

Mortgage Lending in New England: Key Trends and Observations in 2012

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Summary

Using the annual Home Mortgage Disclosure Act (HMDA) data, this report provides a brief overview of New England's mortgage lending activity in 2012 and further investigates the disparities in loan origination outcomes for borrowers of various incomes, races, and ethnicities. While the number of total originations for first-lien loans for owner-occupied homes increased by more than 38 percent from 2011,¹ this surge in lending activity was primarily driven by a 48 percent growth in refinance originations, along with a modest push from a 16 percent increase in home-purchase loans. A more detailed analysis of the region's home-purchase and refinance lending dynamics for 2012 highlights significantly higher rates of denial for black and Latino borrowers than for white or Asian borrowers at every income level. Despite a slight increase in the proportion of conventional mortgages among all originated loans, low- and moderate-income (LMI)² applicants were 2.6 times less likely to receive such loans than middle- and upper-income (MUI) consumers (24.3 percent vs. 63.3 percent). Racial and ethnic minorities are also overrepresented in the nonconventional, government-guaranteed loan market with higher interest rates, which has expanded substantially since the 2008 financial crisis.

Introduction

As the average interest rate on a 30-year fixed mortgage continued to decline in the aftermath of the 2008 financial crisis, borrowers' demand for lower housing payments spurred a refinancing boom nationwide. In just four years, from the end of 2008 to the end of 2012, over

¹ This figure represents the largest pool of prospective borrowers since 2006.

² LMI borrowers are individuals with household income, as reported in the loan application, below 80 percent of the median income for the metropolitan statistical area (MSA). MSAs are composed of entire counties or county equivalents. Every MSA has at least one urbanized area with a population of 50,000 or more. About 1.5 percent of home-purchase originations and 5.5 percent of refinance mortgage originations did not have income information in 2012. This might be either because the loan was not in an MSA or because income was not reported in the underwriting decision. Some streamlined refinance programs do not require current income to be considered in underwriting.

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a quarter of all homeowners in the country (about 20 million) refinanced their existing mortgages.³ Most of the current home-lending activity is concentrated in the refinance sector, which means it benefits existing homeowners. Given this market structure, how economically and socially diverse are the borrowers whose refinance applications receive lenders' approvals? Using the annual Home Mortgage Disclosure Act (HMDA) data for 2006–2012, this work explores the recent changes in lending patterns for home refinance and home purchases in New England. In particular, the analysis seeks to develop a more nuanced understanding of borrowing outcomes for applicants when sorted by race/ethnicity and income.

Compiled annually by the Federal Financial Institutions Examination Council (FFIEC), the HMDA dataset is one of the most robust sources of information on the vitality of the home mortgage industry and the accessibility of its loan products by people of disparate demographic profiles. Enacted by Congress in 1975 to establish a higher level of transparency and encourage fair lending practices among the country's mortgage credit institutions, the HMDA synthesizes information from almost all lenders nationwide who process substantial numbers of mortgage applications. The act requires each reporting lender to publically disclose loan-level information on the borrower's income, race, ethnicity, and sex, as well as the location of the property, loan purpose,⁴ type,⁵ and mortgage terms. Since 2004, HMDA legislation has also asked lenders to report each loan's annual percentage rate (APR), which is a metric of the loan's affordability.⁶

Though the HMDA data in their current form do not provide sufficient evidence to establish the presence of discriminatory lending based on race, income, or neighborhood geography,⁷ the available information may highlight particular lending patterns for historically

³ Patric Hendershott, Jin Man Lee, and James Shilling, [The Impact of Lock-in Effects on Housing Turnover and Implications for a Housing Recovery](#), Research Brief (Chicago: The Institute for Housing Studies at DePaul University, 2014), 3.

⁴ The three possible loan purposes are home purchase, refinance, or home improvement.

⁵ Loans types include government insured or not government insured, secured by either a first lien or a junior lien on the property, and for an owner-occupied home or a non-owner-occupied home.

⁶ Neil Bhutta and Glenn B. Canner, "[Mortgage Market Conditions and Borrower Outcomes: Evidence from the 2012 HMDA Data and Matched HMDA–Credit Record Data](#)," *Federal Reserve Bulletin* 99, no. 4 (November 2013): 2–3.

⁷ The HMDA data set does not provide information on key financial risk variables, such as borrowers' credit scores and histories or their income-to-loan ratios, which would allow for a more substantive investigation of unfair lending based on race or economic background.

underserved populations that may be of interest to local bank regulators and lending institutions.⁸

This study's purpose is twofold. First, it aims to provide an overall snapshot of New England's mortgage market dynamics in 2012, as compared with previous years, and to investigate specific trends in lending (particularly for refinance) by income and race. Second, it aims to generate a more focused analysis of the region's mortgage market outcomes in 2012. Given these objectives, the report includes data only for first-lien loans for owner-occupied homes and omits junior-lien loans, all loans for multifamily properties, and all loans for homes that are not owner occupied.⁹ The first part of the report explores the volume of loan applications and origination rates for various loan purposes/ loan types. The latter half of the analysis discusses the historically high level of homeowner demand for refinance loans and the disparate origination outcomes for this product by race and income level.

New England's Mortgage Market Dynamics in 2012: General Overview

In 2012, FFIEC recorded a total of 705,528 home mortgage applications from prospective borrowers, which represents a 30.5 percent increase in demand from the previous year. While only about 68.1 percent were approved (480,768 mortgages), this figure stands out as the highest origination rate over the past seven years. As previously mentioned, much of this lending activity was concentrated in the refinance sector as opposed to the home-purchase sector. Interestingly, in 2012, the origination rates for home-purchase mortgages hit a seven-year low, while the origination rates for refinance loans were at a high for the same period. Compared with one another, the origination rate for home-purchase applications is still higher than the rate for refinance applications (72.4 percent vs. 66.7 percent). The declining share of purchase mortgages is particularly noteworthy because the denial rates for both loan categories (discussed later in this section) have also been consistently decreasing since 2006. In

⁸ Alicia Munnell, Geoffrey B. Tootell, Lynn E. Browne, and James McEneaney "Mortgage Lending in Boston: Interpreting HMDA Data." *American Economic Review* 86, no. 1 (March 1996): 25–53.

⁹ Data are available at the [website of the FFIEC](http://www.bostonfed.org/commdev/data-resources/hmda/index.htm). Detailed data for New England states may be found at <http://www.bostonfed.org/commdev/data-resources/hmda/index.htm>HMDA coverage is limited to lending institutions that have at least one office in an MSA.

tandem, these data suggest that a growing share of prospective homebuyers are either withdrawing or not completing their mortgage applications.

Figure 1. New England Home-Purchase and Refinance Applications and Originations, 2006–2012

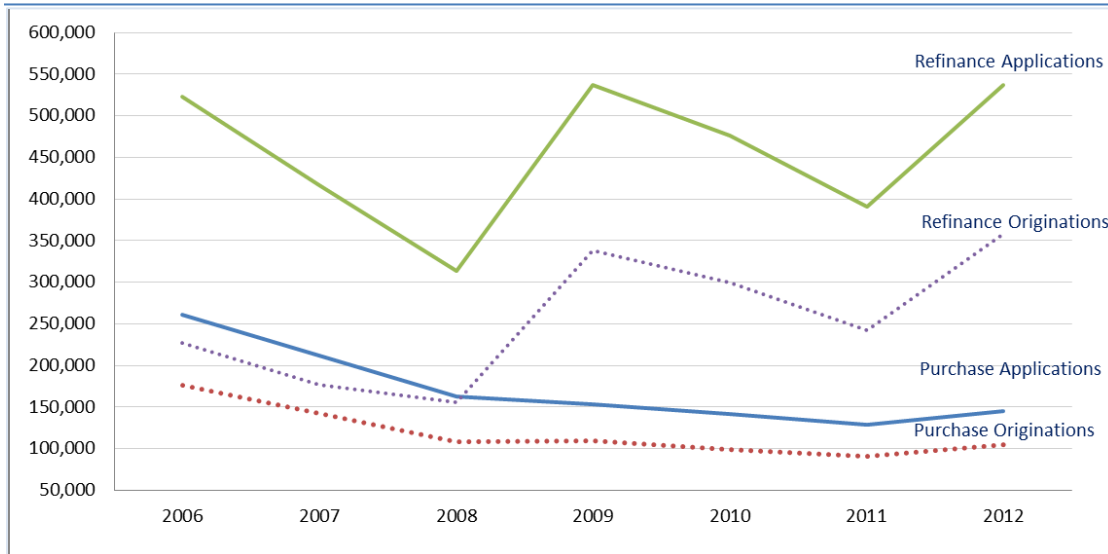
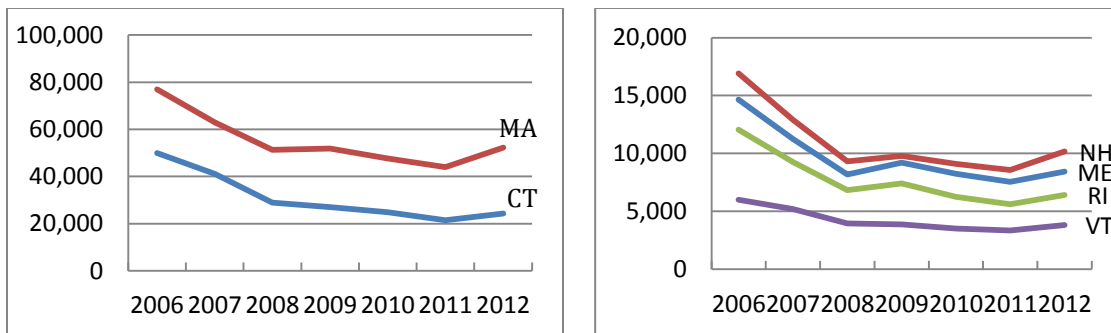


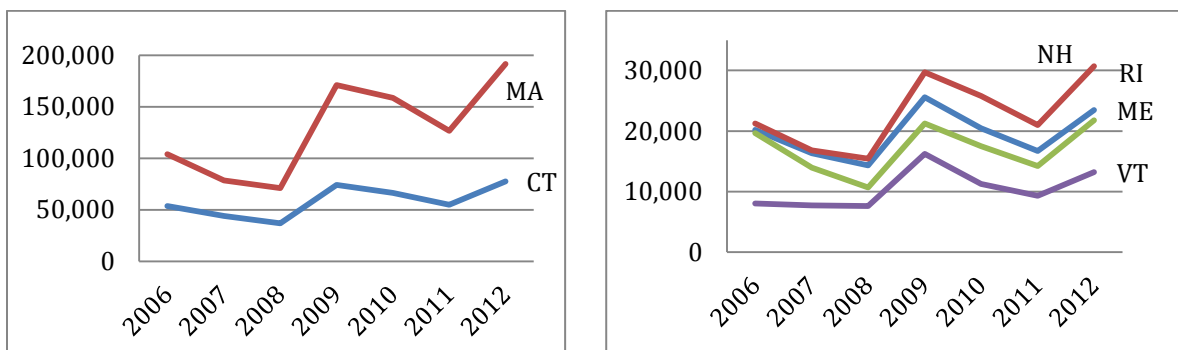
Figure 2. New England Home-Purchase Loan Originations by State, 2006–2012



Despite the increase in home-purchase originations in every New England state in 2011–2012, both origination *volumes* and *rates* are still substantially lower than the corresponding figures from the 2006–2007 period. Connecticut stands out as having the largest drop (by 51 percent) in the number of approved mortgages since 2006, and Massachusetts shows the smallest change in this measure, with a 32 percent decline over the same time frame. In the case of home refinance, the opposite trend has been at play. Refinance data for the past seven years show sharp increases in loan originations in all six states. Financial experts link this surge

in refinance demand to the historic reductions in mortgage interest rates, but there is stark variation in the impact those low rates have had on the refinance markets of individual states. As illustrated in the Figure 3 graphs below, Massachusetts experienced an 85 percent increase in refinance originations from 2006, which represents the highest growth rate among the New England states. Homeowners in Rhode Island and Maine have not been nearly as active on the refinance front, as indicated by the 11 percent and 16 percent growth rates respectively.

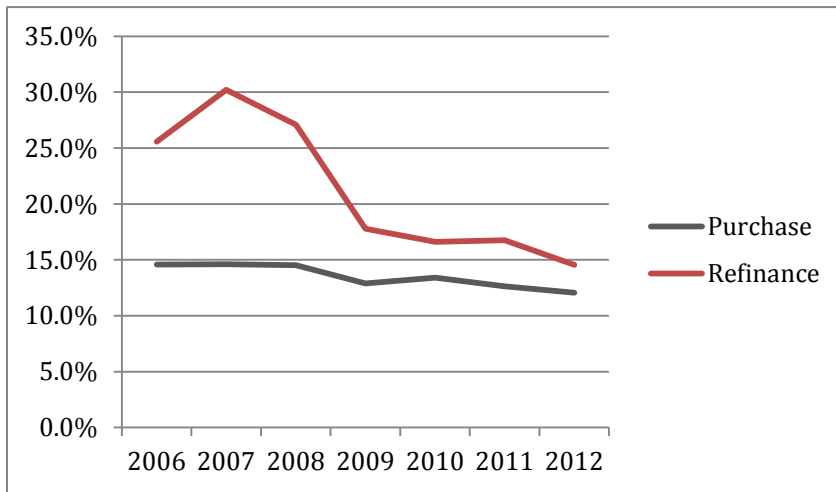
Figure 3. New England Refinance Loan Originations By State, 2006–2012



Denial Rates by Loan Purpose

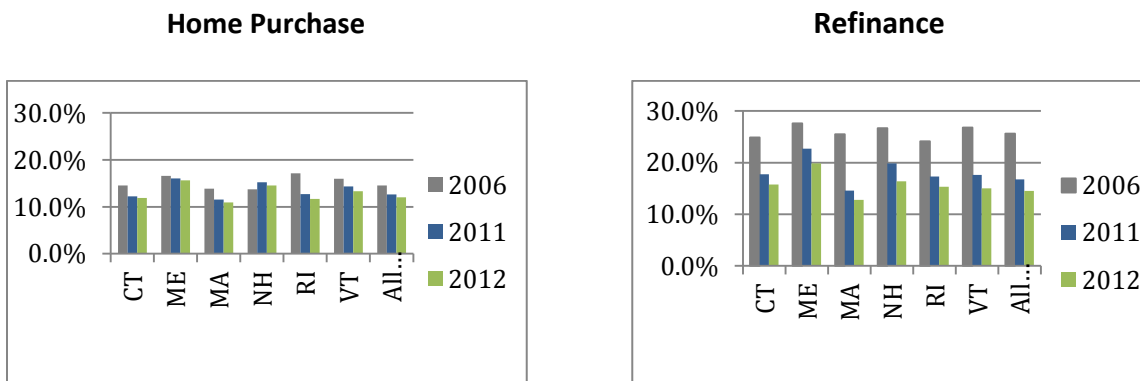
Since 2011, the denial rate for all home mortgage applications has fallen to 10.9 percent, which represents the lowest rate of denied applications over the past seven years. Comparing the 2012 denial rate to its corresponding figure at the onset of the financial crisis in 2007, there has been a 14 percent reduction in the percentage of applicants turned down. The most substantial declines occurred in Maine and New Hampshire, where from 2011 to 2012, denials dropped from 21 percent to 13.5 percent and from 18.7 percent to 12.1 percent, respectively. These declines are especially striking given that these two states have had the highest denial rates in New England since 2006.

Figure 4. Home-Purchase and Refinance Loan Denial Rates in New England, 2006–2012



As illustrated in Figure 4, the 2012 denial rates for refinance are only 2.4 percentage points higher than denial rates for home purchase applications (14.5 percent vs. 12.1 percent). Massachusetts stands out as having the lowest denial rates in New England for both home purchase and refinance categories. Denial rates by race and income level for purchase and refinance mortgages will be addressed in detail in the second section of this paper.

Figure 5. Denial Rates in New England by State: 2006, 2009, and 2012



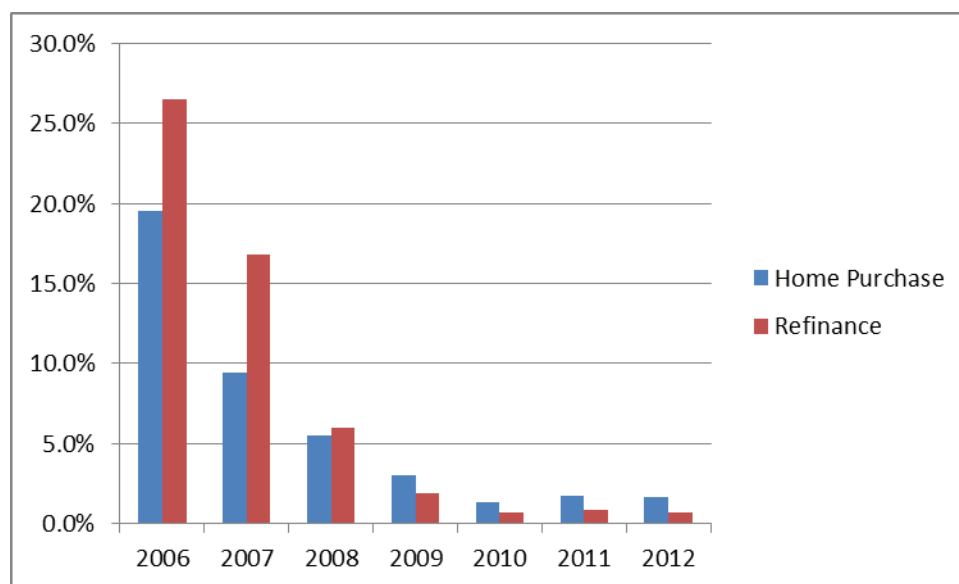
High-APR, Conventional, and Nonconventional Mortgage Originations

In 2004, the HMDA was amended to require lenders to report the “pricing information for first-lien mortgages with an APR that is three percentage points above a typical prime loan.”¹⁰ High-

¹⁰ Bhutta and Canner, “[Mortgage Market Conditions and Borrower Outcomes: Evidence from the 2012 HMDA Data and Matched HMDA–Credit Record Data.](#)”

APR loans indicate a higher cost to the consumer; they are what policymakers and professionals in the financial industry have referred to as “subprime” credit products. In New England, only 1 percent of all originated loans in 2012 were high-APR loans, which represents a dramatic drop from 2006, when high-APR loans comprised 23.1 percent. It is also notable that this dramatic drop extends across all races and ethnicities--as detailed in the next section. For the six individual states, high-APR shares ranged from .6 percent (in Massachusetts) to 2.9 percent (in Maine).

Figure 6. New England Home-Purchase and Refinance High-APR Loans (as a Percentage of Total Loans), 2006–2012



The 2012 high-ARP data suggest a virtual disappearance of subprime lending in New England, but another category of mortgage products has proliferated among borrowers who could not meet the relatively—and increasingly—demanding requirements of conventional loans.¹¹ These are government-insured mortgages (also known as nonconventional mortgages), which are backed by the Federal Housing Administration (FHA), Veterans Affairs (VA), or Farm Service Agency (FSA). These mortgages offer borrowers more liberal underwriting standards: no

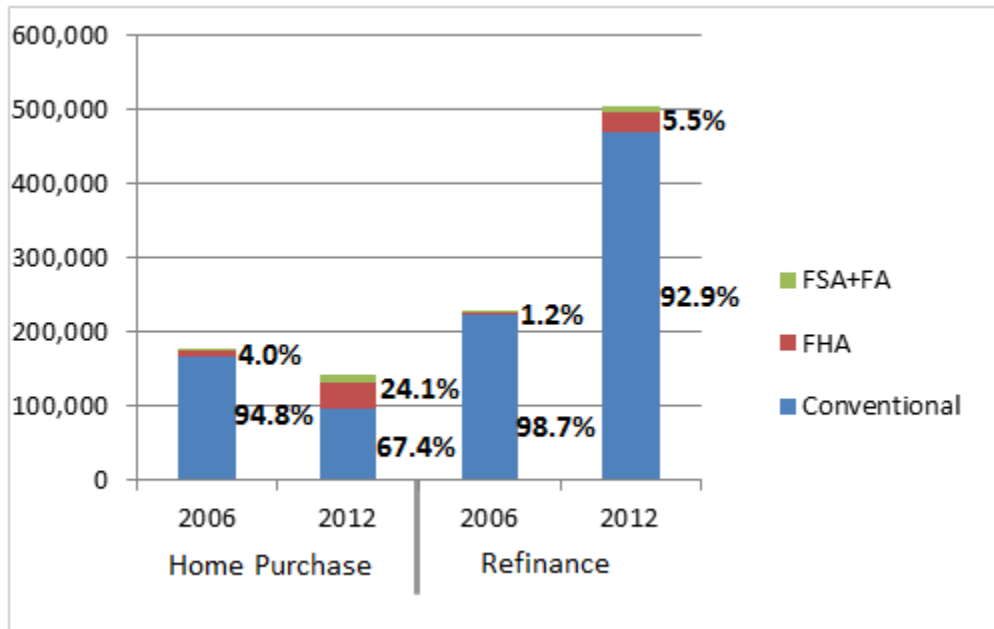
¹¹ Conventional mortgages typically require borrowers to pay at least a 20 percent down payment. This type of loan product is not guaranteed or insured by any government agency and adheres to Fannie Mae guidelines. Fannie Mae (Federal National Mortgage Association) is a corporation created by the federal government that buys and sells conventional mortgages. It establishes a maximum permissible loan amount as well as borrower requirements. Conventional loans are usually fixed in their terms and rate.

minimum FICO scores and only a 3 percent down payment. However, some finance experts have expressed concern that these government-insured products appeal to low-income people who have a higher probability of defaulting on repayment. Since these loans carry higher risk, the insurance premiums, interest rates, and fees included in the contracts are higher than those in conventional credit markets.¹² The next few paragraphs analyze changes in the incidence of conventional and nonconventional mortgages from 2006 to 2012 and during 2011–2012 in particular.

In 2012, 86.6 percent of all mortgages originated in New England were conventional loans, which is 1.3 percent higher than in 2011. However, the share of conventional loans in 2012 remains significantly smaller than in 2006, when it was 97.1 percent. It is also notable that although the percentage of conventional home-purchase loans increased from 63.8 percent in 2011 to 68.5 percent in 2012, the proportion of conventional refinance loans decreased slightly, from 92.7 percent to 91.4 percent. The percentage of conventional loans for home purchase dropped from 94.8 percent in 2006 to 67.4 percent in 2012. The prevalence of FHA mortgages among New England's financed home buyers, on the other hand, climbed from a mere 4.0 percent to 24.1 percent over the same period. On the refinance side, conventional loans have continued to dominate the market. In 2006, financial institutions reported that 98.7 percent of all refinance mortgages were conventional, and the 2012 data revealed a drop to 93.0 percent. The corresponding share of FHA loans increased by only a few percentage points, from 1.2 percent to 5.5 percent.

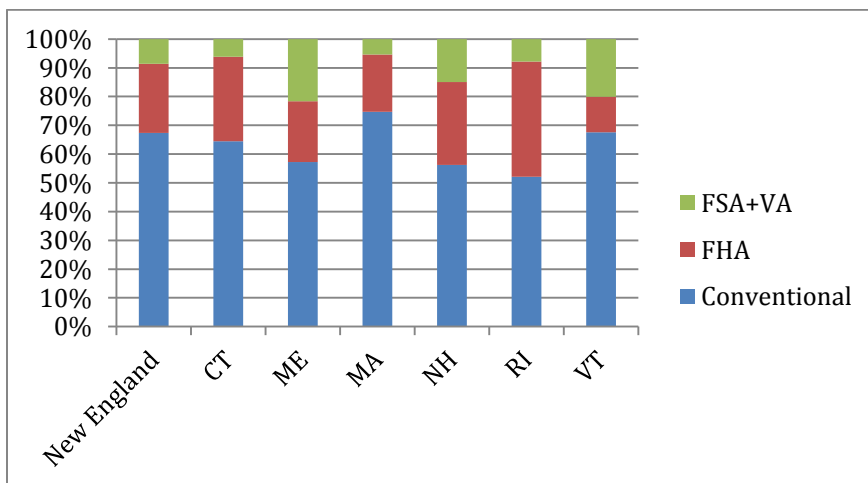
¹² Jack M. Guttentag, "[Sub-prime 2013 Edition: It Is Government Insured!](#)" *HuffPost Business*, May 2, 2013.

Figure 7. Home-Mortgage Loan Origination in New England by Type of Loan, 2006 and 2012



At 11.1 percent, Vermont has the lowest percentage of FHA home-purchase loans. Massachusetts has the second-lowest rate, at 18.2 percent. Conversely, at 37.1 percent, Rhode Island has a particularly high rate of FHA home-purchase loans.

Figure 8. New England Home-Purchase Loan Originations by State and Type of Loan (as a Percentage of Total Originations), 2012

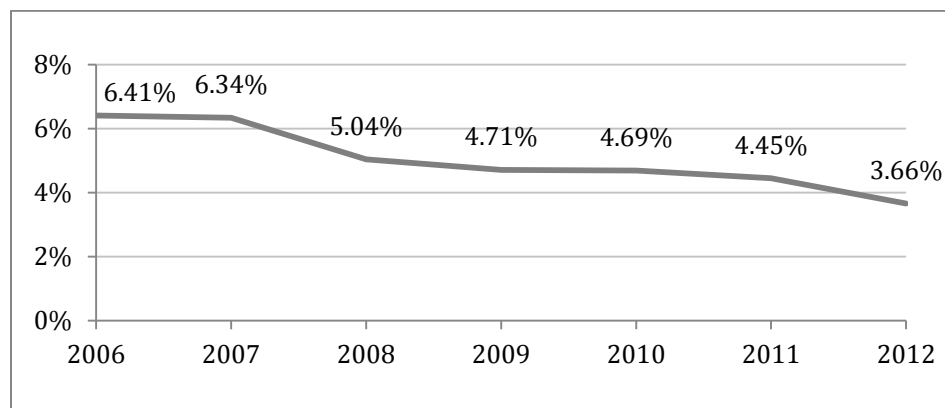


New England's Mortgage Market and Lending Outcomes by Race and Income

This section of the paper analyzes home lending patterns in New England in terms of income and race/ethnicity. As mentioned, the HMDA data set in its current form does not provide information on key variables, such as borrowers' credit scores and histories, which would make possible in-depth investigation of patterns of unfair lending based on race or place of residence, but it does illuminate interesting trends with regard to differential lending outcomes for minority and low-income applicants.

As mortgage interest rates went into steep decline in the aftermath of the 2008 financial crisis, consumer demand for lower housing payments made refinancing the dominant activity in the housing credit market. According to data collected by the Federal Home Loan Mortgage Corporation (Freddie Mac), in 2012, conventional 30-year fixed mortgage rates were at their lowest point since 1971, with November and December marking the trough of the long-term interest rate trajectory, at 3.35 percent.¹³

Figure 9. Conventional 30-Year Fixed-Mortgage Rates, Annual Averages 2006–2012¹⁴



The 30 percent surge in the volume of loan applications from 2011-2012 highlights the differential impact of historically low mortgage interest rates on both homebuyers and homeowners in a recovering housing market. But what types of borrowers, in terms of demographic and economic profiles, drove the sharp increase in demand for new home loans? The following analysis addresses this question by examining ways in which applicants' borrowing behavior and outcomes differed by race/ethnicity and income level.

¹³ Freddie Mac, "[30-Year Fixed-Rate Mortgages since 1971](#)," 2014.

¹⁴ Ibid

Home-Purchase and Refinance Origination, Denial Rates, and High-ARP Prevalence by Race

In 2012, white borrowers received the vast majority of all originated loans (81.3 percent), with black and Latino borrowers accounting for only 1.5 percent and 2.3 percent of those approved mortgages, respectively. The graph below shows that black and Latino origination plummeted by 62 percent and 56 percent, respectively, in the 2006–2012 period, while home-purchase originations by whites and Asians increased by 24 percent and 119 percent, respectively, over the same period. The racial disparities in refinance lending in 2006–2012 are even more glaring. Refinance originations for blacks and Latinos dropped by 54 percent and 44 percent, respectively, while they grew for whites and Asians by 74 percent and 399 percent, respectively. These data underscore that blacks and Latinos have not participated in the post-2008 refinance boom to the same extent as whites and Asians—indeed, their rates of approval for both home refinance and home purchase have declined substantially since 2006.

Figure 10. Home-Purchase Loan Originations in New England by Race/Ethnicity, 2006–2012

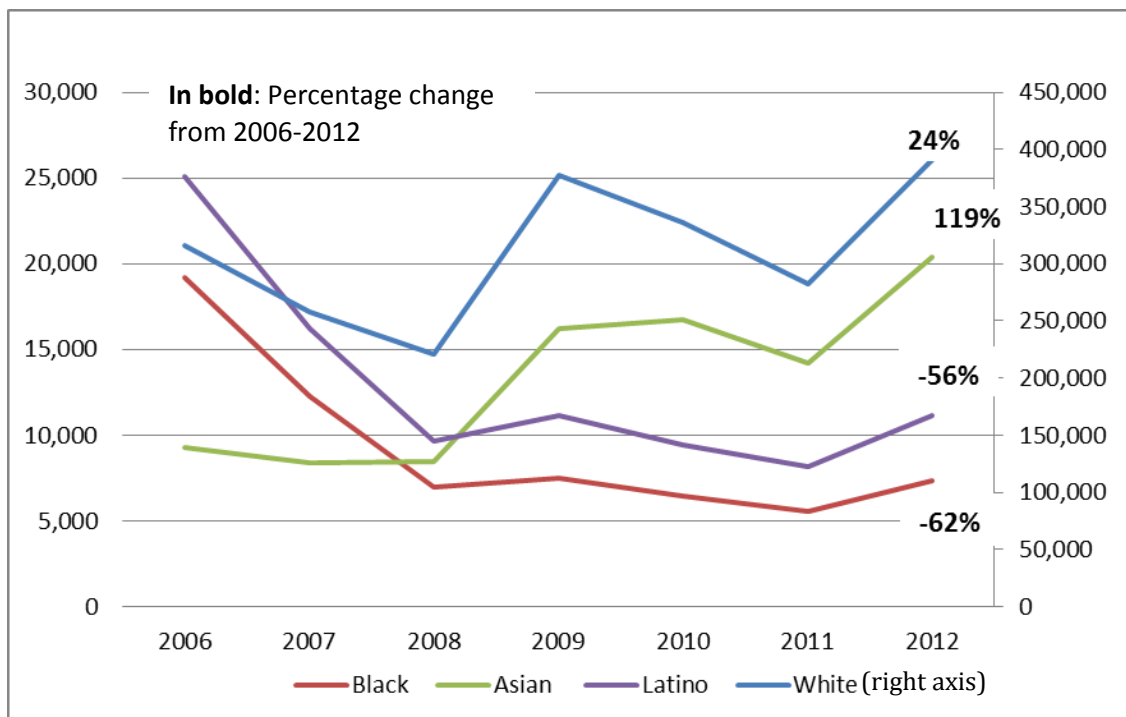
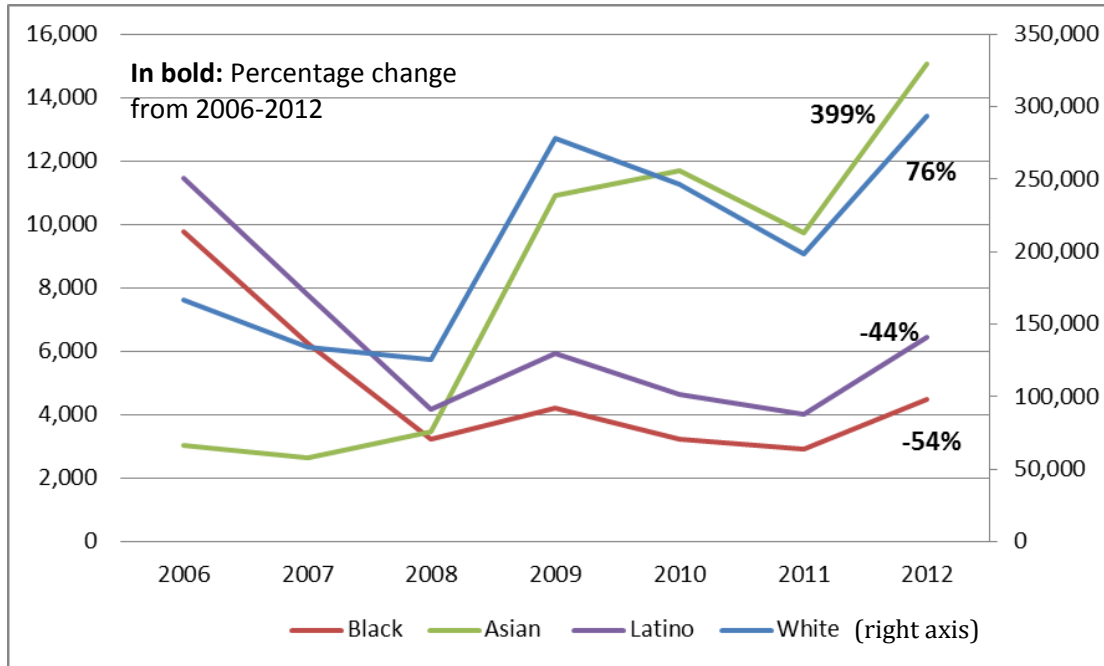
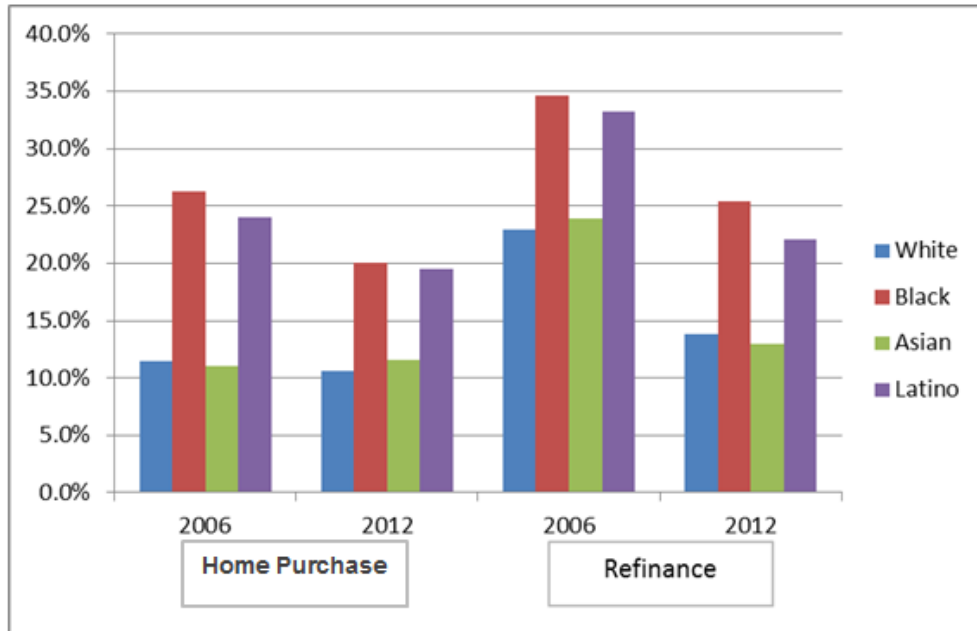


Figure 11. Refinance Loan Originations in New England by Race/Ethnicity, 2006–2012



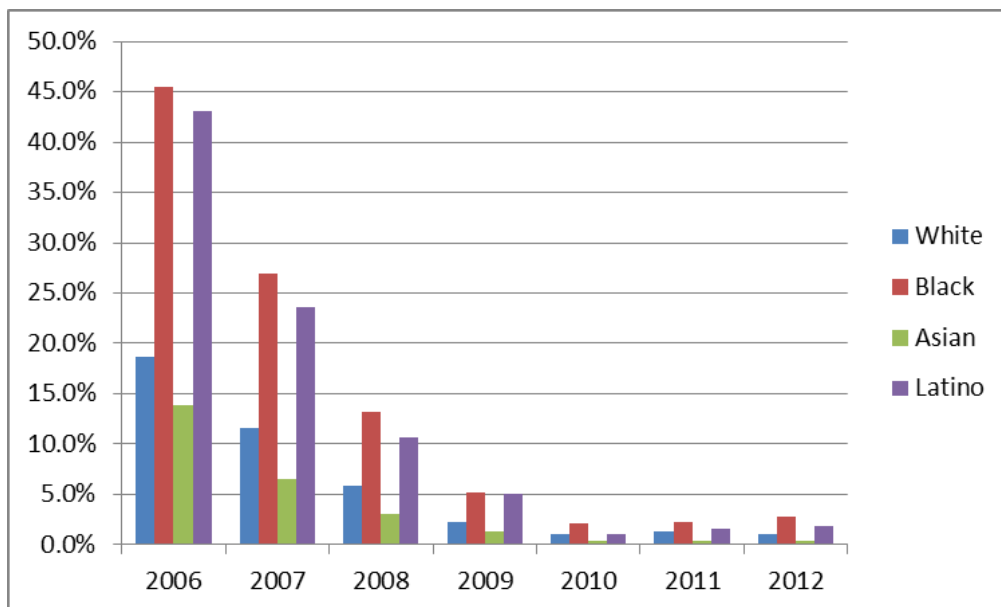
While the proportions of denied applications have decreased slightly for every race/ethnicity in New England, *blacks and Latinos were almost twice as likely as their white counterparts to have their applications declined for both home-purchase and refinance purposes*. Overall, the highest rates of loan denials in 2012 were to black and Latino borrowers in the home-refinance category (25.4 percent and 22.1 percent, respectively). It is notable that the 2012 denial rates for blacks and Latinos are down considerably when compared with the corresponding 2006 figures, which were 39.7 percent and 37.8 percent, respectively.

Figure 12. Denial Rates by Race/Ethnicity in New England, 2006 and 2012



In 2012, the share of high-APR loans was under 3 percent for all racial/ethnic groups, which represents a tremendous drop in this loan category from 2006, especially for minority borrowers. High-APR loans comprised almost half of all originated loans (45.5 percent and 43.1 percent, respectively) for blacks and Latinos in 2006.

Figure 13. New England High-APR Loans by Race/Ethnicity (as a Percentage of Total Loans), 2006–2012



Differential Incidence of Conventional Home Mortgages by Race

The HMDA data set for 2012 shows that blacks and Latinos had the lowest shares of conventional loan originations (58 percent and 63 percent, respectively), and this dynamic has persisted since 2006. Whites and Asians have the highest shares of conventional loan originations (86 percent and 90 percent, respectively), but these proportions are considerably lower than the 2006 figures (97 percent and 98 percent, respectively).

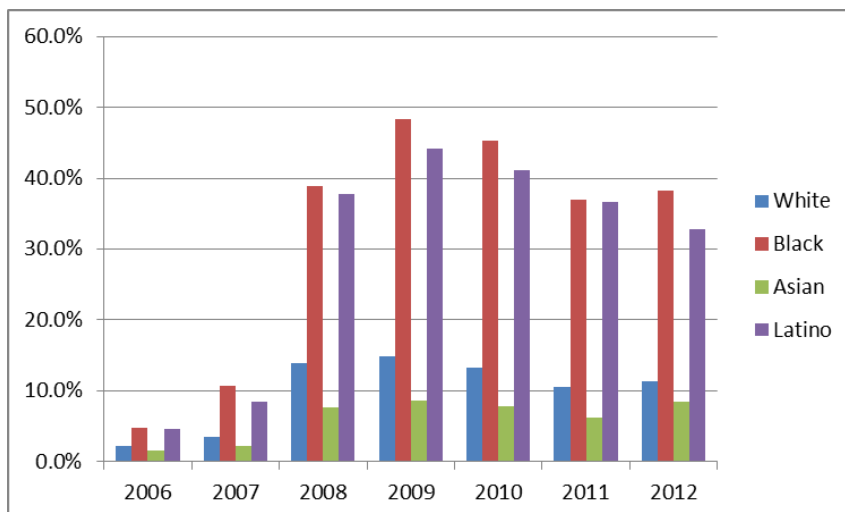
Prevalence of Nonconventional Loans among Minority Applicants

As discussed in the previous section, the number of New England borrowers taking out nonconventional mortgages—mortgages backed by the FHA, VA, and FSA—increased markedly from 2006 to 2012. It is important to underscore that black and Latino applicants are overrepresented in the FHA loan category. For instance, over 38 percent of all black home-loan borrowers and about 32 percent of their Latino counterparts received FHA loans in 2012. *White borrowers, on the other hand, are about 3.5 times less likely than blacks to receive an FHA loan.*

The graph in Figure 14 depicts the proliferation of FHA-backed loans from 2006 to 2012.

Though the share of FHA loans has risen dramatically for black and Latino mortgagors since 2006, it seems that this growth is beginning to taper, as indicated by the 2012 figures. In 2009, 48 percent of all mortgage loans to blacks and 44 percent of all mortgage loans to Latinos were FHA sponsored, but in 2012, these shares decreased to 38 percent and 32 percent, respectively.

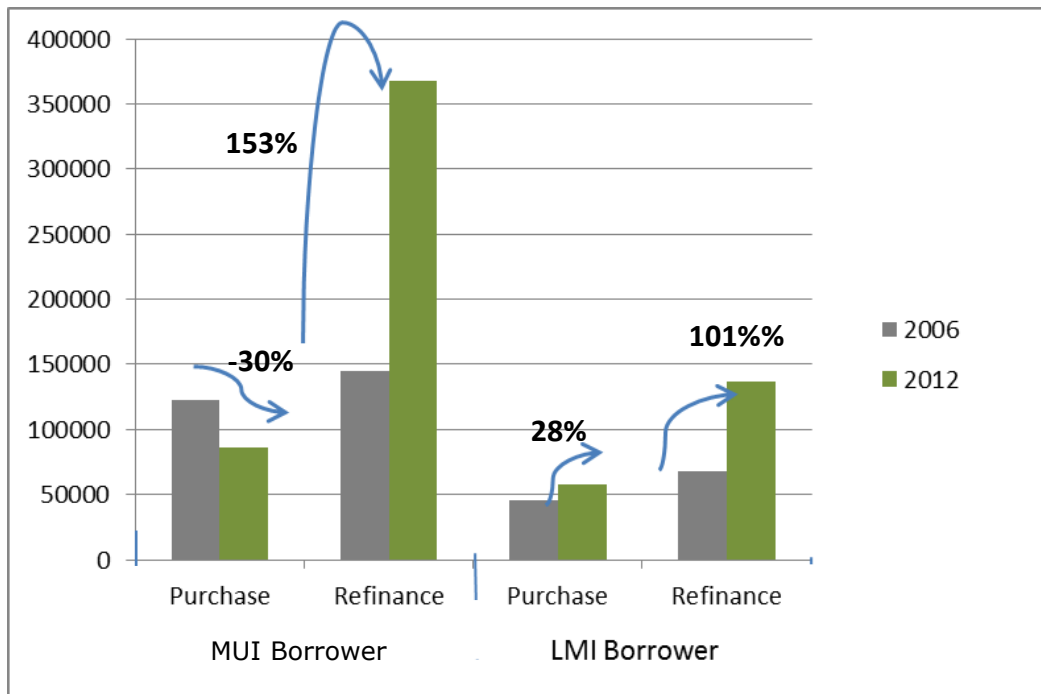
Figure 14. FHA Originated Loans by Race/Ethnicity, 2006–2012



Home Purchase and Refinance Origination by Income and Geography

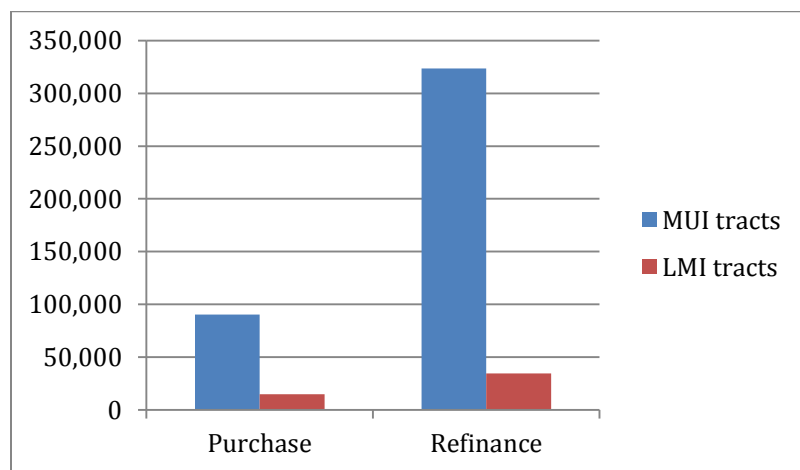
In 2012, MUI applicants were almost 2.7 (middle income) and 1.5 (upper income) times more likely to receive refinance and home-purchase credit than their LMI counterparts. This means that MUI householders received about 73 percent of all refinance originations and 60 percent of the total home-purchase mortgages reported for the year. Interestingly, the number of home purchase originations by wealthier borrowers plummeted by about 30 percent from 2006 to 2012, while the volume of LMI purchase loans actually increased by about 28 percent. However, the MUI group has demonstrated 153 percent growth in refinance origination, whereas the LMI group has not participated in this market segment to the same extent, though it still showed a 101 percent increase in refinance loans from 2006 to 2012. The graph below provides a sense of each group's changes in borrowing behavior relative to its own activity seven years ago, while also comparing them to each other in absolute terms.

Figure 15. New England Home-Purchase and Refinance Originations by Borrower Income, 2006 and 2012



HMDA data indicate that lending patterns also differ by LMI and MUI geographies. In 2012, less than 10 percent of all home-purchase originations came from LMI census tracts.¹⁵ Similarly, borrowers living in LMI tracts accounted for only about 14 percent of all refinance originations. While it is useful to compare the lending activity in LMI/MUI areas over time, the 2012 data reflect new census-tract boundary changes made by the U.S. Census Bureau for the 2010 census,¹⁶ which limits comparative analysis with the previous years.

Figure 16. New England Home-Purchase and Refinance Originations by Census Tract Income in 2012



Differential Incidence of Conventional Home Mortgages by Income

MUI New Englanders were more than two times more likely to receive a conventional mortgage than LMI applicants, and this dynamic was at play in each of the six states in the region in 2012. The graph below shows that Massachusetts and Rhode Island had the greatest gaps between LMI and MUI borrowers (differing by 42.3 percent and 36.4 percent, respectively). When analyzing the incidence of conventional mortgages by the refinance and home-purchase categories, it is worth noting that the vast majority (over 90 percent) of both MUI and LMI borrowers use conventional refinance credit. The same pattern does not hold true in the home-

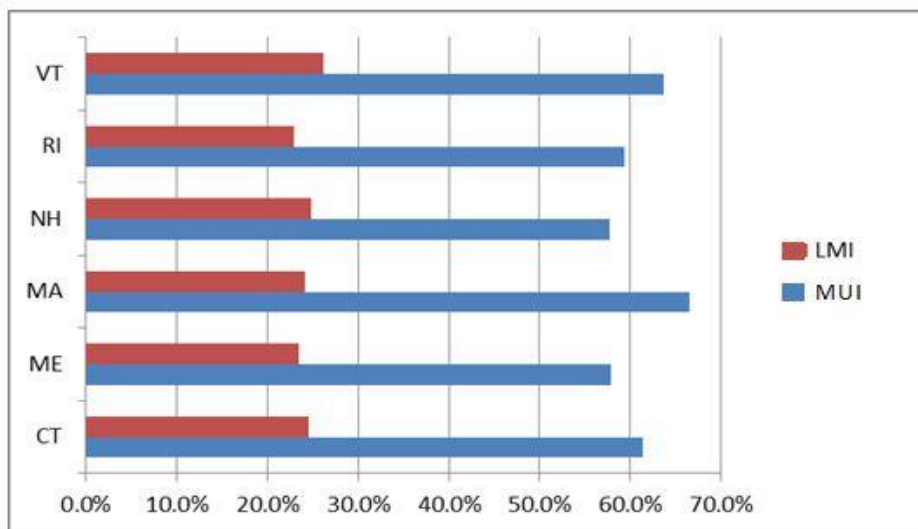
¹⁵ LMI census tracts are census tracts with median family income below 80 percent of the MSA median family income. Census tract income is based on the 2006–2010 American Community Survey and census 2010 Summary File 1 data.

¹⁶ Census demographic data for the year 2012 were updated in June 2012 using 2006–2010 ACS and census 2010 SF1-based data. Links to explanations of the FFIEC’s geocoding system are available at FFIEC, “[Geocoding System](#),” January 15, 2014.

purchase market. Only about three-fourths of MUI home buyers and about 55 percent of their LMI counterparts received conventional mortgages.

These figures suggest that significant proportions of both higher- and lower-income New Englanders are buying homes using nonconventional mortgage products, which represents a shift in people's borrowing patterns from 2006. In the few years leading up to the 2008 financial crisis, the vast majority of MUI and LMI homebuyers received conventional mortgages, and the current proliferation of nonconventional credit among all income segments may imply that conventional loan requirements are too burdensome for even the higher-income applicants.

Figure 17. New England Conventional Mortgage Originations by State and Borrower's Income (as a Percentage of Total Originations), 2012

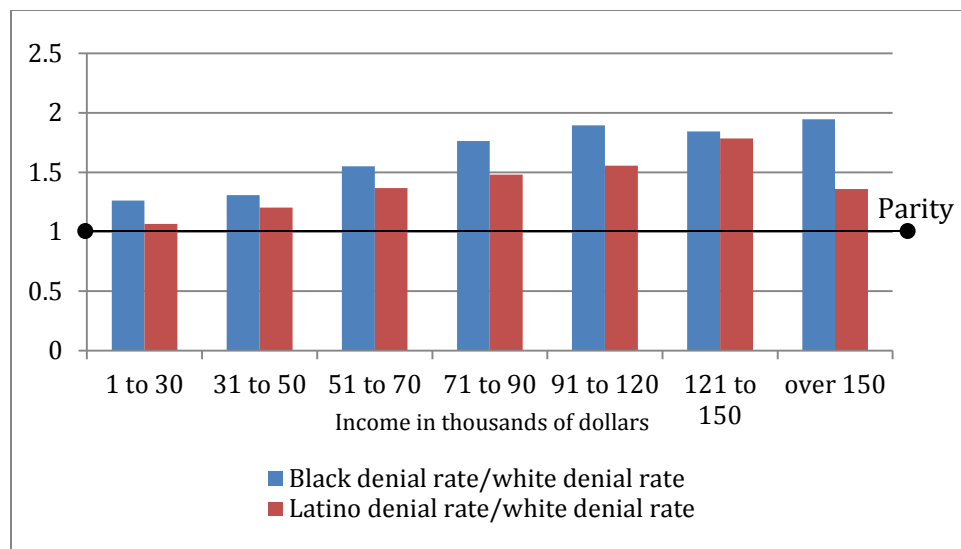


Mortgage Denial by Race and Income

When home-mortgage denial rates are analyzed in terms of both race *and* income, it is striking that prospective black and Latino borrowers in the top three income brackets (\$91,000–150,000+) are between 1.5 and 2 times more likely to be denied financing than their white counterparts. The graph below displays the denial disparity ratios by income. It is clear from this graph that both blacks and Latinos are denied at higher rates than whites at every income

level and that the disparities between black and white denial rates are greater than those between Latino and white borrowers for all income cohorts. Though the HMDA data do not provide enough variables to identify cases of discrimination by race in the lending market, these observations do highlight important social dynamics in today's mortgage market.

Figure 18. Black and Latino Denial Disparity Ratios by Income, 2012



Concluding Remarks

While 2012 HMDA data reveal a substantial increase in lending activity in New England compared with 2011, this surge in mortgage originations is driven primarily by a 48 percent growth in refinance debt, with a modest increase in demand for home-purchase loans. Furthermore, despite the ongoing refinance boom, key racial/ethnic minorities and lower-income homeowners are participating in this market at much lower rates than their white and or MUI counterparts. Nonconventional loans were far more prevalent among LMI individuals, blacks, and Latinos than among higher-income borrowers and white applicants. Not only were three-fourths of 2012's refinance originations generated by MUI homeowners, but white borrowers accounted for the majority of them in both LMI and MUI categories. Though the HMDA data alone cannot reveal the reasons behind the disparate lending dynamics by race and income, they do offer a snapshot of activity and products in the mortgage market as well as the social profiles of borrowers seeking housing finance.