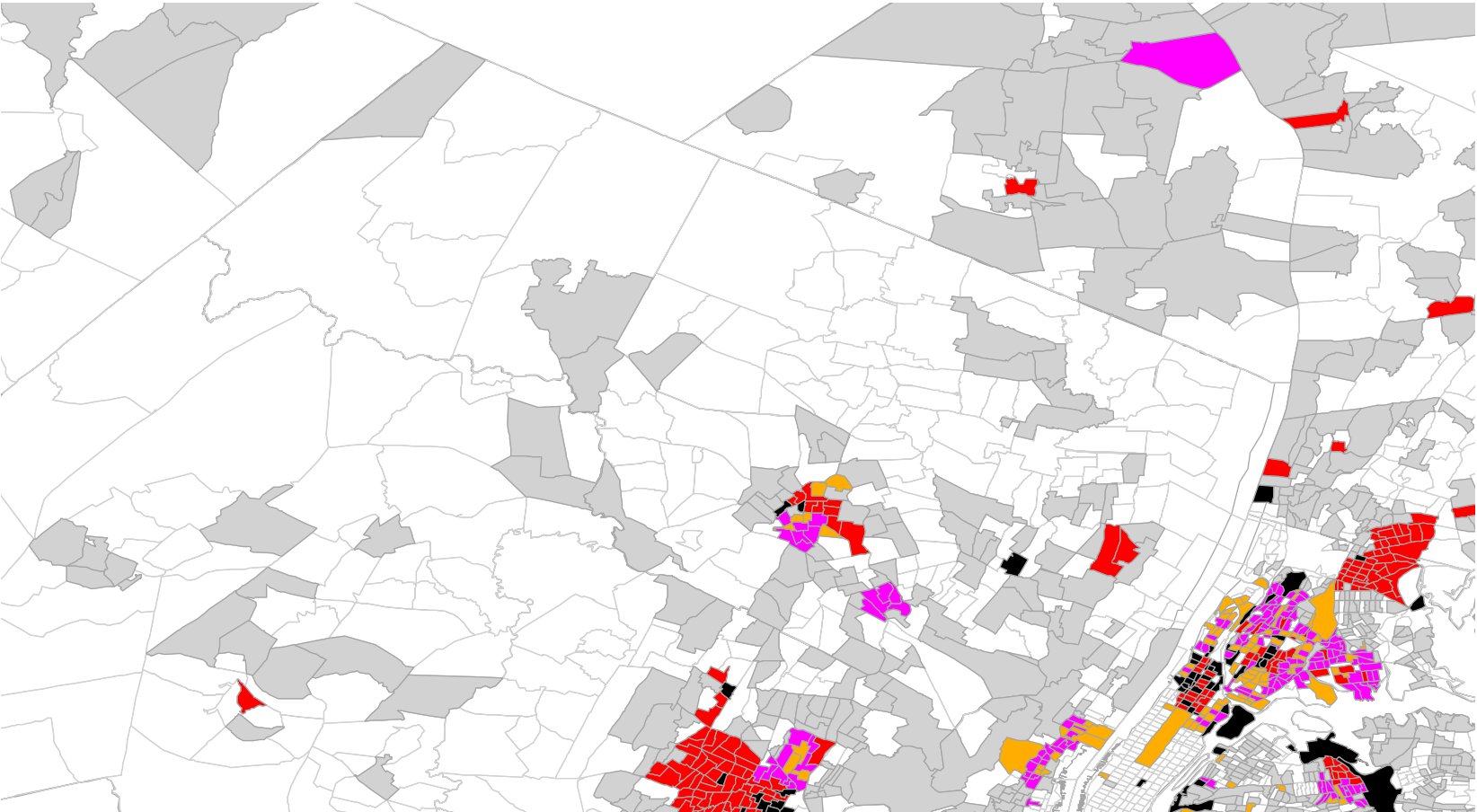
Subprime Refinance Market in Atlanta Metropolitan Area



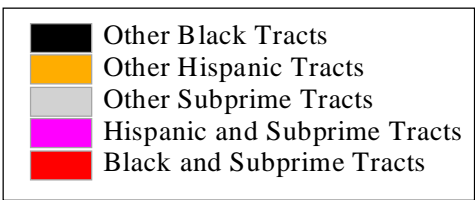
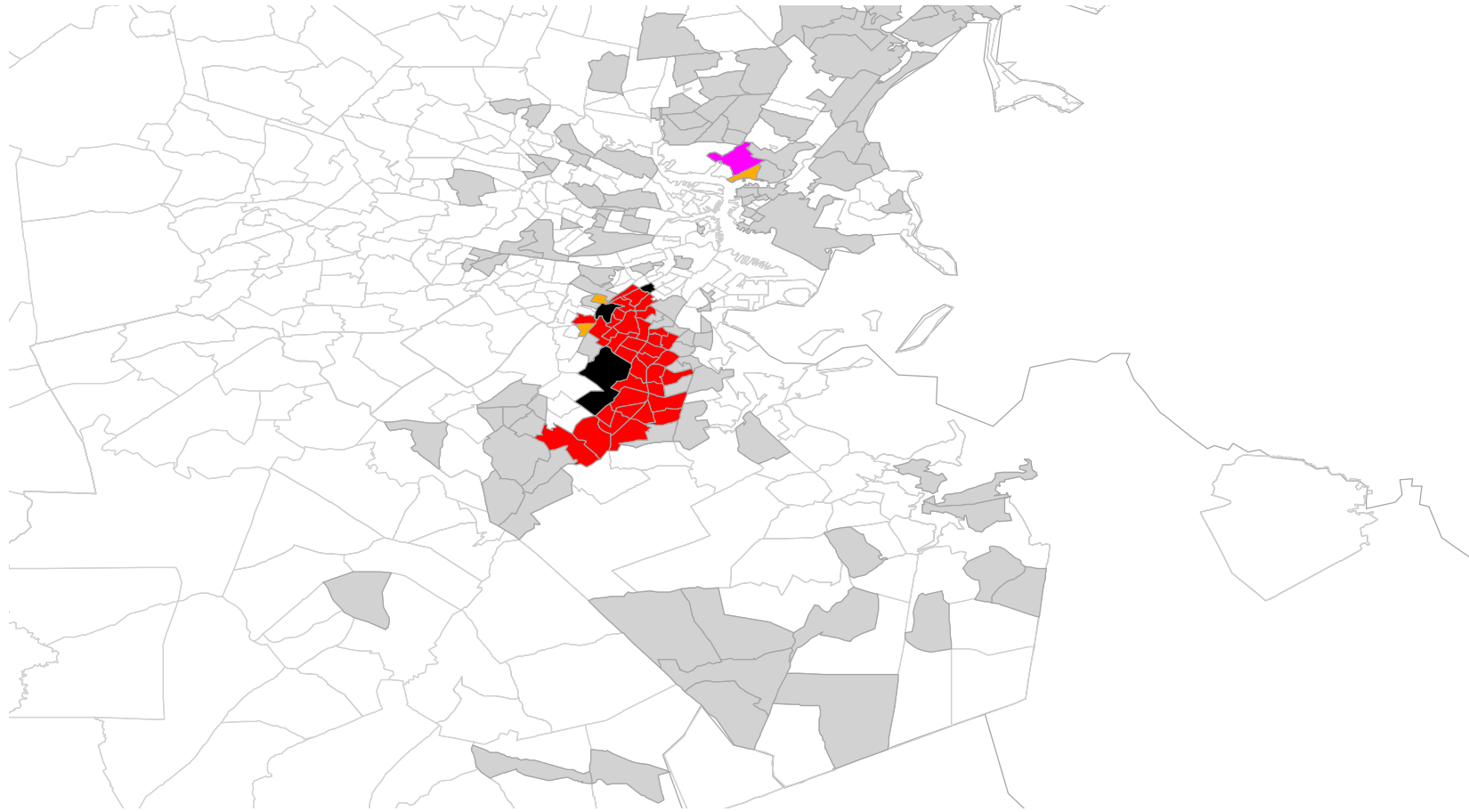
Subprime Refinance Market in Baltimore Metropolitan Area



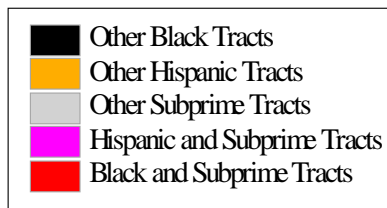
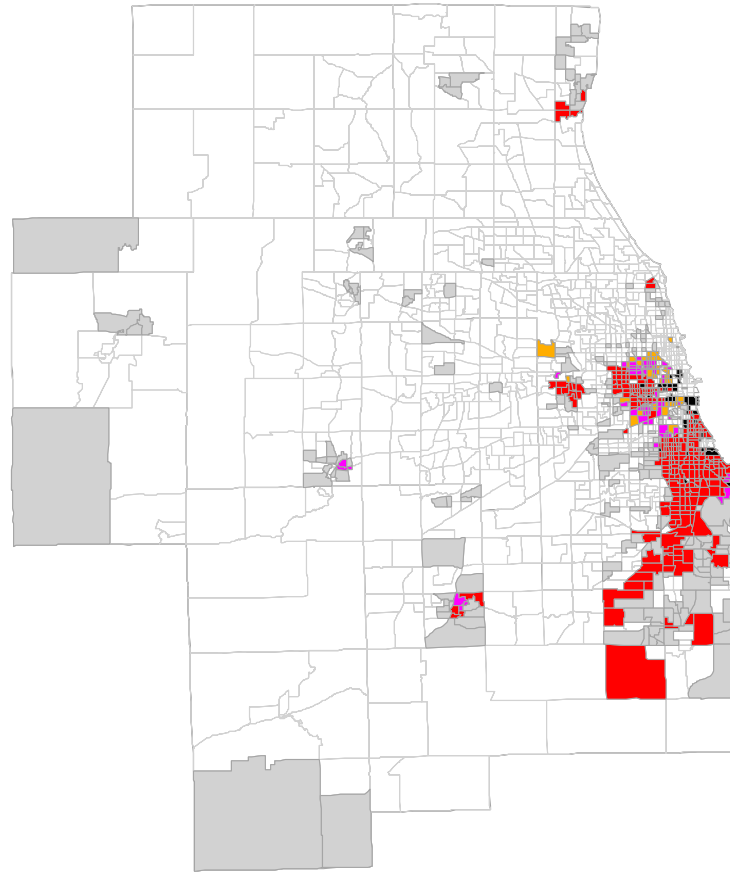
Subprime Refinance Market in Bergen-Passaic Metropolitan Area



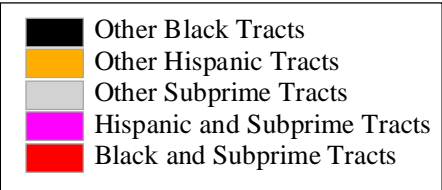
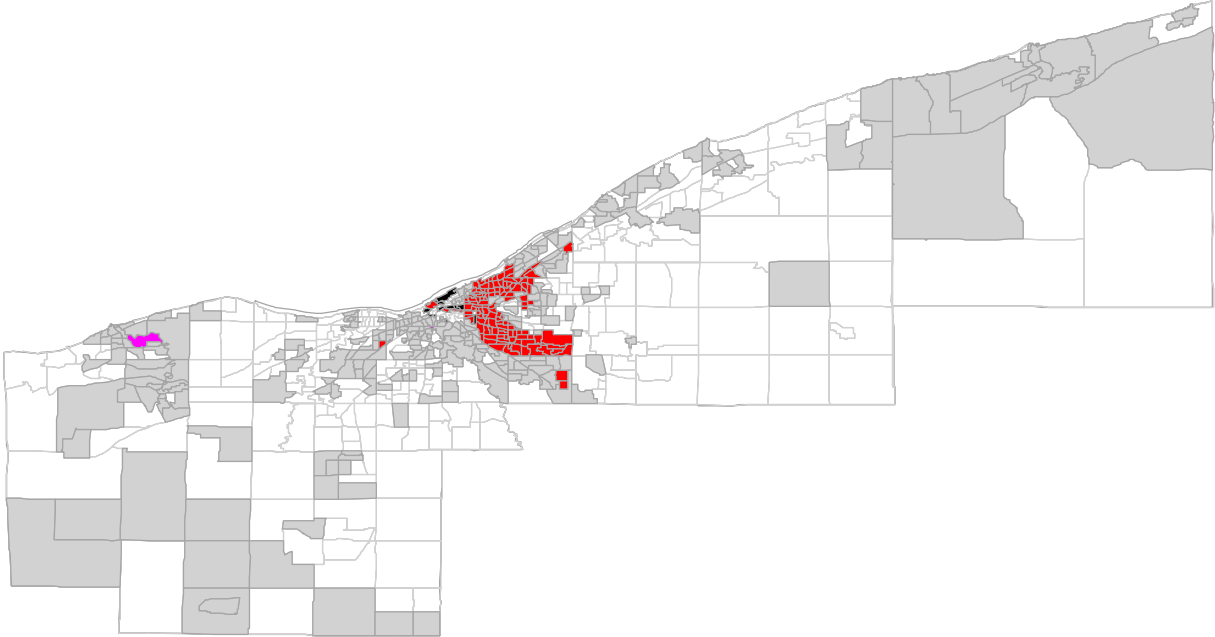
Subprime Refinance Market in Boston Metropolitan Area



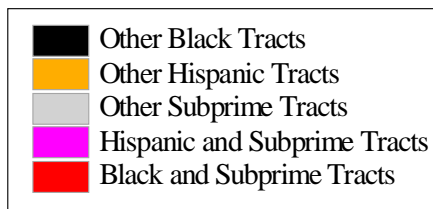
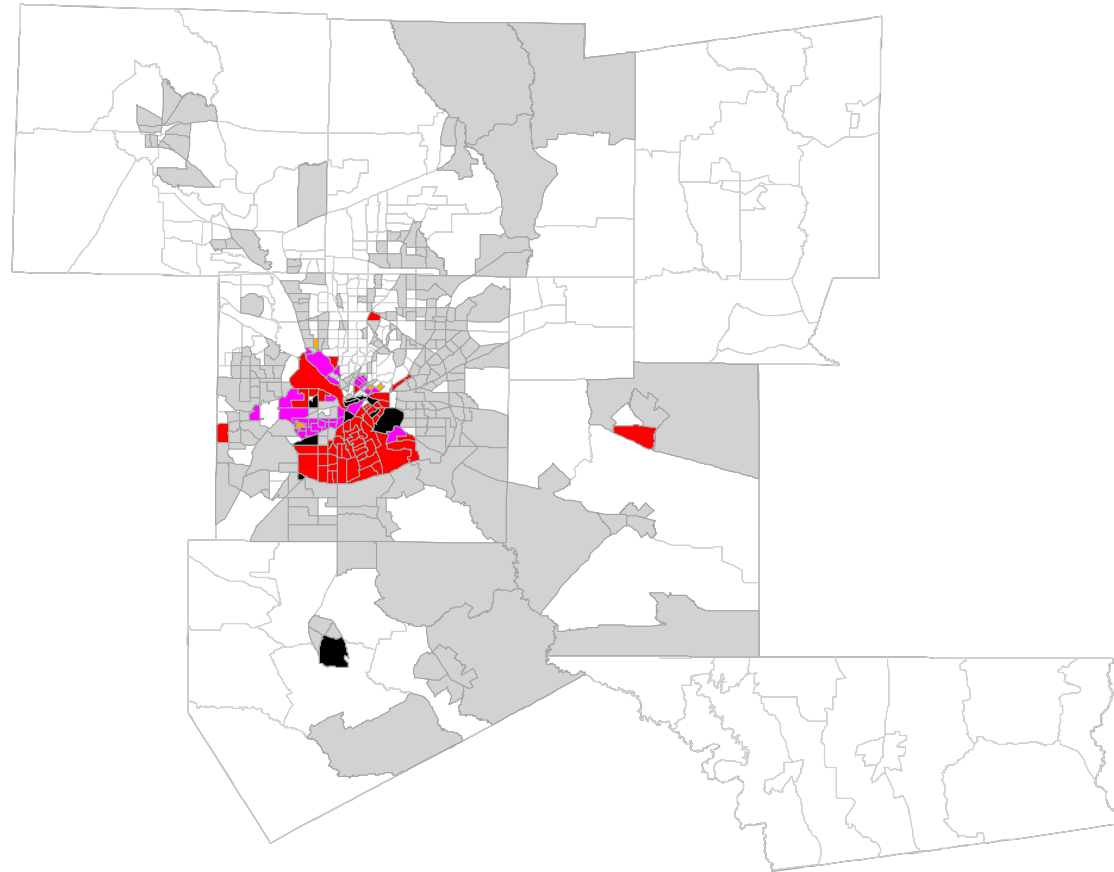
Subprime Refinance Market in Chicago Metropolitan Area



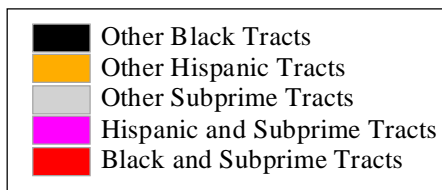
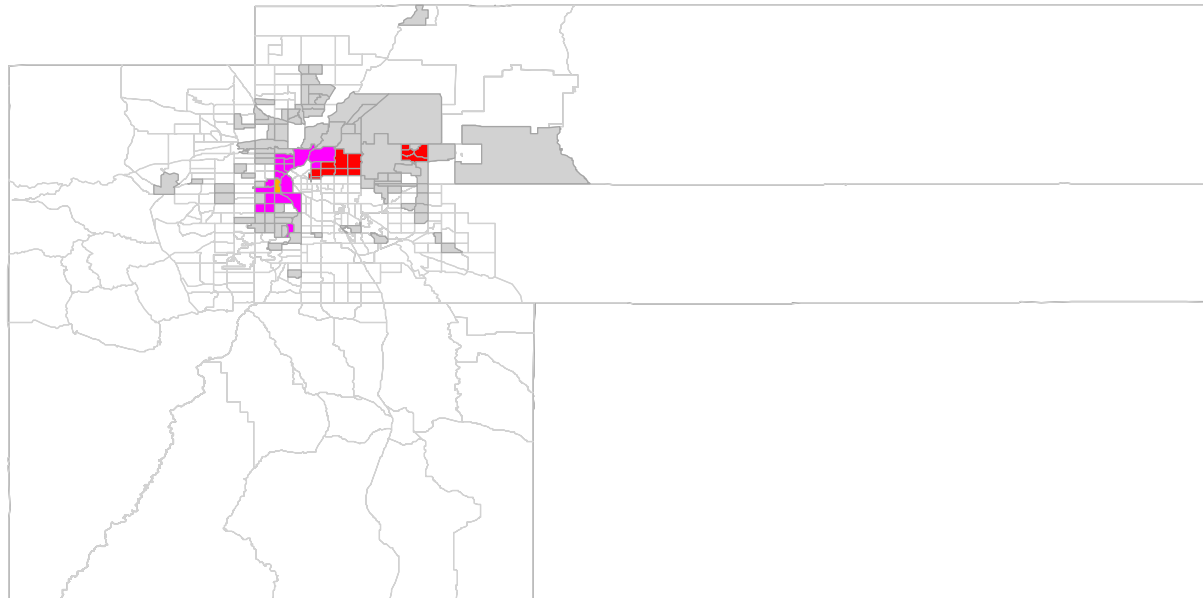
Subprime Refinance Market in Cleveland-Lorain-Elyria Metropolitan Area



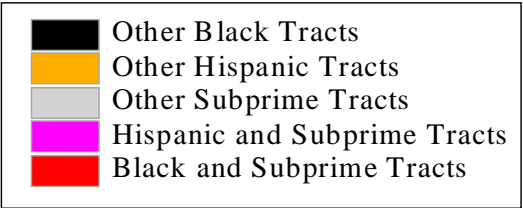
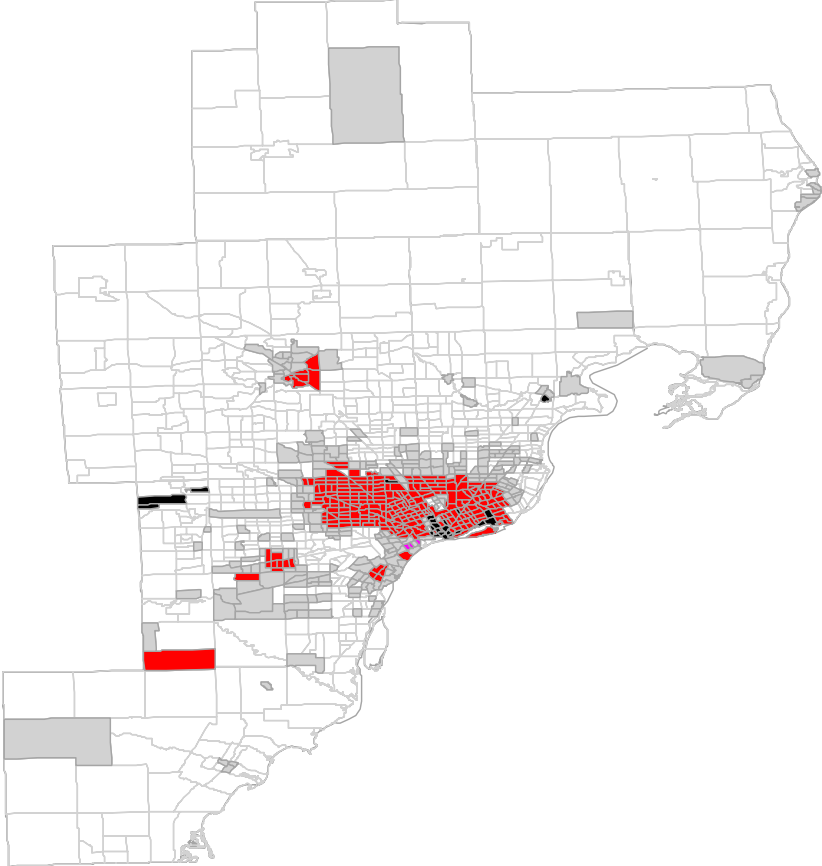
Subprime Refinance Market in Dallas Metropolitan Area



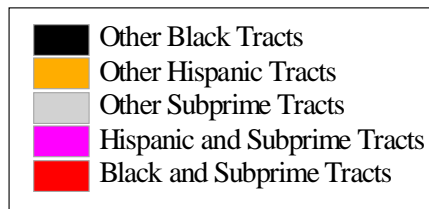
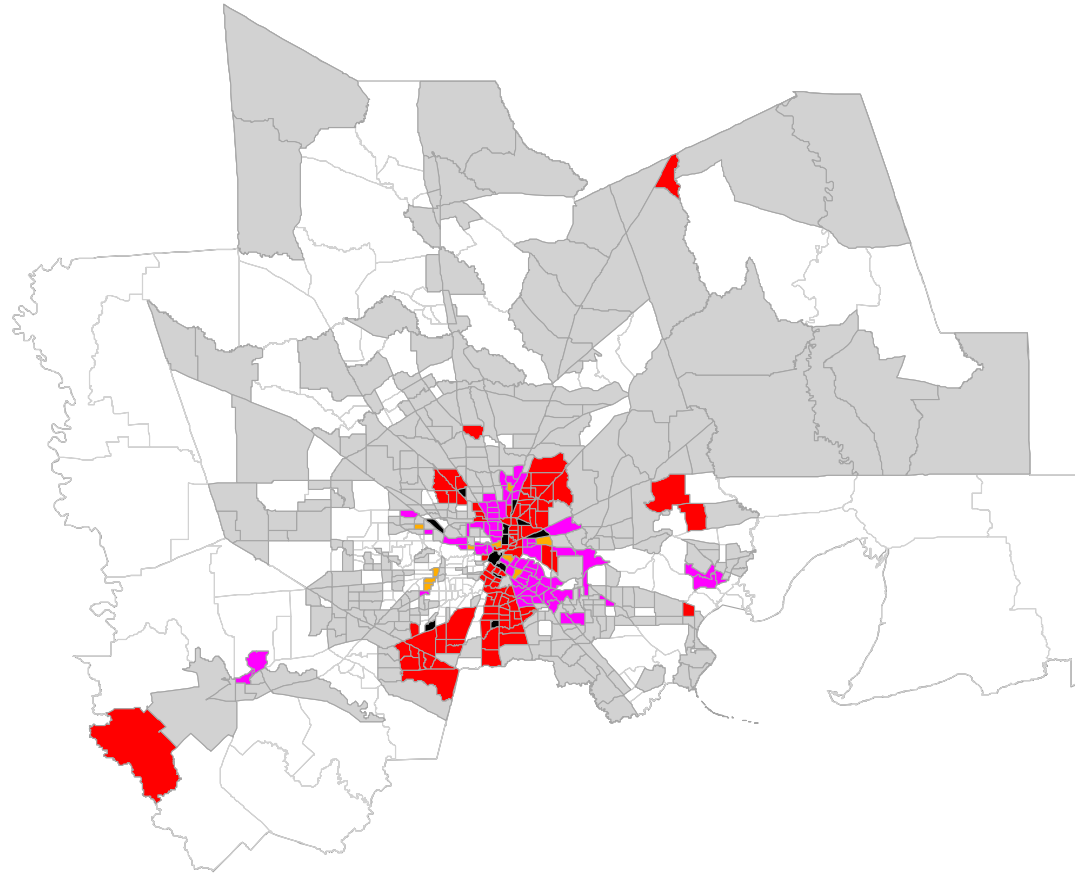
Subprime Refinance Market in Denver Metropolitan Area



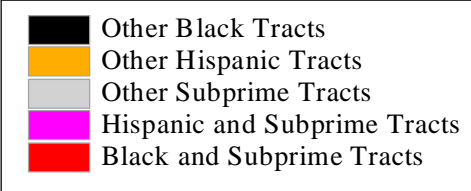
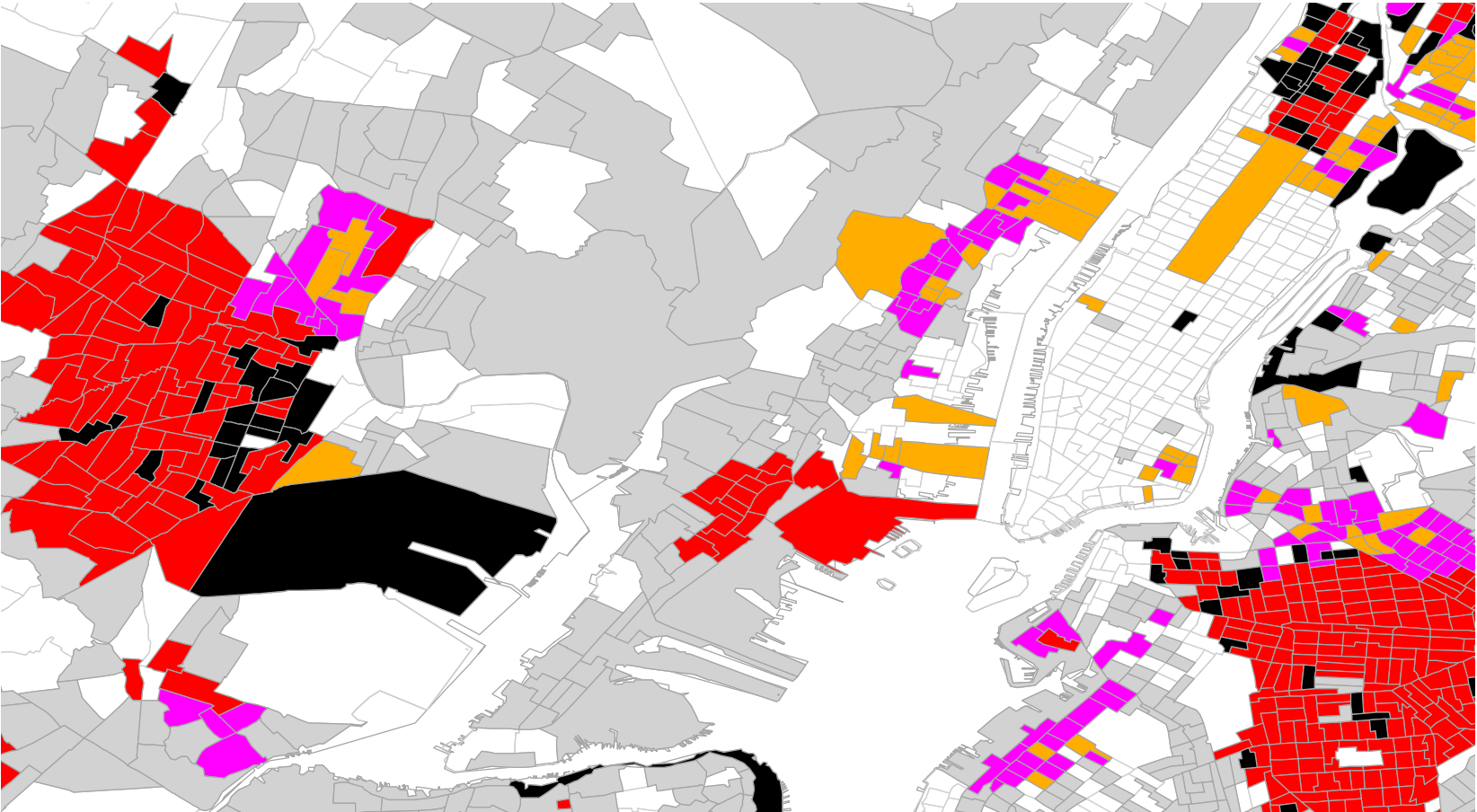
Subprime Refinance Market in Detroit Metropolitan Area



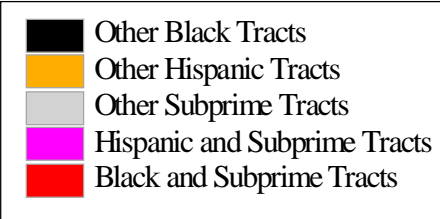
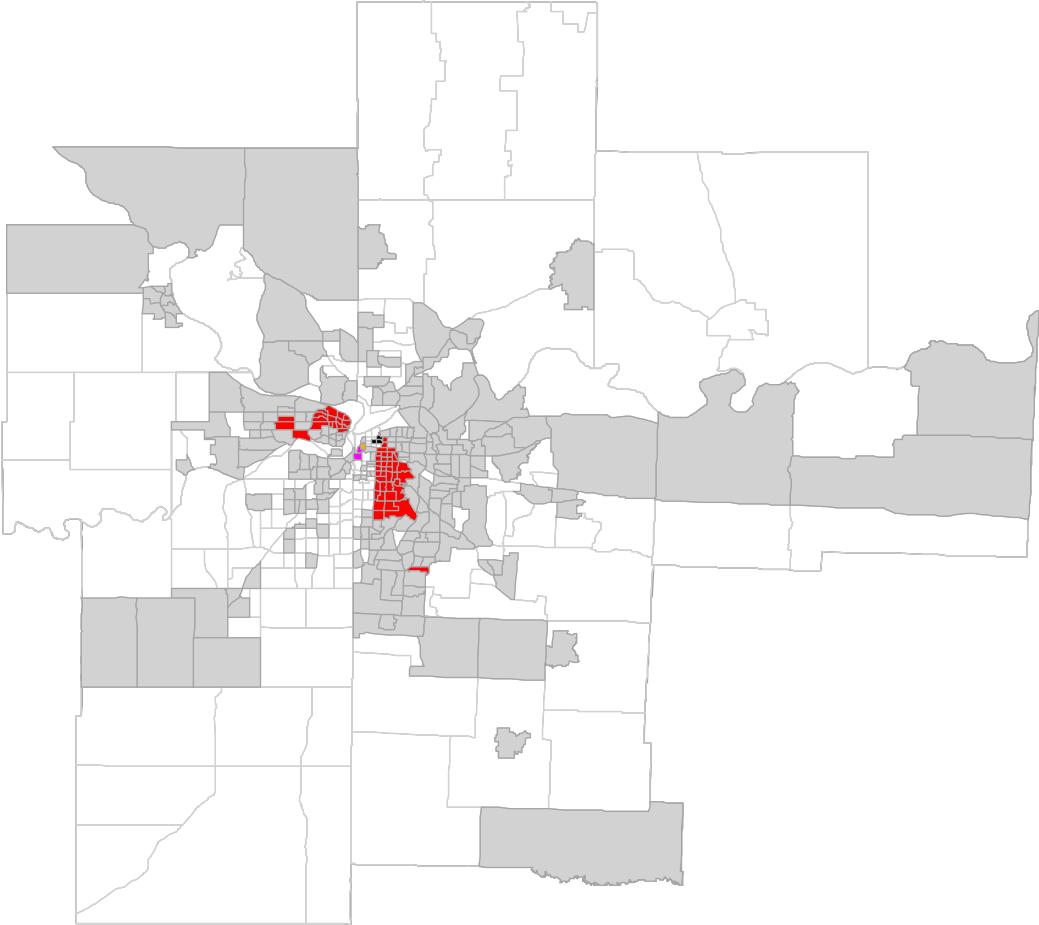
Subprime Refinance Market in Houston Metropolitan Area



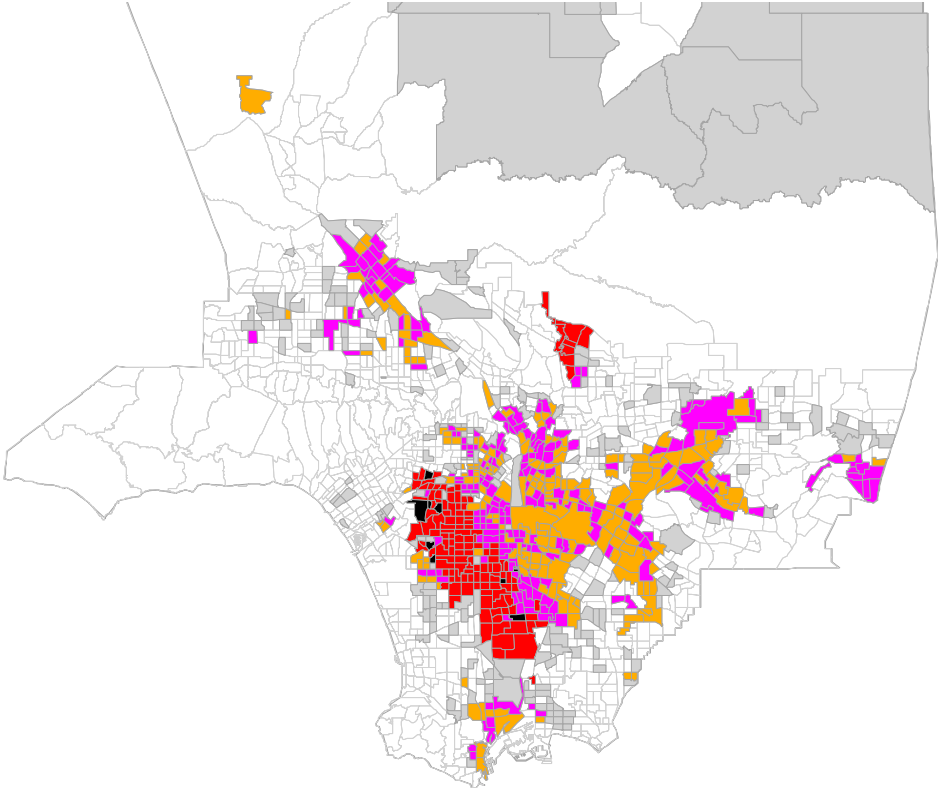
Subprime Refinance Market in Jersey City Metropolitan Area



Subprime Refinance Market in Kansas City Metropolitan Area

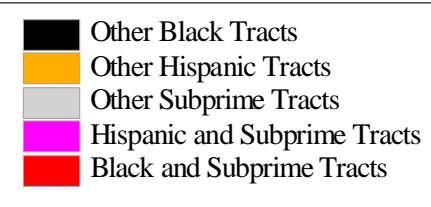
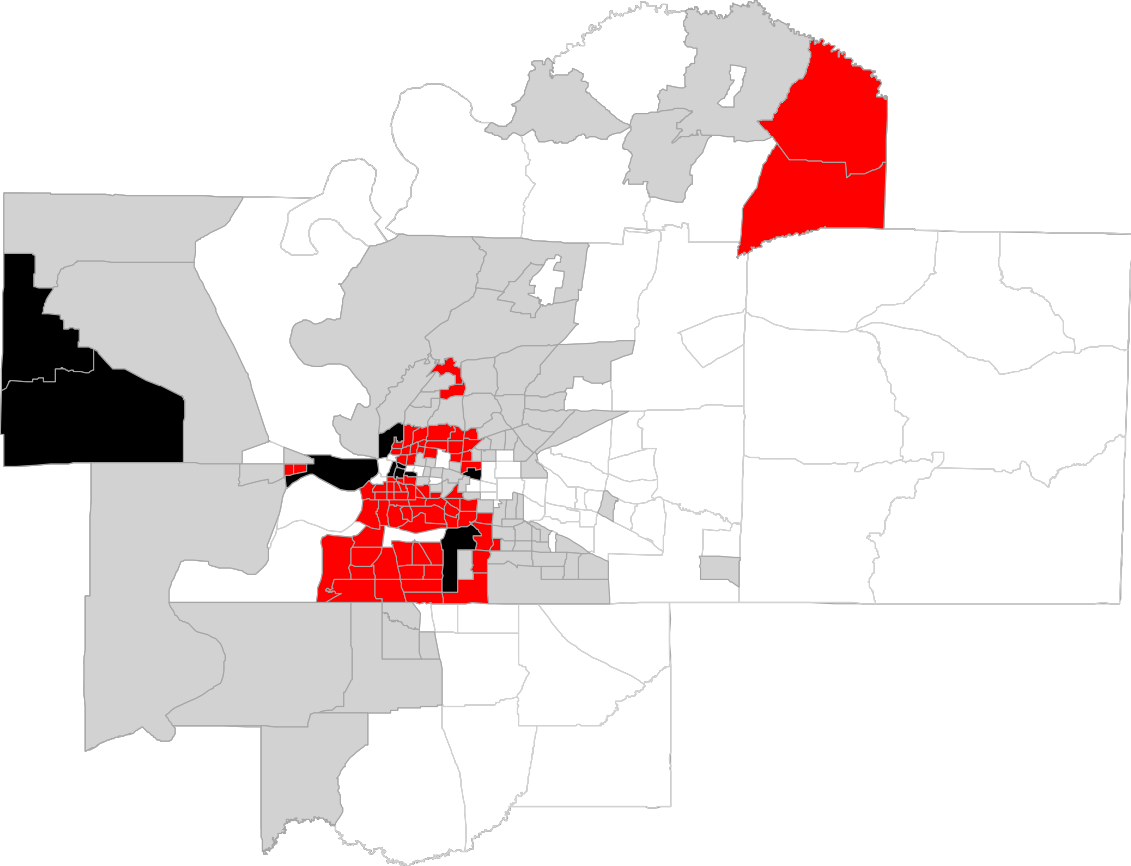


Subprime Refinance Market in Los Angeles-Long Beach Metropolitan Area

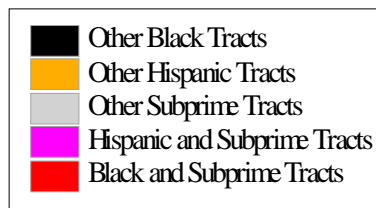
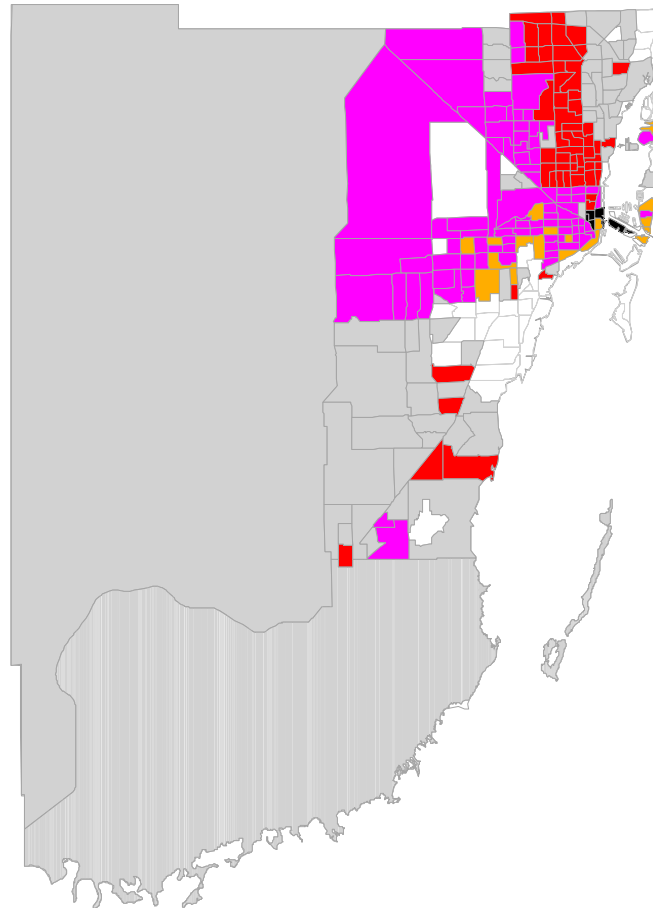


- Other Black Tracts
- Other Hispanic Tracts
- Other Subprime Tracts
- Hispanic and Subprime Tracts
- Black and Subprime Tracts

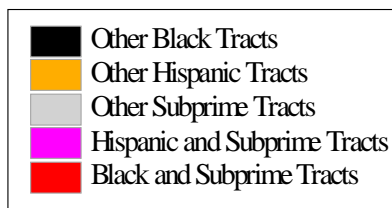
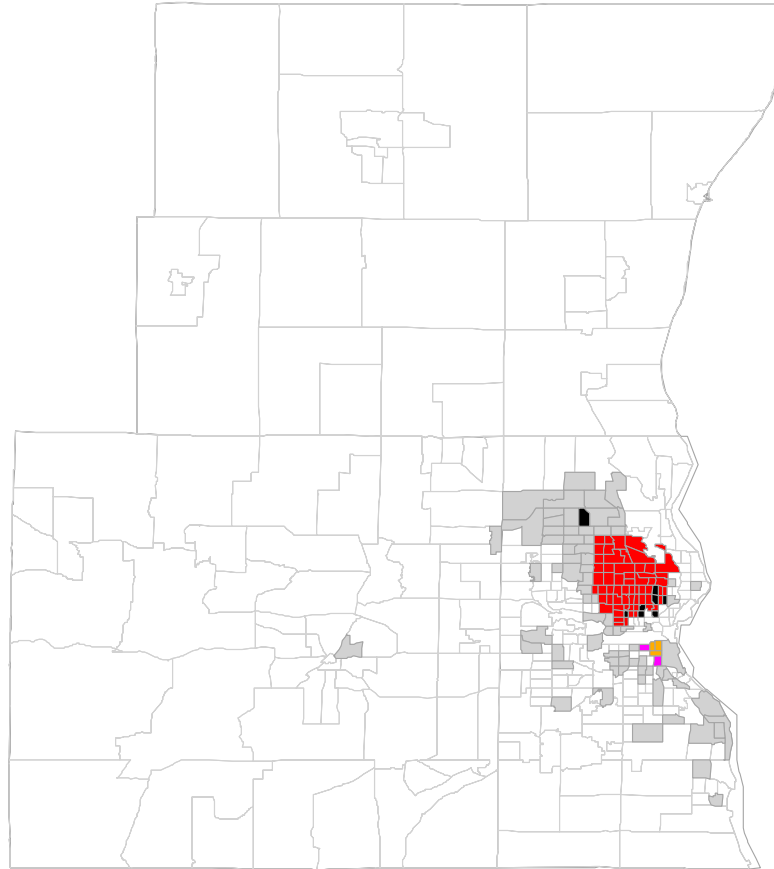
Subprime Refinance Market in Memphis Metropolitan Area



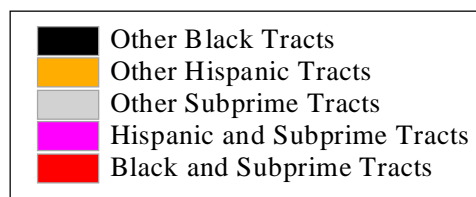
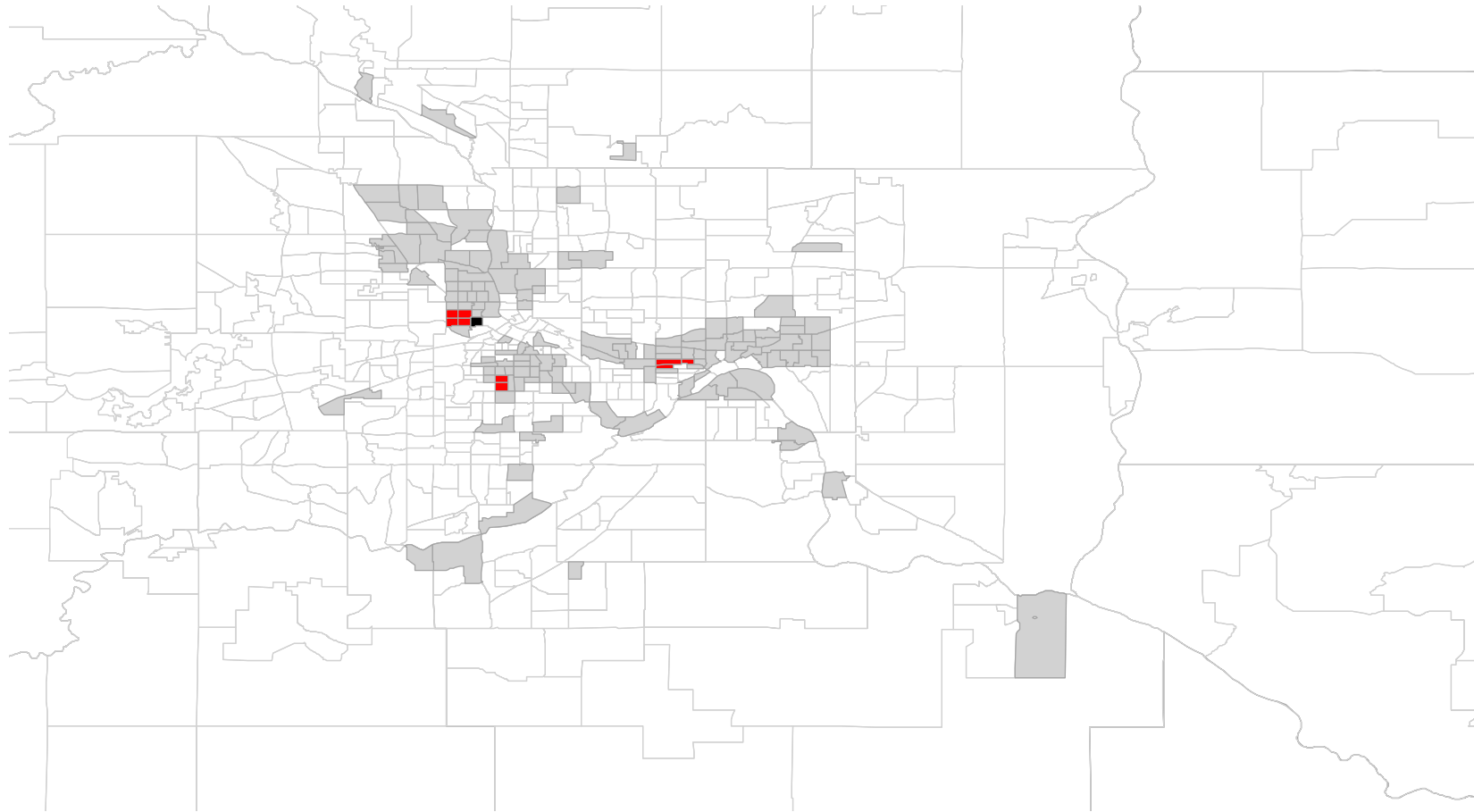
Subprime Refinance Market in Miami Metropolitan Area



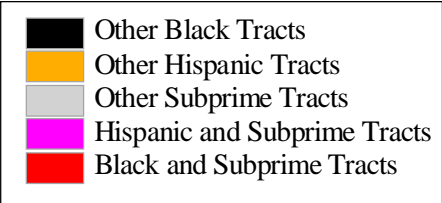
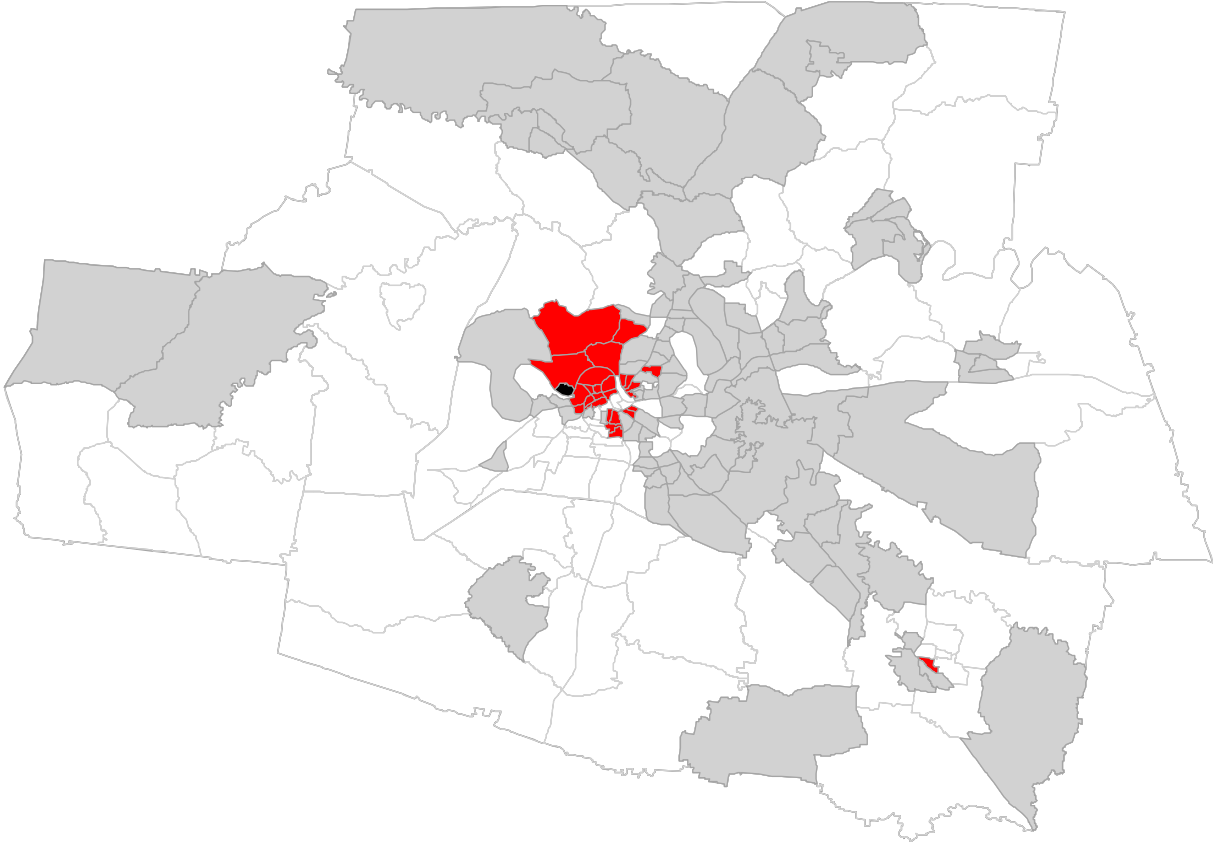
Subprime Refinance Market in Milwaukee-Waukesha Metropolitan Area



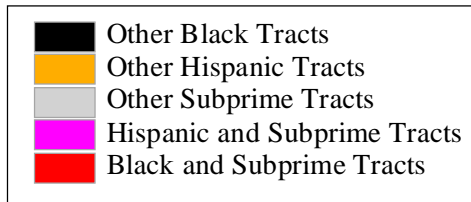
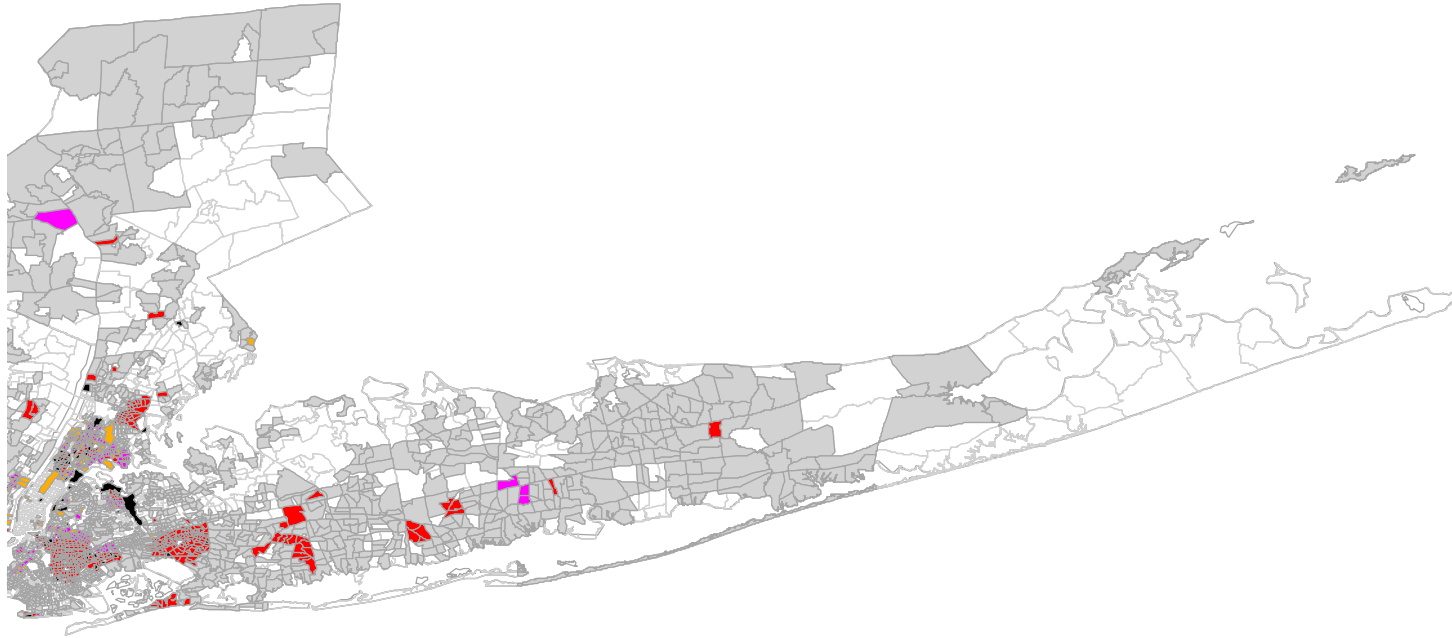
Subprime Refinance Market in Minneapolis-St. Paul Metropolitan Area



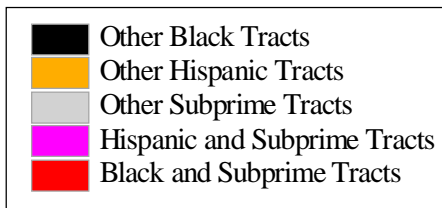
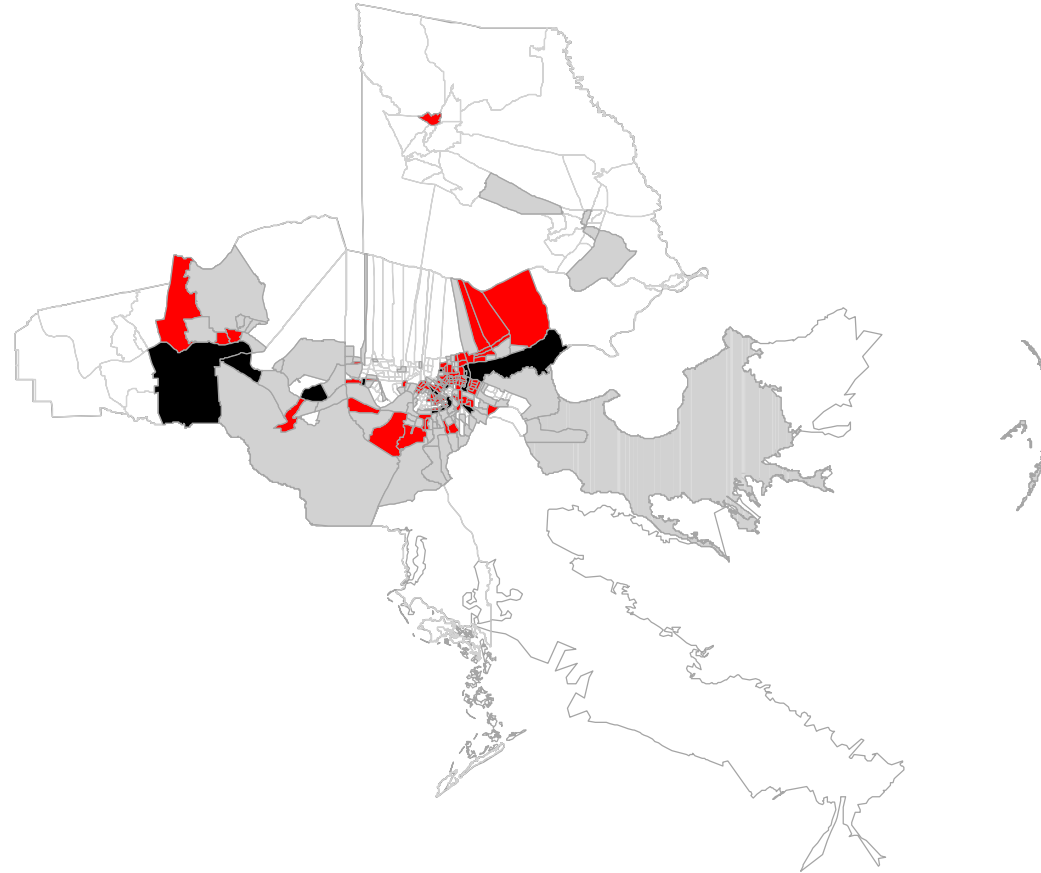
Subprime Refinance Market in Nashville Metropolitan Area



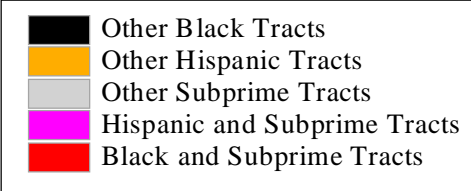
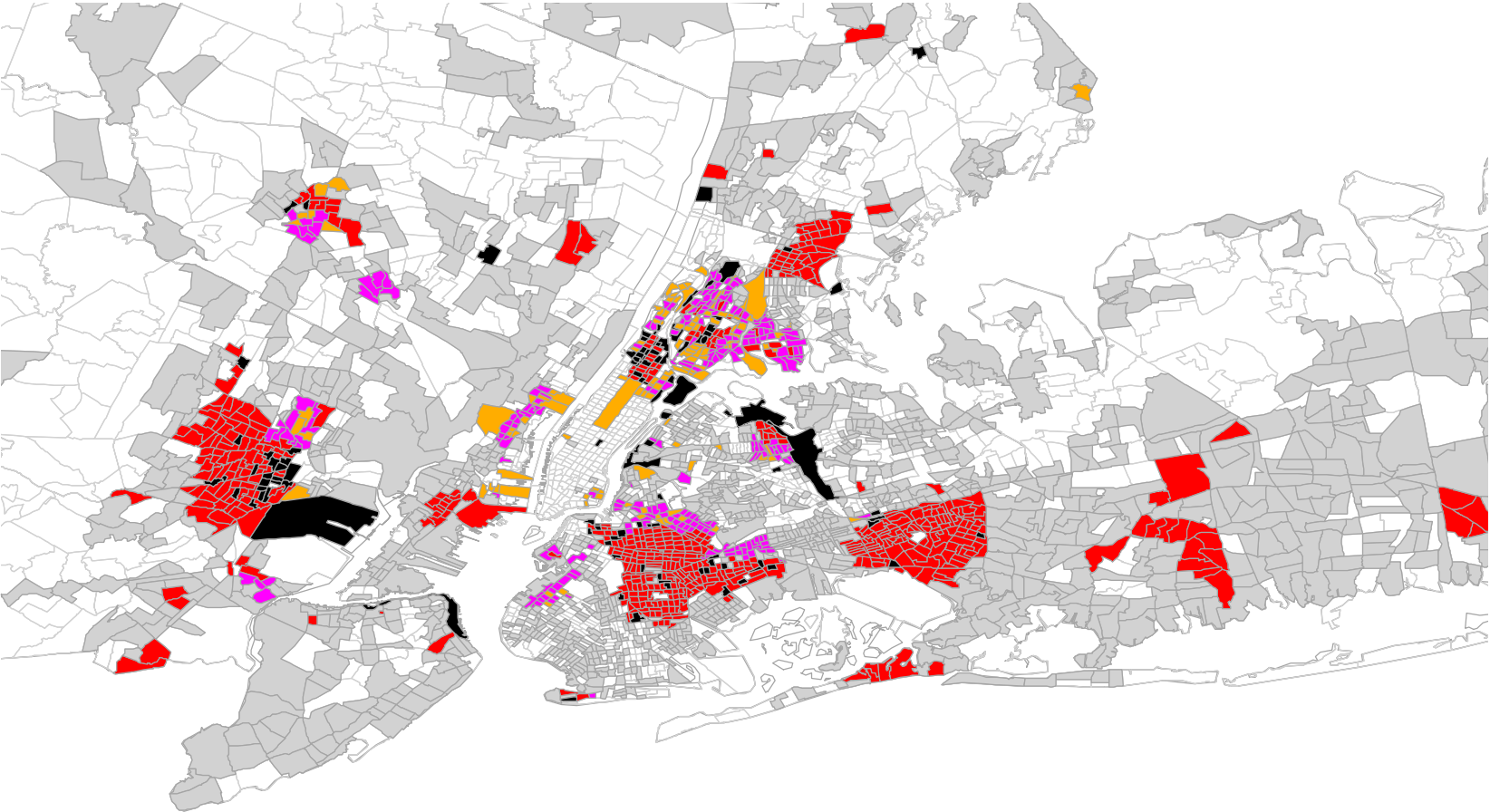
Subprime Refinance Market in Nassau-Suffolk Metropolitan Area



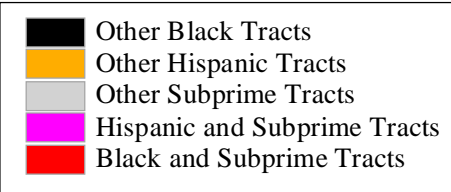
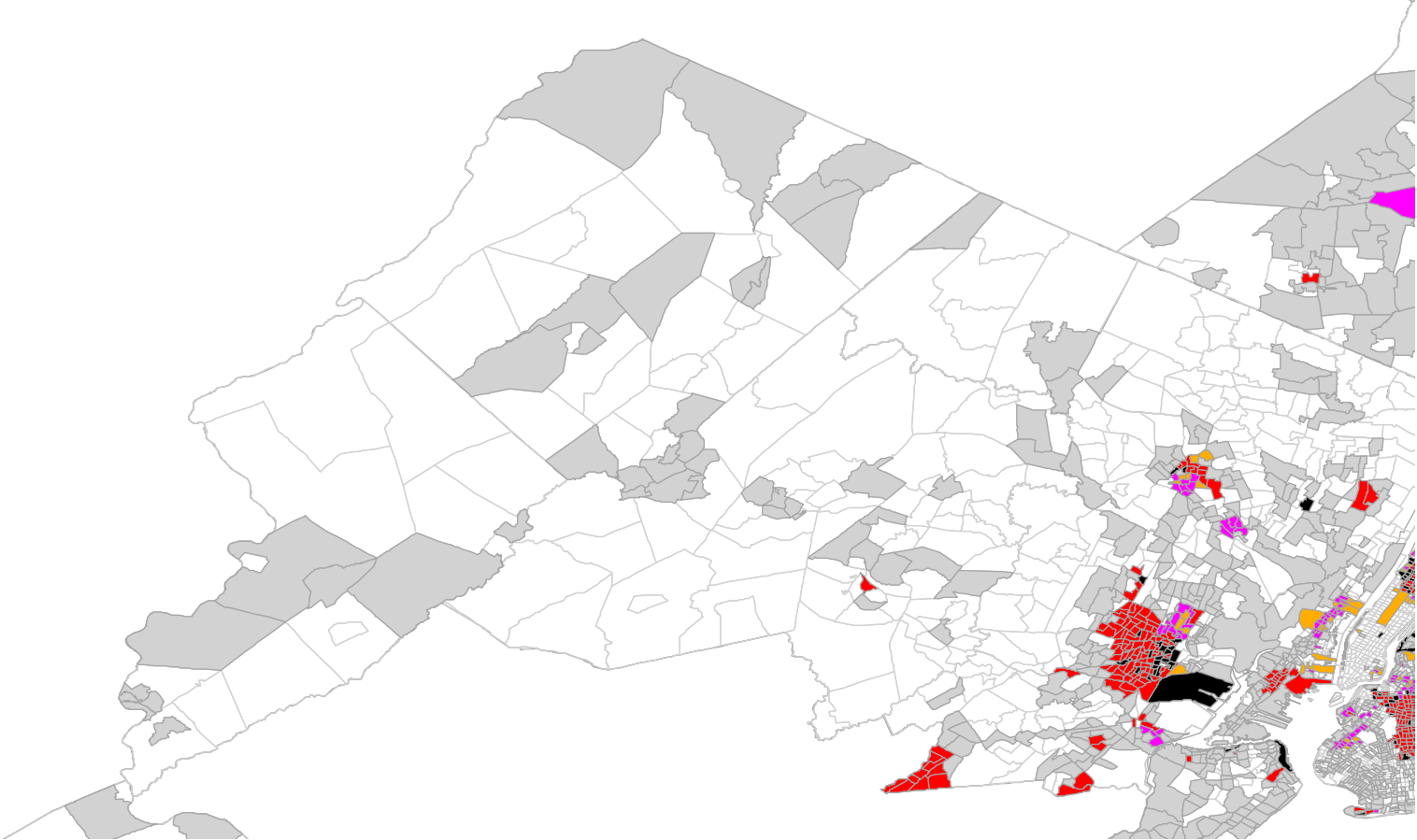
Subprime Refinance Market in New Orleans Metropolitan Area



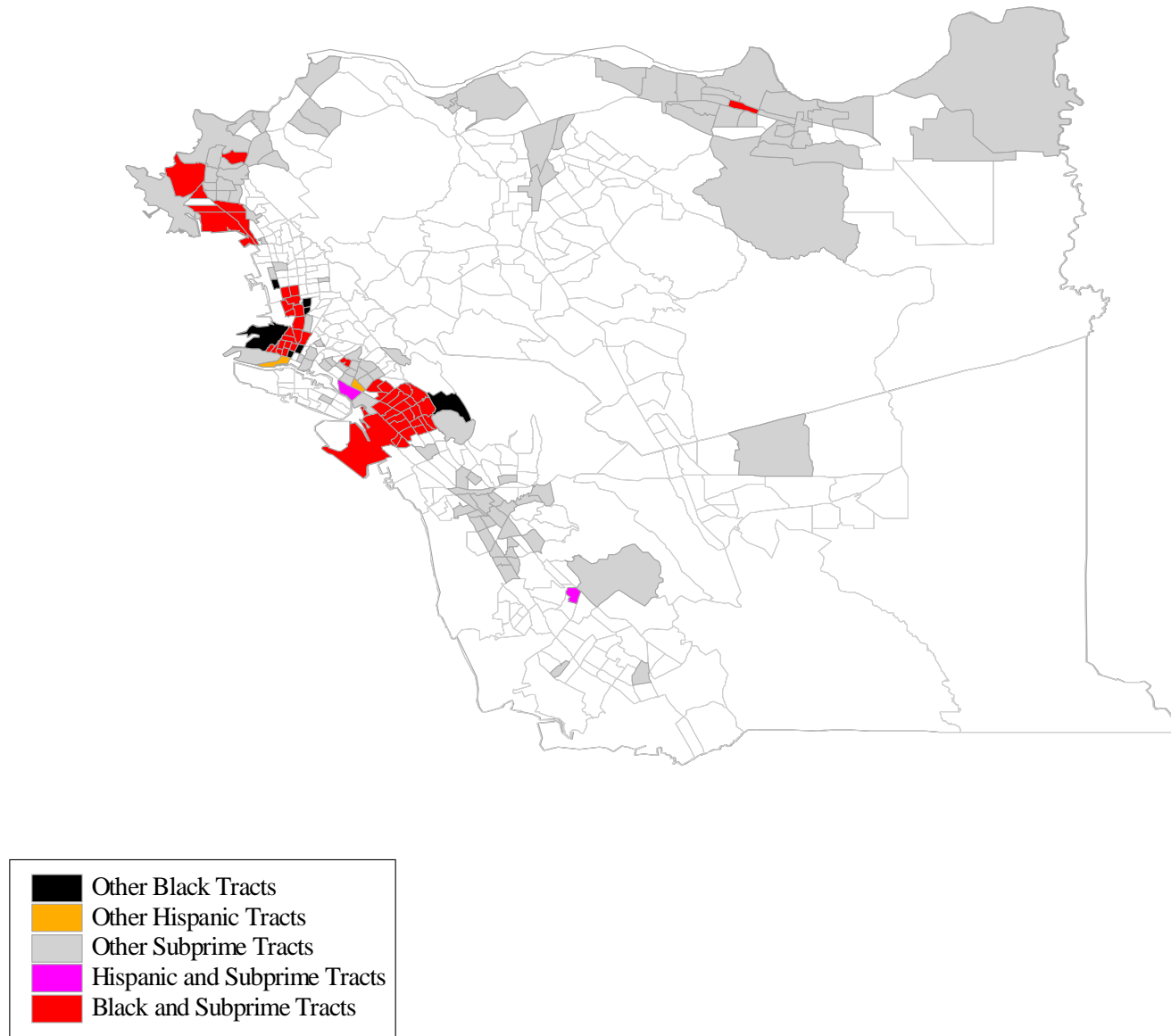
Subprime Refinance Market in New York Metropolitan Area



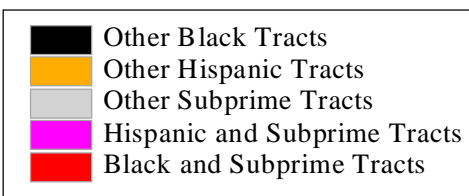
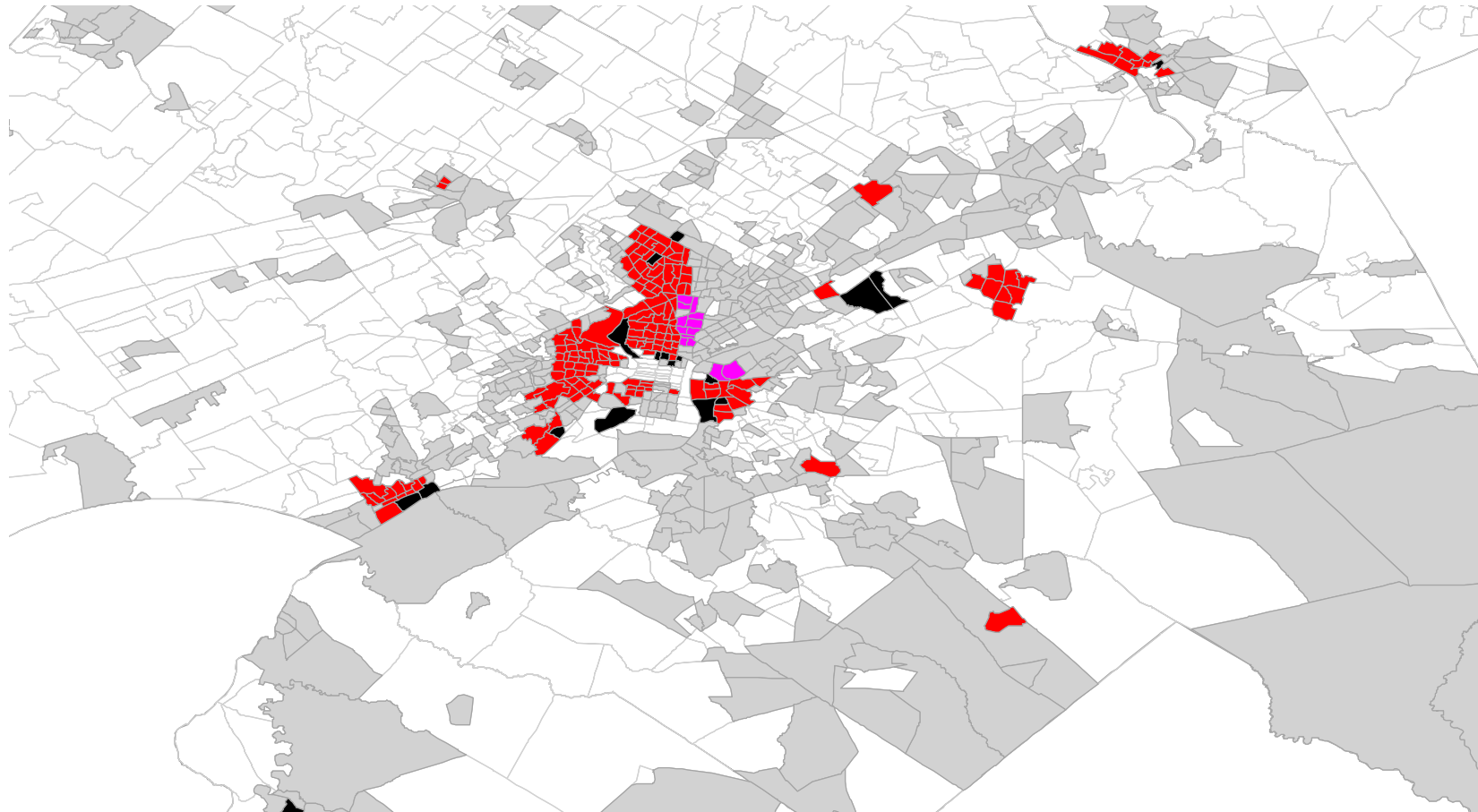
Subprime Refinance Market in Newark Metropolitan Area



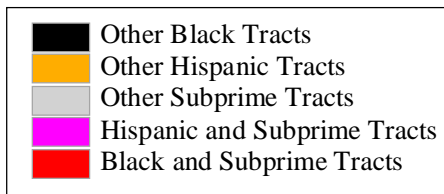
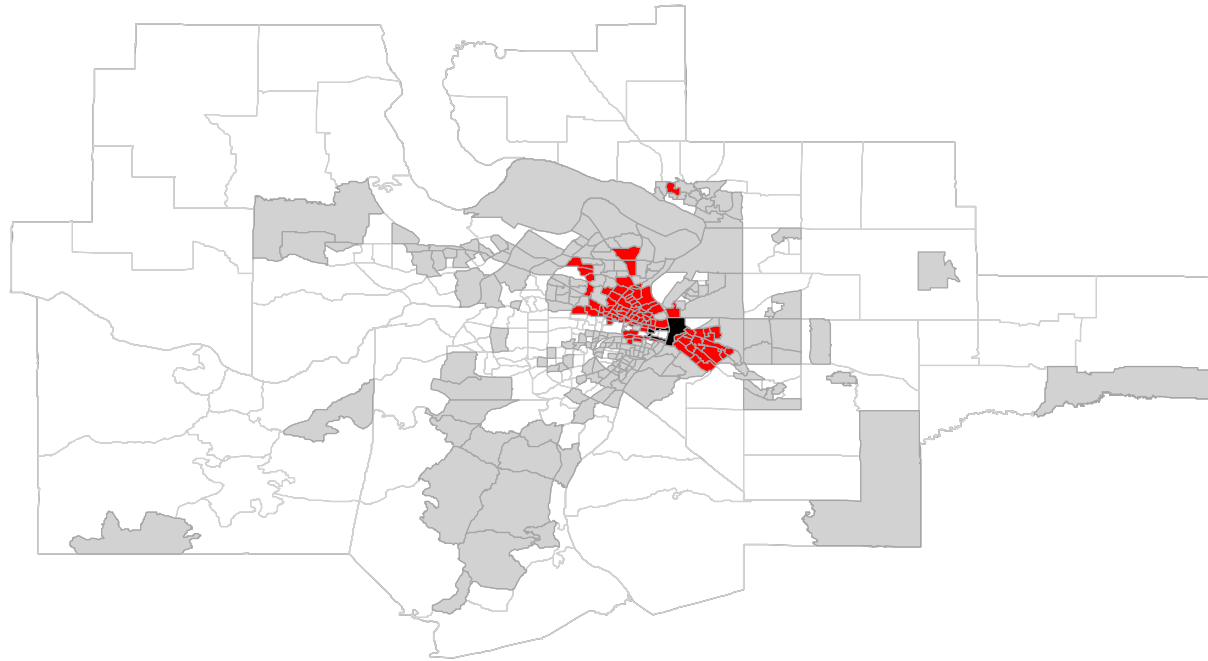
Subprime Refinance Market in Oakland Metropolitan Area



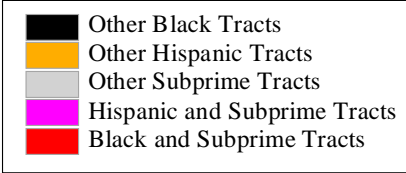
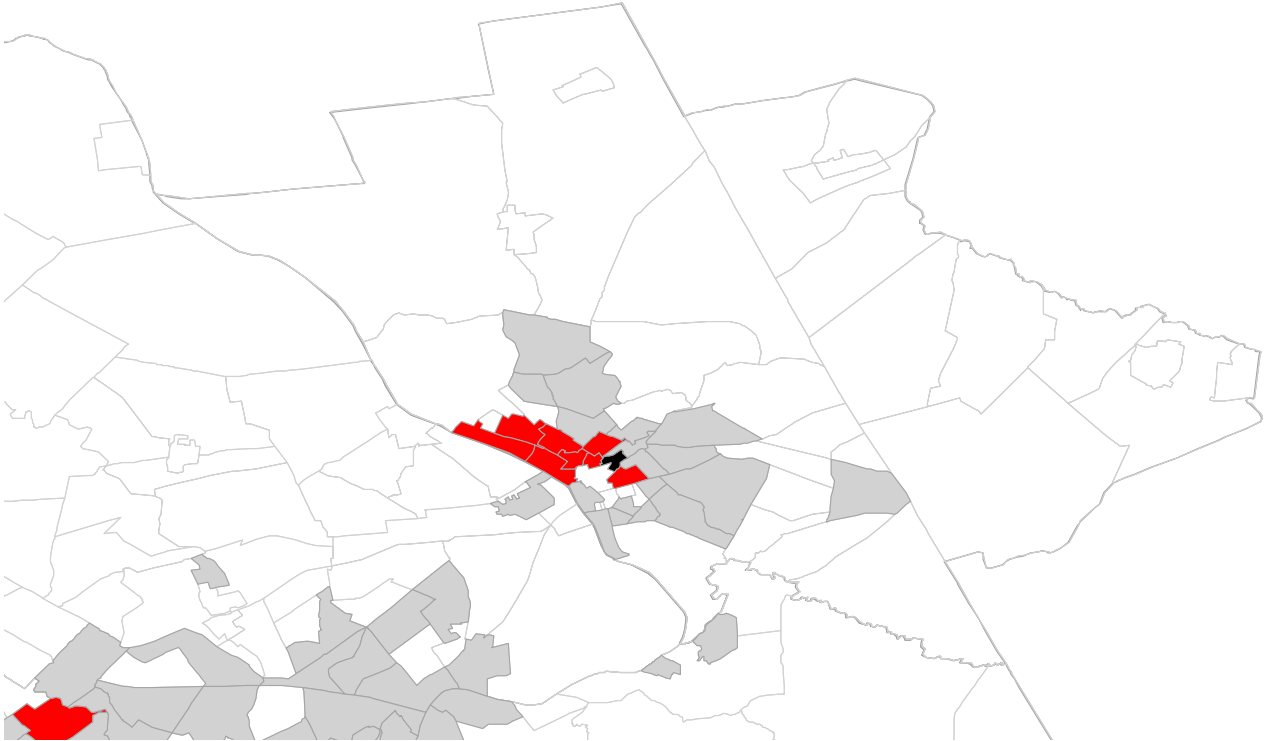
Subprime Refinance Market in Philadelphia Metropolitan Area



Subprime Refinance Market in St. Louis Metropolitan Area



Subprime Refinance Market in Trenton Metropolitan Area



Subprime Refinance Market in Washington, DC Metropolitan Area

