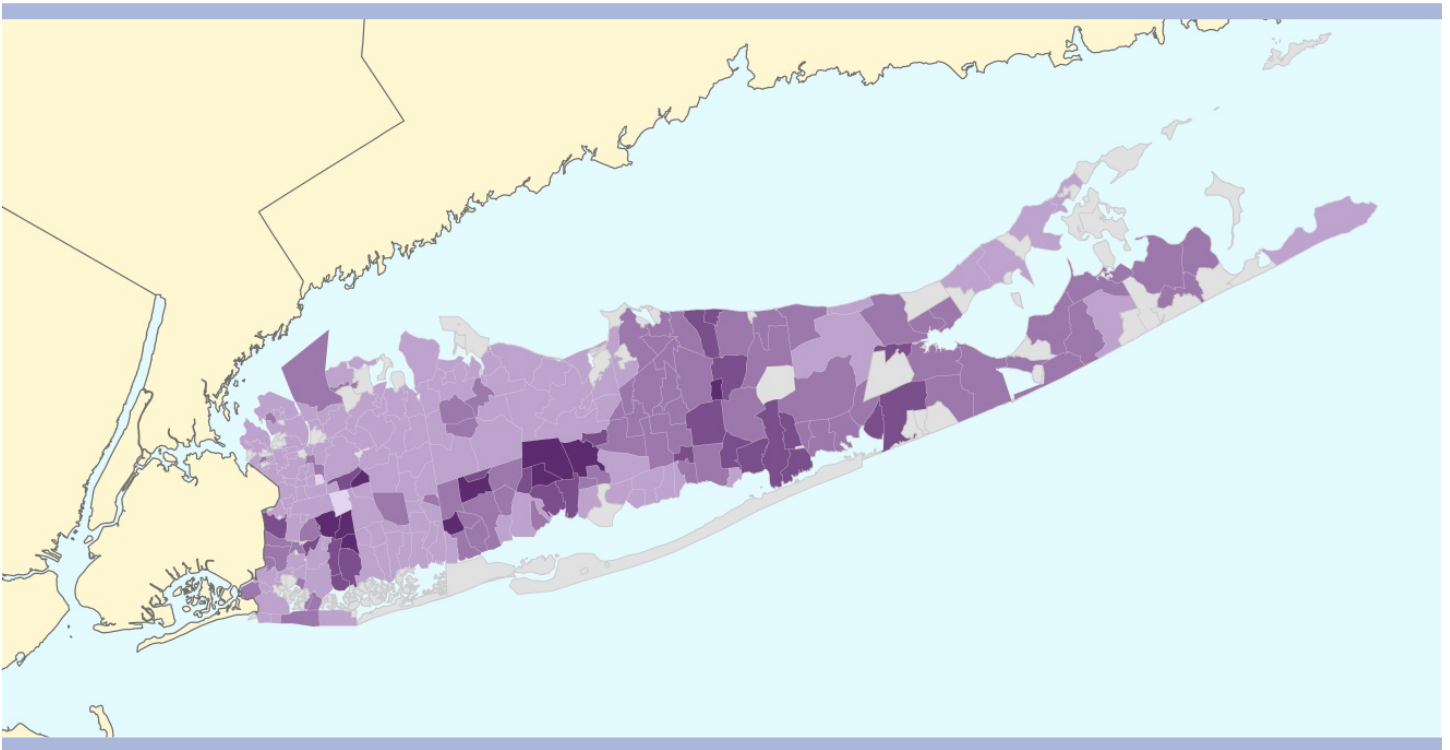# An Uneven Road to Recovery:
Place, Race, and Mortgage Lending on Long Island

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An Uneven Road to Recovery:
Place, Race, and Mortgage Lending on Long Island

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

With the onset of the housing crisis, mortgage lending dropped sharply across the United States, and Long Island was no exception. Total lending fell by more than half from its peak during 2005-2006 to its trough four years later. Yet, this decline was not experienced evenly by individuals or communities in the region. Mortgage lending to Black and Latino borrowers dropped more sharply than to white and Asian borrowers, and lending in majority-Black and Latino communities dropped more sharply than lending in majority-white communities. Although foreclosures have ebbed, homeownership rates have fallen, and housing markets in the areas that were hardest-hit by foreclosure remain relatively stagnant.

This report attempts to document and understand the loss of mortgage activity on Long Island from 2005 to 2012. We draw primarily from Home Mortgage Disclosure Act (HMDA) data that registers every mortgage process in the region, as well as from 20 select interviews with loan counselors, realty agents, and lenders.

Our analysis reveals racial and ethnic disparities by applicant group, place, and institution:

- **Applicant groups:** Although our research is not conclusive, it suggests that Black and Latino applicants and applicants from communities with higher percentages of Black and Latino residents were more likely to be denied for a loan, or to receive an FHA or high-rate loan in 2011-2012, even when holding variables like sex, income, and several loan characteristics constant.

- **Places:** We examined lending by community (or Census "place"), and found that places that saw the smallest decline in lending and had the highest rate of total and conventional lending in 2011-2012 – the "top cluster" – were overwhelmingly white. Those communities where lending declined sharply and received the lowest rate of lending – the "bottom cluster" – were majority-Black and Latino. These were the same areas that bore the brunt of the foreclosure crisis.

- **Institutions:** We measured loans originations by Long Island's leading lending institutions during 2005-2012. Of the six major lenders that survived the housing crash, five lent at much higher levels to the top cluster than to the bottom, and the gap widened from 2005-2012. The sixth company specializes in FHA loans and is more active in the bottom cluster.

Based upon our analysis of the quantitative data and interviews, there are a number of explanations that likely explain the racial/ethnic disparities, both among applicant groups and among communities:

National factors

- **General tightening of credit:** The flight from risk after the recession has diminished lender appetite for risk, both among lenders and within the public and private secondary market.

- **Unintended consequences of financial reform:** Policy changes made in the name of consumer protection have made the mortgage process more difficult for borrowers and lenders alike.

Local and regional factors

- **Lingering effects of subprime lending:** Foreclosures and short sales continue to make some neighborhoods less desirable for consumers. Negative equity continues to make it difficult for owners in hard-hit (and disproportionately-Black and Latino) communities to move. Bargain-hunting investors are also outcompeting homebuyers.

- **Past housing discrimination and current patterns of segregation:** These lingering effects of subprime lending can be traced to past discriminatory practices. Segregation and redlining created a segmented market that concentrated the effects of subprime and predatory lending on Black and Latino households and communities.

- **The FHA dual market:** Market segmentation continues as rates of FHA lending are high among these households and communities, explaining the disparity in conventional lending. This development is worrisome given the rising cost of an FHA loan over the term of a mortgage.

Institutional factors

- **Underwriting policies and products:** Lenders have varied in their response to the subprime collapse, with some tightening credit to a greater degree than others. This partly reflects the decisions made by regional and local staff, who retain some autonomy to extend or deny mortgage access..

- **Unfair lending:** Our model suggests that discrimination and redlining may be playing a role in the regional mortgage market, warranting further research. A lack of affirmative marketing and concerted outreach, rather than outright violation, may leave communities underserved in the wake of the crisis.

Individual factors

- **Household financial stress, shifting preferences, and greater financial literacy:** The recession strained household budgets, caused defaults, and added to the overall debt load, all of which are barriers to home purchase. Employment in the post-recession period has been slow to rebound, and income at the middle and lower ends of the spectrum remain depressed. Both factors may have dampened consumer demand. The crisis also made consumers leery of homeownership, as they have become more literate about its risk and benefits. Although consumers may better understand their options, they have fewer of them.

Based on our analysis, we make recommendations for policy and practice at the federal, regional, institutional, and individual levels. Our recommendations are oriented towards establishing a fair and equitable framework for financing homeownership options in the suburban Long Island region.

BACKGROUND

The collapse of the subprime market triggered the longest and deepest recession in U.S. history since the Great Depression. Between September 2008 and July 2014, over five million homes completed the foreclosure process in the United States.[1] Foreclosure, falling property values, and unemployment cost homeowners trillions of dollars in lost home equity – a key component of household wealth – and battered household credit.

The subprime boom and bust had clear racial and ethnic contours. Soon after the crisis began, research confirmed what community advocates had long known: Latino and non-Latino Black/African American borrowers were disproportionately the target of predatory lending practices, and received high-rate loans with features that pitched those households headlong towards foreclosure.[2] Local and national-level studies showed that foreclosed borrowers were indeed disproportionately Black and Latino, and that foreclosures were concentrated in majority-Black and Latino communities.[3]

The same pattern has been well documented on Long Island. Reports by the National Center for Suburban Studies, the Empire Justice Center, and New York Communities for Change have revealed that both high-rate lending and foreclosure were clustered in a string of communities in the southern and central sections of the island. The hardest-hit ZIP codes were majority Black and Latino communities like Hempstead Village and Elmont in Nassau County and Central Islip and Brentwood in Suffolk (Figures 1 and 2).[4]
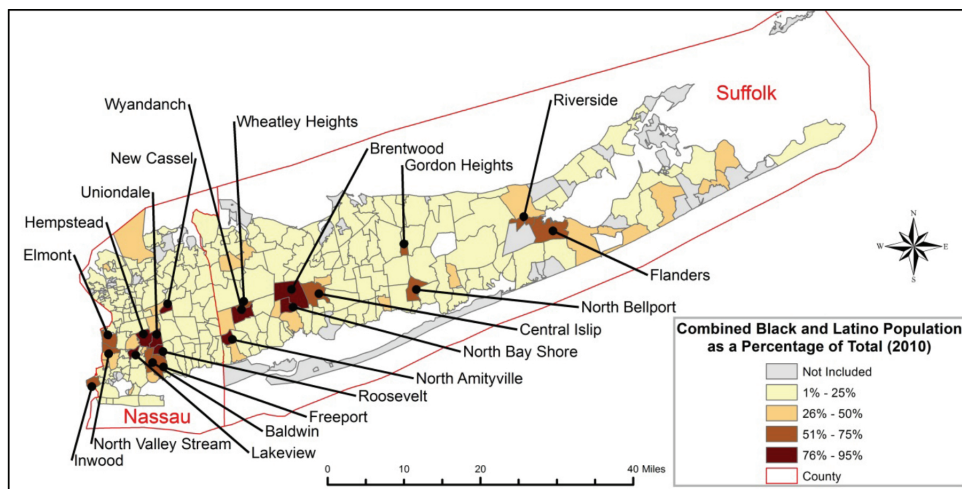

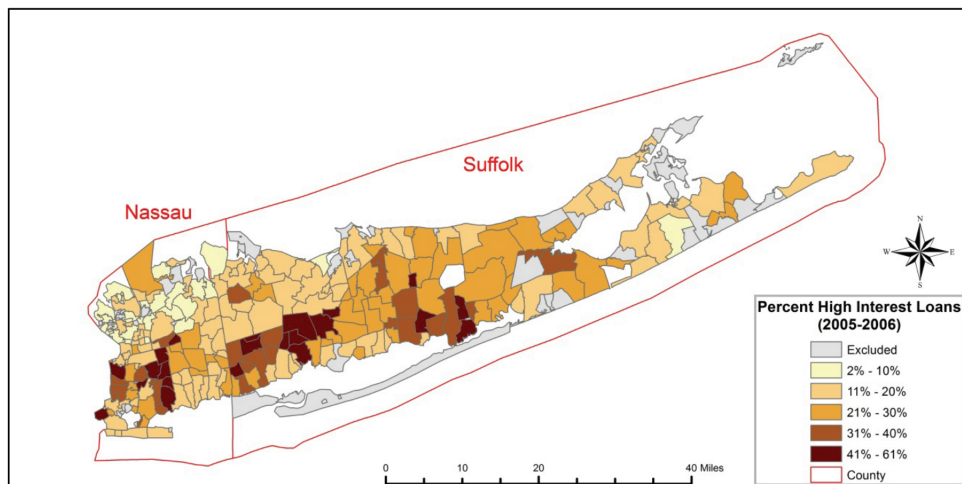Figure 1. Combined Black and Latino Population as a Percentage of Total, 2010

Figure 2. High-interest Loans as Percentage of Total First-Lien Home Purchase Originations, 2005-2006

In the wake of the crisis, the home finance landscape shifted dramatically. Credit tightened, and with the rapid failure of subprime lenders, underwriting standards veered from extremely permissive to extremely restrictive. Private capital investment evaporated, and new private-label mortgage-backed securitization dwindled to nearly zero. In response, FHA activity and securitization through Ginnie Mae vastly increased to meet the demand for low-down-payment mortgage products. Congress responded weakly to the plight of owners facing foreclosure, but did manage to pass the Wall Street Reform and Consumer Protection Act (Dodd-Frank), which introduced a suite of regulatory changes and created the Consumer Financial Protection Bureau (CFPB). The CFPB's charge included broad oversight of the financial sector, including protecting consumers from predatory and exploitative lending practices.

During the same period, however, a growing group of fair lending advocates became alarmed that low-income communities and majority-Black and Latino communities were being cut off from mortgage capital altogether. Home purchase lending had fallen, and denial rates had risen, creating a lending environment that reminded some community activists of the "bad old days" of redlining. It seemed as though communities of color had gone from no credit, to bad credit, and then back again to no credit. A nationwide coalition of non-profit housing groups released a series of reports entitled *Paying More for the American Dream* that documented the decline of prime lending, absence of new refinancing, and heavy reliance on FHA among Black and Latino communities and households across the country.[5] On Long Island, an August 2012 NCSS report – sponsored by Bethpage Federal Credit Union – examined how lending had changed since 2005. Many of the region's Black and Latino communities, which were epicenters of subprime lending and foreclosure, received few loans in 2009-2010.[6]

This report updates and extends our earlier research. We begin with a brief overview of the report's data sources and methods. We then discuss our basic findings with respect to access to mortgage lending and price of credit for different applicant groups. We turn to originations at the neighborhood level, and then examine where Long Island's leading institutions are making their loans. Finally, we put forth several explanations for the racial/ethnic disparities that we observe among applicant groups, neighborhoods, and institutions, and offer a few recommendations to remedy them.

DATA AND METHODS

The core dataset that we used for this report is Home Mortgage Disclosure Act (HMDA) data for 2005 to 2012, available from the Federal Financial Institutions Examination Council (FFIEC) and the National Archives and Records Administration (NARA). Nearly all lending institutions in U.S. metropolitan areas must annually submit a HMDA Loan Application Register (LAR) that includes their applications received, approvals, denials, originations, and purchased loans during a given year.

Although HMDA's coverage is broad, the information available for each individual loan is limited. The datasets provide basic information about borrower sex, race, ethnicity, and income; loan purpose, size, federal insurance, lien status, and rate spread[7]; and basic property characteristics and Census tract location. These variables allowed us to select owner-occupied, first lien, home purchase mortgages on 1-to-4-unit dwellings, which are the focus of this report except where specified otherwise. Importantly, HMDA data do not provide information on borrowers' credit scores, loan-to-value ratios, debt-to-income ratios, or detailed mortgage terms. The Consumer Financial Protection Bureau is currently considering the addition of these data fields to HMDA.

We analyzed these data in three ways. First, we used a series of binary logistic regression models to explain which applicant characteristics are related to the likelihood of being denied a loan, receiving an FHA loan, and receiving a high rate loan.

Second, we examined geographic lending patterns at the scale of Census places, which include village-level governments on Long Island (e.g., Garden City, Lindenhurst), as well as various unincorporated communities that the Census designates as Census Designated Places or CDP's (e.g., Roosevelt, Hauppauge). We matched the tracts provided by HMDA with Census places by using the MABEL/GeoCorr tract-to-place crosswalk for Nassau and Suffolk Counties. When a tract was split between multiple places, we used the crosswalk's allocation factor to weight the tract data.[8] This allows us to estimate total lending and conventional lending by place. We then identified clusters of places that saw little or no decline in lending during the recession and had the highest rate of total and conventional lending in 2011-2012 (the "top cluster") – and those that saw sharp declines and had the lowest rate (the "bottom cluster"). We employed Census data to provide a socioeconomic profile of these communities.

Third, we considered lending by institution. Each HMDA LAR loan record contains ID numbers that we matched to accompanying transmission sheets to identify the institution and its parent (if applicable). This allows us to examine how many loans each institution made in the top and bottom clusters during the study period.

We supplemented our analysis of HMDA with interview data. We conducted twenty targeted telephone interviews with first-time and pre-purchase counselors, realty agents whose offices are located in bottom-cluster communities, and mortgage specialists who work for major regional lenders. We prepared a semi-structured survey instrument for each group of interviewees, modifying our questions as new themes emerged in each interview. Our goal was not to develop a representative survey. Rather, we sought out experts who could provide insight on how the home search and financial process has changed over time. Since our HMDA data only extends to 2012, we asked several questions related to recent shifts in the market. These interviews helped us to interpret the results of our quantitative data analysis, and develop some tentative explanations.

LENDING DISPARITIES AMONG APPLICANT GROUPS

Mortgage volume dropped on Long Island from 2005 to 2012: total annual home purchase lending fell from $13.2 billion to $5.6 billion, while originations fell from about 37,000 to 16,000. The decline was sharpest in the immediate aftermath of the financial crisis (2007-2008), as the bankruptcy and absorption of several subprime lenders led to a rapid loss of credit. Lending continued to decline in 2009-2010, but leveled off in 2011-2012. Although the trend was common to all racial and ethnic groups, lending to Black and Latino borrowers fell more significantly than lending to non-Latino whites or Asians (Figure 3).
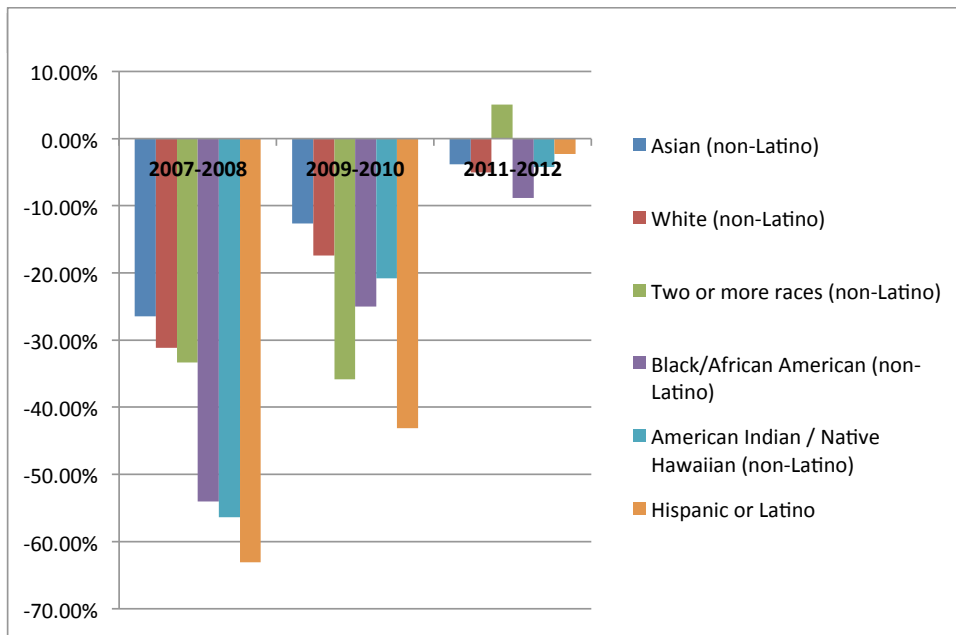
Figure 3: Change in Originations, by Race and Ethnicity, 2005-2006 to 2011-2012

The overall homeownership rate on Long Island grew during the heyday of subprime lending, but by 2012, it had dropped to just below its 2000 level. In 2000, there were ten-point gaps between ownership rates for non-Latino whites (84 percent), Asians (75 percent), Blacks (65 percent), and Latinos (55 percent).[9] A decade later, there has been a dual convergence: white and Asian households in the 80-85 percent range, and Blacks and Latinos near the 60 percent mark. At first blush, it appears that Black households suffered the greater loss in homeownership, as their rate fell nearly 3 percent on net, to a level just 1 percent about where the rate stood in1990. Although Latino households seem to have fared better, their 3 percent net gain masks a 10 percent jump during the boom, followed by a 7 percent drop. This drop reflects the widespread effects of the crisis in Long Island's Latino communities, one with severe consequences for household wealth-building, credit, and general well-being.
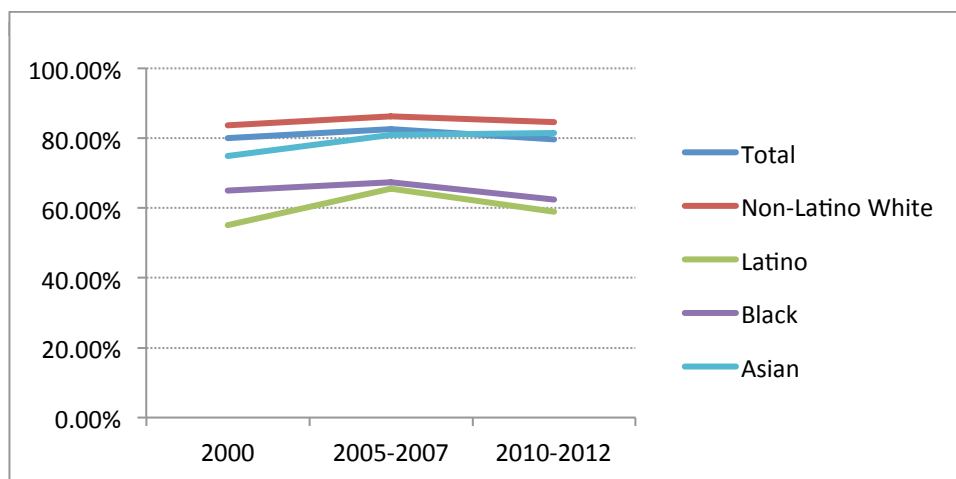
Figure 4. Homeownership Rates by Race and Ethnicity, 2000-2012
(Source: Decennial Census, 3-year American Community Survey)

Aside from these historical changes, there are also significant disparities between how often groups are denied loans or are approved for more expensive FHA loans, rather than conventional ones. Overall home purchase denial rates are more than twice as high for Black borrowers as for whites, and nearly twice as high for Latinos as well (Figure 5). When Black and Latino borrowers are able to secure financing, the loan is often insured by the FHA, which charges additional monthly premiums (Figure 6).
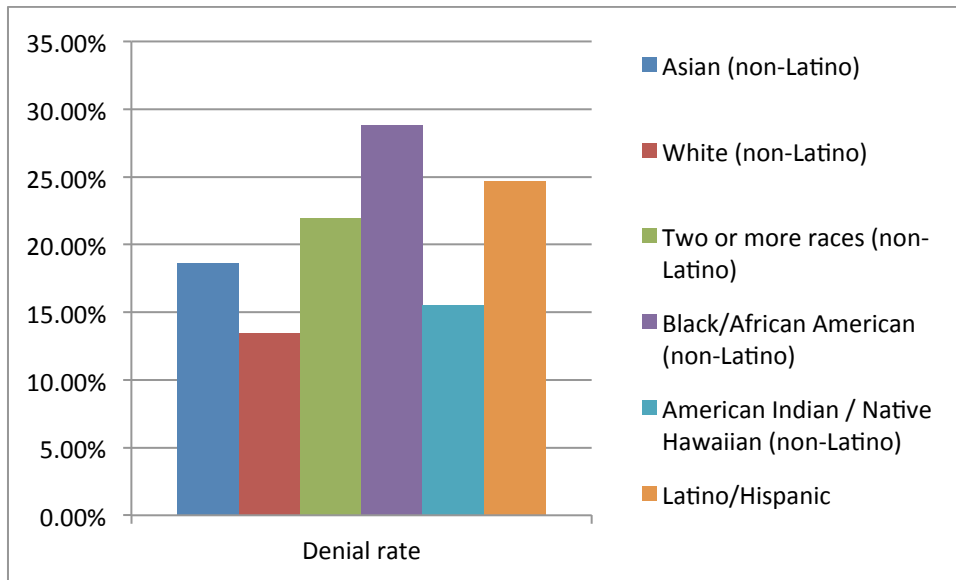
Figure 5: Denial Rates by Race, 2011-2012
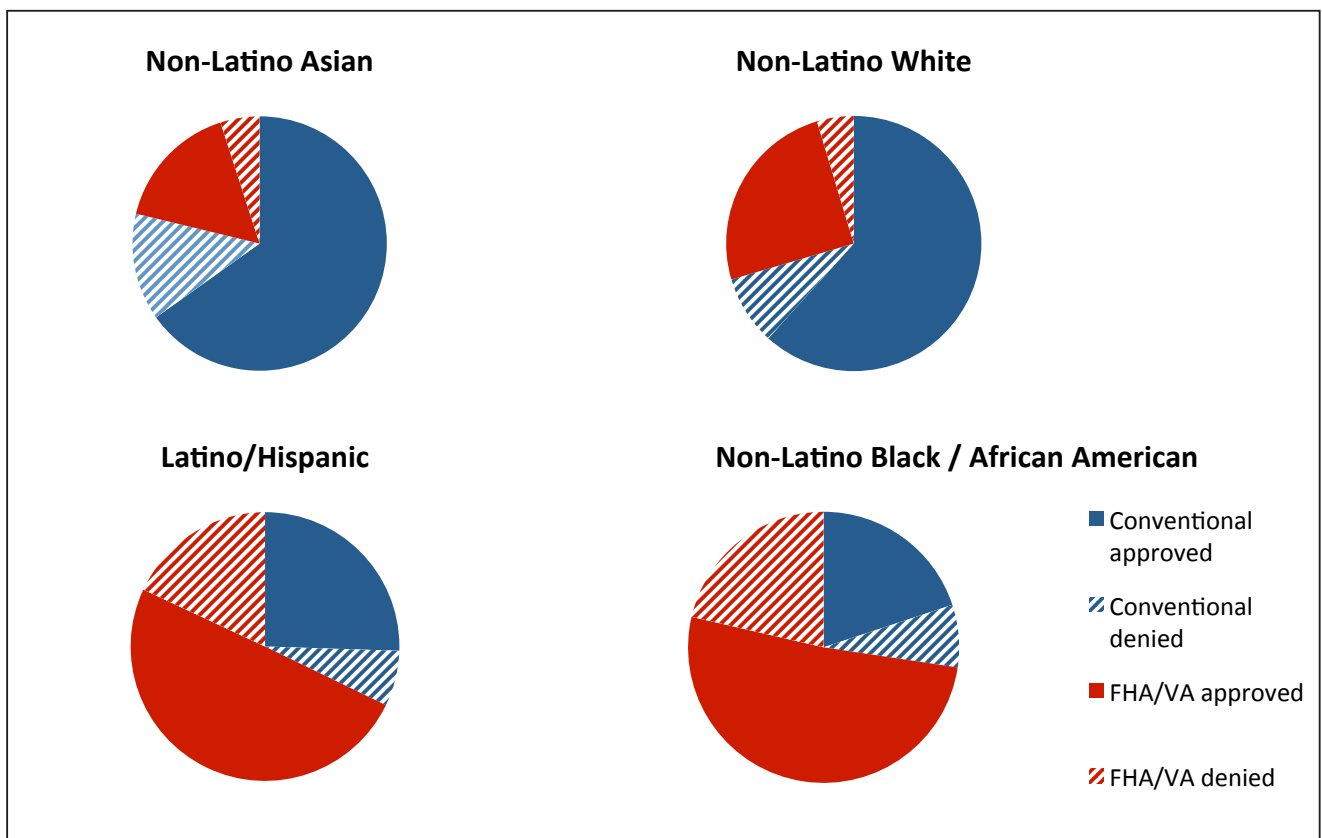
Figure 6: Lender Decisions on Completed Applications, by Race/Ethnicity and Government Insurance, 2011-2012

These differences are striking, but it is hard to tell whether they are directly related to race, or whether they are related to race through other household characteristics like income. To understand the interaction of borrower income, race, ethnicity, and location of the property, we conducted a mortgage application denial analysis.

We developed predictive models of loan denials and originations of high-interest loans based upon HMDA data for loan applications submitted in 2011 and 2012. As noted above, the analyses we summarize in this report are based upon owner-occupied, first-lien home purchases. Moreover, we note at the outset that this attempt has been hampered by the limited data that are available for inclusion in the analyses. Unfortunately, the Home Mortgage Disclosure Act does not mandate that lenders report on some key aspects of applicants' profiles. In particular, lenders do not include applicants' credit scores, income-to-debt ratios, or loan-to-value ratios in their HMDA reports. Presumably, all three pieces of information are key elements in both approval and loan pricing decisions.

In the context of the absence of that information, we performed the analyses on the basis of borrower application information included in the HMDA reports supplemented by relevant community-level data from the 2010 census (*e.g.*, median income, percentage minority residents, percentage homeowners, population size, etc.). We utilized binary logistic regression to model both loan application denials and the origination of high-interest mortgages.

Binary logistic regression is well suited to the study at hand. It is used to determine outcomes that result in one of two possibilities (*e.g.*, loan acceptance vs. denial; market-rate mortgage rates vs. above-market mortgage rates) based on a combination of quantitative and qualitative predictors. Ideally, the statistical procedure produces a model that provides a "good fit" with the empirical data, and also accounts for a high percentage of the patterns reflected in the data (high "explained variance" or R square). In such circumstances, one can draw strong conclusions from the statistical models. Results that are less than "ideal" ' can still provide the basis for suggestive evidence that, at minimum, warrants further investigation.

In the present case, the absence of essential economic data about borrower applications undercut the ability to develop strong statistical models of the two focal outcomes (denials and high-interest originations). The results, however, suggest the presence of tendencies in the mortgage market on Long Island that warrant further consideration and study.

Loan Denials

Fully completed and executed mortgage applications that resulted in the rejection of the application are denoted as "denials".[10] In 2011, there were a total of 21,870 applications filed on Long Island. 2,444 of those were excluded as being incomplete or withdrawn by the applicant. That left 19,267 completed applications that were acted upon. Of those, 16.6% (3,198 applications), were rejected by the lending institutions. The question then becomes, what factors affected the denial?

The binary logistic regression results are presented in Table 1.

Binary Regression of Denials in 2011						
	B	S.E.	Wald	df	Sig.	Exp(B)
Applicant Sex (Female v Male)	0.047	0.047	0.993	1	0.319	1.048
Applicant Income	0.001	0	9.744	1	0.002	1.001
Applicant Race/Ethnicity (overall)			72.969	3	0	
Non-Latino Black v non-Latino White	0.583	0.082	51.095	1	0	1.792
Latino v non-Latino White	0.439	0.072	37.39	1	0	1.55
Non-Latino Asian v non-Latino White	0.33	0.074	19.954	1	0	1.391
Loan-to-Income Ratio	0.358	0.021	300.968	1	0	1.43
Loan Amount	-0.001	0	13.725	1	0	0.999
Loan Type (Convent. V Governmtl)	-0.026	0.049	0.28	1	0.596	0.975
Community: % owner occupied	-0.077	0.064	1.425	1	0.233	0.926
Community: Median Income	0	0	7.022	1	0.008	1
Community: % Minority Population	0.006	0.001	23.911	1	0	1.006
Constant	-2.191	0.15	214.004	1	0	0.112

Table 1: Binary Regression of Denials in 2011

The regression model includes the applicant's sex, income, the loan amount, the loan-to-income ratio, and race/ethnicity, and whether the loan was conventional versus government-insured (FHA, VA) as individual level predictive factors. In addition, community level population size, minority representation, median income, and home ownership percent are included as predictors of denials. Overall, the model predicts about 8% of the variance in denials, but does not present a statistical "good fit" to the data. This indicates that the model does not include predictor variables with significant impact on mortgage denials (presumably the aforementioned credit score, debt-to-income ratio, and loan to value ratio).

The results for the analysis done for the 2012 HMDA data are fairly similar. For 2012, there were a total of 20,496 actions (17,123 acceptances and 3,373 denials). The racial composition of the applicant pool across the two years was essentially the same. The results for 2012 are shown in Table 2.

Binary Regression of Denials in 2012						
	B	S.E.	Wald	df	Sig.	Exp(B)
Applicant Sex (Female v Male	0.217	0.045	23.364	1	0	1.243
Applicant Income	0.001	0	18.314	1	0	1.001
Loan-to-Income Ratio	0.345	0.021	281.553	1	0	1.412
Applicant Race & Ethnicity (overall)			37.624	3	0	
Non-Latino Black v non-Latino White	0.438	0.081	29.371	1	0	1.55
Latino v non-Latino White	0.267	0.072	13.728	1	0	1.305
Non-Latino Asian v non-Latino White	0.249	0.07	12.535	1	0	1.283
Loan Amount	-0.001	0	34.183	1	0	0.999
Loan Type (Convent v Governmtl)	0.16	0.046	11.957	1	0.001	1.174
Community: % owner occupied	0.014	0.005	6.938	1	0.008	1.014
Community: % Minority Population	0.007	0.001	44.936	1	0	1.007
Community: Median Income	-0.002	0.001	5.059	1	0.024	0.998
Constant	-2.409	0.111	468.796	1	0	0.09

Table 2: Binary Regression of Denials in 2012

Notwithstanding the poor fit of the models, the results indicate that, as might be expected, the applicant's income, loan amount, and loan-to-income ratio are all significant predictors of loan denials in the anticipated directions. The applicant's sex is not significant as a predictor in 2011, but is in 2012. Overall, applicants with higher loan-to-income ratios are more likely (odds ratio = 1.4) to be denied than those with lower ratios. Controlling for the loan-to-income ratio, both income and loan amount have odds ratios close to 1, but they are statistically significant. Most telling, at the level of the applicant, controlling for applicant's financial circumstances, race/ethnicity are strong predictors of mortgage denials. . Blacks were 1.7 times more likely than non-Latino Whites to be denied mortgages in 2011 and 1.55 times more likely in 2012. Latinos were 1.55 times more likely in 2011 and 1.31 times more likely in 2012 more likely than non-Latino Whites to be denied. In other words, holding income, loan amount, and loan-to-income ratio constant, Blacks and Latinos are more likely to be denied loans than their non-Latino White counterparts. In general, one would expect that once the individual-level financial factors are taken into consideration, that race and ethnicity would *not* be related to patterns of mortgage denial. At face value, this is a troubling finding that demands attention. Unfortunately, it cannot be determined whether this result would still pertain if the model were properly specified with the inclusion of credit score, debt-to-income ratio, and loan-to-valuation ratio variables that are not presently contained in the HMDA data. This is an area that warrants further investigation.

At the community level (census designated places and villages), the proportional minority representation in the community is significantly related to denials. In 2011 and 2012, applicants for mortgages on properties in communities with higher proportions of people of color are more likely to be denied, when controlling for the individual-level characteristics of the applicants and other community characteristics. There was about a one percent increase in denials for each one percent increase in minority representation for both 2011 and 2012. This finding

raises a cause for concern. Holding other factors in the model constant, why should the racial/ethnic composition of the community have an impact on the acceptance or denial of a mortgage for a private residence? At first blush, this might suggest that lenders are implicitly or explicitly including community-level racial characteristics as factors that affect the granting of loans. At the same time, the absence of essential individual level factors such as credit ratings, debt-to-income ratios, and site-specific factors such as loan-to-value ratio in the regression models precludes drawing any firm conclusions. The latter factor may well play a role in lending decisions if appraisals show a significant decrease in valuation in the post-recession period in some communities more so than in others. Thus, it might well be the case that including the missing data in the analysis would eliminate the apparent impact of community racial composition. At this stage, this finding must be left as an important issue warranting further investigation, as well.

Other community level factors seem to have inconsistent impacts between 2011 and 2012. This could be the result of the poorly specified model, or simply differences between the patterns of denials across the two years. Thus, it is not possible to offer a clear assessment of the impact of community median income and the composition of the housing stock on denials. For both years, however, their inclusion represents important control variables for the analyses.

One final point concerns the distinction between conventional versus government sponsored mortgages (FHA, VA, farm and rural). In other sections of this report we have noted the evidence suggesting increased reliance on government support loans (FHA, VA) in communities with lower average incomes and greater proportions of residents of color. In the present analyses "loan type" was included as a binomial variable (conventional versus governmental). In 2011 the variable had a statistically non-significant effect. However, in 2012 its effect was statistically significant and suggested that applicants for governmental loans were 17 percent more likely to be denied. Is it possible that the retreat of subprime lenders and the tightening up of standards for both conventional and governmental loans in the post-recession years is leading to a dampening impact on minority and lower-income communities? Tightening up the standards for approving FHA and VA mortgages could well account for this finding for 2012. Unfortunately, the weakness of the data available for analysis precludes a definitive answer. At this juncture we can only indicate that this too is an area worthy of further exploration.

FHA Loans

As noted above, applying for an FHA loan is associated with a greater probability of being denied. That finding could be related to the tendency of private sector lenders to steer certain applicants away from conventional mortgages and toward FHA-backed instruments. If "riskier" applicants are directed in greater proportions to FHA mortgages, then there would be a greater probability of denials among FHA applicants. Another possibility is that factors other than economic risk, per se, prompt lenders to consider certain applicants as being less desirable for conventional mortgages. We explored these possibilities by applying the binary regression procedure to the 2012 HMDA data in order to identify those factors that are significantly related to the distinction between conventional and FHA mortgage applications (Table 3). The model explains about 24 percent of the variance in FHA vs. Conventional mortgage originations (i.e., about 24 percent of the pattern of difference between the two categories is associated with the significant predictors in the model), but overall, the model does not provide a "good fit" to the observed data. As in the prior analyses, this is probably related to the absence of key variables pertaining to applicant credit "worthiness" and loan-to-valuation (appraisal) of the property.

As might be expected, the loan amount and loan-to-income ratio are both positively related to applicants being granted FHA rather than conventional mortgages. Similarly, finding that applicant income is negatively associated with FHA loans is not a surprise (those with lower incomes are more likely to receive an FHA rather than conventional loan). On the other hand, applicant race is significantly related to FHA originations. In other words, both Black and Latino applicants are much more likely than non-Latino Whites to end up with an FHA as opposed to a conventional mortgage (even after controlling for income, loan amount, and loan-to-income ratio). Asian applicants are less likely than Whites to receive an FHA loan. Once again, the relevance of applicant's race and ethnicity after controlling for individual-level economic factors is worrisome, in the least. That concern extends to the relevance of community level racial and ethnic composition.

	B	S.E.	Wald	df	Sig.	Exp(B)
Applicant Sex (male v. female)	-.171	.045	14.680	1	.000	.843
Applicant Income	-.004	.001	31.157	1	.000	.996
Loan Amount	.000	.000	.387	1	.534	1.000
Loan-to-Income Ratio	.459	.035	176.069	1	.000	1.583
Applicant Race/Ethnicity (overall)			507.991	3	.000	
Non-Latino Black v Non-Latino White	1.301	.088	219.669	1	.000	3.674
Latino v Non-Latino White	.993	.070	203.510	1	.000	2.698
Non-Latino Asian v Non-Latino White	-.704	.079	79.476	1	.000	.494
Community: % Owner Occupied	-.003	.007	.210	1	.647	.997
Community: Median Income	.000	.000	15.974	1	.000	1.000
Community: % Minority Population	.013	.001	152.245	1	.000	1.013
Constant	-2.089	.139	224.290	1	.000	.124

Table 3: Binary Regression of FHA Mortgage Originations in 2012

The analyses presented in Table 3 indicate that, holding other factors constant, FHA loans are more likely to be originated for properties in communities with higher proportions of people of color. Each one percent increase in minority population is associated with a one percent increase in the likelihood of the loan being FHA insured, rather than a conventional mortgage. That pattern could reflect lenders being resistant to offering conventional mortgages as the relative presence of people of color increases within the community. As we will see below, the communities that had been most heavily serviced by sub-prime lenders have seen the sharpest decline in conventional mortgage activity in the past few years. The present analysis would be consistent with that pattern. Once again, however, we need to qualify any conclusions in this regard concerning FHA originations on the basis of the weakness of the statistical model. While the findings for key variables are significant in the analysis, the overall model is missing the essential data that we've mentioned above. Consequently, we present these findings as troublesome indications that warrant further investigation.

High-Interest Loans

Generally speaking, applicants with weak financial records who are not denied loans, may be offered mortgages at interest rates higher than those at standard market rates. Presumably, the higher interest rate compensates the lender for the greater risk associated with originating a loan for an applicant possessing a weaker financial record. Overall, the regression of high-interest loans on the predictor variables yields a good fit statistically to the observed data and explains about 5 percent of the variance in high-interest loans. As might be expected, the applicant's income is related to interest rate of the loan. Those with higher loan amounts are slightly less likely to be offered high-interest loans (odds ratio = .999). Importantly, holding income constant, Black applicants are more likely than non-Latino Whites to be offered high-interest loans (odds ratios of 1.91). Similarly, there is the indication that loans originated for properties in communities with higher percentages of minority residents and with lower ownership rates are more likely to be offered high-interest loans (odds ratios of 1.02 and .91, respectively). Here too we see a troubling suggestion of the relevance of race to the lending process. The picture changes, however, when we add FHA mortgage status as a variable.

	B	S.E.	Wald	df	Sig.	Exp(B)
Applicant Sex (male v. Female)	-.152	.183	.691	1	.406	.859
Applicant Income	.000	.000	.568	1	.451	1.000
Loan Amount	-.001	.001	2.976	1	.084	.999
Loan-to-Income Ratio	.086	.080	1.160	1	.281	1.090
Applicant Race/Ethnicity (overall)			7.002	3	.072	
Non-Latino Black v Non-Latino White	.646	.280	5.319	1	.021	1.907
Latino v Non-Latino White	-.019	.294	.004	1	.949	.982
Non-Latino Asian v Non-Latino White	.144	.288	.248	1	.618	1.154
Community: % Owner Occupied	-.103	.061	2.898	1	.089	.902
Community: % Minority Population	.019	.004	25.528	1	.000	1.019
Community: Median Income	.002	.003	.402	1	.526	1.002
Constant	-5.189	.446	135.165	1	.000	.006

Table 4: Regression of High-Interest Originations

As we can see in Table 5, the addition of FHA loans as a predictor changes the analysis somewhat. Overall, the regression of high-interest loans on the predictor variables yields a good fit statistically to the observed data and explains about 9% of the variance in high-interest loans. The majority of high-interest loans in 2012 were FHA mortgages. It is worth noting that the factors associated with individual applications (loan amount, applicant race [Black vs. Non-Latino White]) become statistically insignificant once the FHA factor is included in the equation. This finding suggests a process by which applications leading to high-interest originations tend to be channeled through FHA-backed instruments. In other words, those applications from non-Latino Black borrowers and those for lower loan amounts that are originated as high-interest loans tend to be in the form of

FHA rather than conventional mortgages. Moreover, there is the indication that loans originated for properties in communities with higher percentages of minority residents and with lower ownership rates are more likely to be offered high-interest loans (odds ratios of 1.02 and .90, respectively). The results do suggest an impact of community-level factors on the origination of such mortgages.

Factor	B	S.E.	Wald	Df	Sig.	Exp(B)
Applicant Sex (male v. female)	-.102	.183	.309	1	.579	.903
Applicant Income	.000	.000	.872	1	.350	1.000
Loan Amount	-.092	.093	.988	1	.320	.912
Loan-to-Income Ratio			5.859	3	.119	
Applicant Race/Ethnicity (overall)	.275	.282	.950	1	.330	1.316
Non-Latino Black v Non-Latino White	-.343	.298	1.326	1	.249	.709
Latino v Non-Latino White	.351	.290	1.464	1	.226	1.421
Non-Latino Asian v Non-Latino White	-.001	.001	1.747	1	.186	.999
Community: % Owner Occupied	-.107	.060	3.142	1	.076	.899
Community: Median Income	.000	.000	.107	1	.743	1.000
Community: % Minority Population	.016	.004	16.802	1	.000	1.016
FHA Loan	1.446	.195	55.023	1	.000	4.246
Constant	-4.565	.472	93.635	1	.000	.010

Table 5: Regression of High-Interest Originations, FHA variable included

In sum, this analysis conducted at the level of borrower applications points to those factors that tend to be associated with denials, FHA originations, and high-interest mortgages. As noted repeatedly throughout the analysis, the persistent presence of racial factors (e.g., applicant race or ethnicity, community racial or ethnic composition) is a troubling finding. Other things being equal, it should be expected that race/ethnicity would not be relevant once controlling for relevant financials at the applicant level and structural/financial characteristics at the community level. At this stage of the analysis, it cannot be determined why racial factors would be significant predictors of loan denials, FHA originations, and of high-interest loans after controlling for individual and community financial characteristics. The statistical models can only identify patterns of association. The possibility of direct racial discrimination cannot be ruled out. But neither can the possibility that the findings are the result of the differential impacts that result from the stricter standards put in place in the post-recession period or legitimate financially-based decision-making (thus, a form of structural or institutionalized discrimination). It is also unfortunate that the absence of key financial data (credit scores, debt-to-income ratio, loan-to-valuation ratio) has hampered our analysis, thus making it impossible to draw firm conclusions. Nonetheless, the continued relevance of race/ethnicity is indicative of the need for further study. Similarly, the fact that community-level factors such as minority representation, median household income, and homeownership rates, are significant predictors in the models is suggestive that lenders may be taking community-level factors into account in their evaluation of loan applications. Here too, however, the weakness of the models limits the strength of the conclusions that can be drawn. Such weaknesses notwithstanding, the analysis raises important questions about both the process and outcomes of current lending practices in the housing sector.

LENDING DISPARITIES AT THE PLACE LEVEL

The significance of neighborhood-level variables in the models of denials, FHA originations, and high-rate originations led us to investigate the disparities in lending across communities.

Mortgage lending does not occur evenly across Long Island. An analysis of the most recent HMDA data (2011-2012) shows that some places receive more mortgages per 1,000 owner-occupied dwellings than others. The magnitude of change also differs: in some communities the number of originated mortgages has dropped sharply from the height of the boom, while in others, originations have remained comparably steady. Both current lending and its change over time are important for understanding the trends in the regional mortgage market (Figures 7-9).
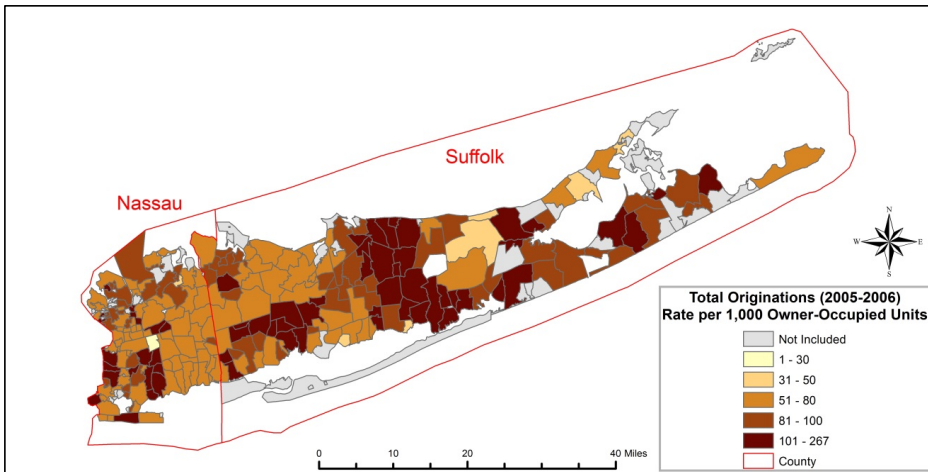

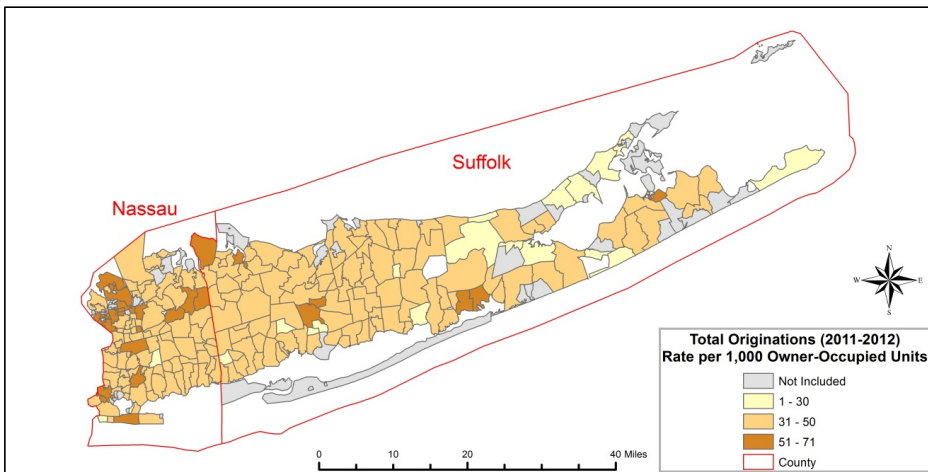**Figure 7. Total Originations per 1,000 Owner-Occupied Housing Units, 2005-2006**

Figure 8. Total Originations per 1,000 Owner-Occupied Housing Units, 2011-2012
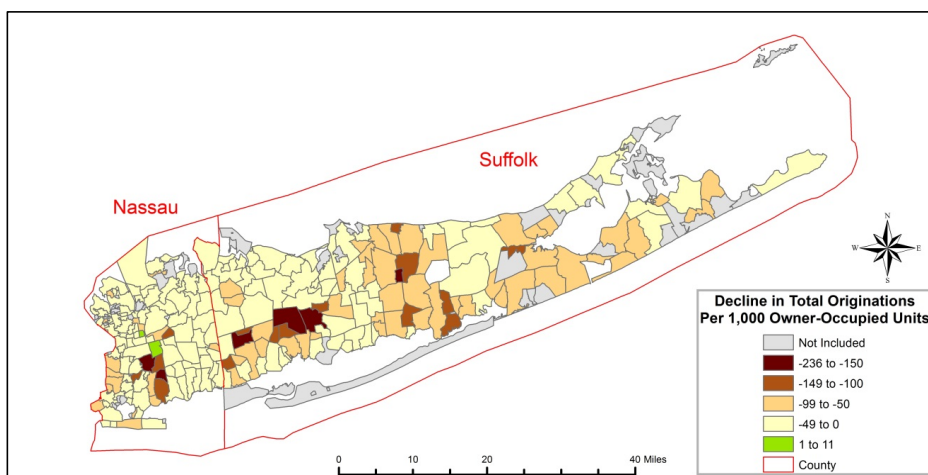
Figure 9. Decline in Total Originations per 1,000 Owner-Occupied Housing Units, 2005-2006 to 2011-2012

To examine disparities in total lending, we rank communities (Census places) with over 500 households by total originations per 1,000 owner-occupied homes in 2011-2012, and by the absolute change in this origination rate from 2005-2006 to 2011-2012. We label places that fall in the bottom quartile for both measures as the "bottom total lending cluster". These communities include many that experienced a wave of foreclosures during the housing bust. We also identify a "top total lending cluster," of places that fall in the top quartile for both measures (Figure 10).

Table 6 and Figure 11 below provide a summary of mortgage originations in the top and bottom total lending clusters. Total first-lien, home-purchase originations in the bottom cluster have fallen 78 percent from 2005-2006 to 2011-2012. In the top cluster, originations declined until 2010 before rebounding during the 2011-2012 period for a total drop of only 25 percent. The origination figures for 2011-2012 were 25 percent below the 2005-2006 levels. In 2005-2006, lending per 1,000 owner-occupied homes in the bottom cluster was more than double the figure for the top cluster: one mortgage was originated for every seven homes in this two year period. But the figure for the bottom cluster declined during the Great Recession, and by 2011-2012, lending was less than two-thirds that of the top cluster. (See Appendix for list of communities.)

Top Cluster		Bottom Cluster	
1	Brightwaters	25	Aquebogue
2	Cedarhurst	26	Brookhaven
3	East Hills	27	Flanders
4	East Meadow	28	Gordon Heights
5	East Williston	29	Inwood
6	Flower Hill	30	Island Park
7	Garden City	31	Lakeview
8	Garden City Park	32	Mastic
9	Great Neck Estates	33	Mastic Beach
10	Jericho	34	Middle Island
11	Lloyd Harbor	35	New Cassel
12	Manhasset	36	North Amityville
13	Munsey Park	37	North Bay Shore
14	Nissequogue	38	North Bellport
15	North New Hyde Park	39	North Sea
16	Oakdale	40	Remsenburg-Speonk
17	Old Westbury	41	Riverhead
18	Plainedge	42	Riverside
19	Rockville Centre	43	Roosevelt
20	Sands Point	44	Selden
21	Syosset	45	Shirley
22	Thomaston	46	Southampton
23	Williston Park	47	Springs
24	Woodmere	48	Uniondale
		49	Wheatley Heights
		50	Wyandanch

Figure 10. Total Origination Top and Bottom Clusters

	2010 Census		Total originations				Originations per 1,000 owner-occupied homes				
	Total population	Total owner-occupied homes	2005-2006	2007-2008	2009-2010	2011-2012	2005-2006	2007-2008	2009-2010	2011-2012	Change
Bottom cluster, total lending	274,279	57,845	8,427	3,533	2,373	1,844	145.68	61.07	41.02	31.88	-113.81
Top cluster, total lending	233,603	67,417	4,666	3,902	3,259	3,519	69.21	57.87	48.35	52.20	-17.01

Table 6. Demographic Profile of Top and Bottom Lending Cluster
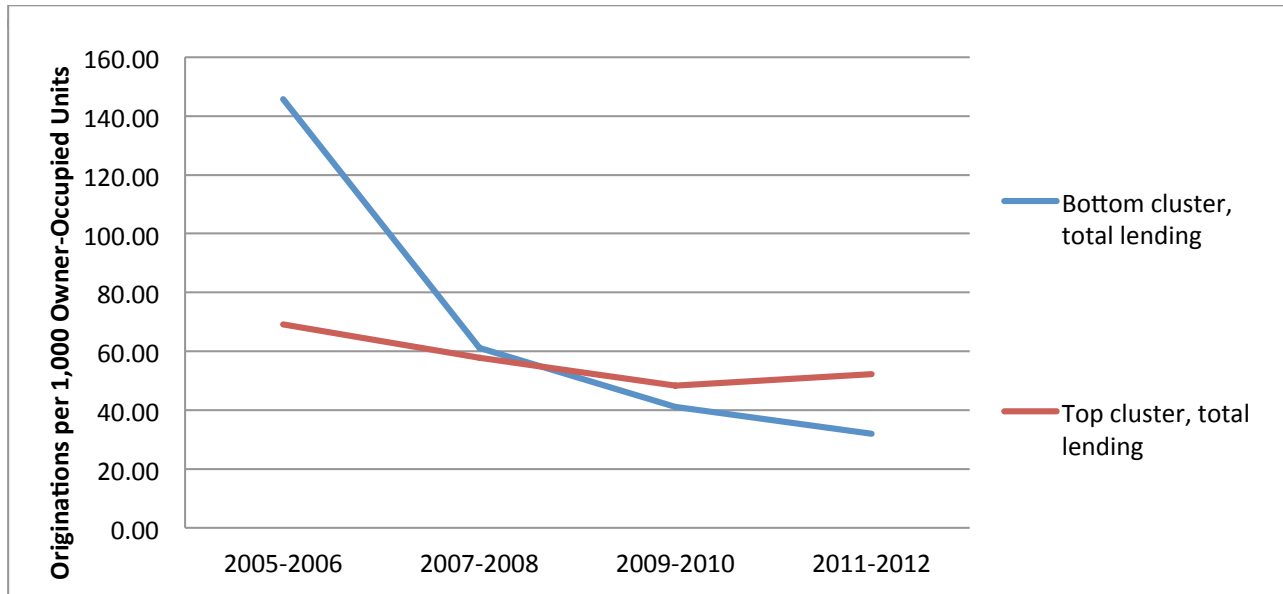
Figure 11. Mortgage Originations in Top and Bottom Clusters: 2005 – 2012

Demographic Profile of the Top and Bottom Clusters

The top and bottom cluster communities differ dramatically, both in their location and demography. Almost all top cluster communities are located in the northern half of the island, in a strip that runs from Great Neck to Syosset; bottom cluster communities are more scattered across the region, but include many areas on the South Shore.

Fifty-four percent of the population in the bottom cluster communities is either Black or Latino. Only 40 percent of the population is non-Latino White and 2 percent is non-Latino Asian. By contrast, 77 percent of the population in the top cluster is non-Latino White, 11 percent non-Latino Asian, 7 percent Latino, and 3 percent Black.

The two groups of communities have starkly different household income profiles. The top cluster's mean income of $160,228 was nearly double the corresponding figure for the bottom cluster ($84,733).
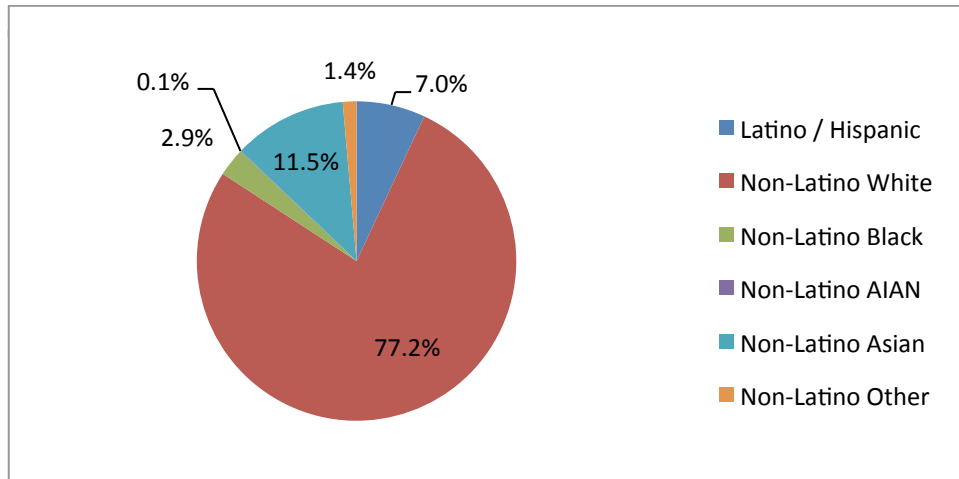
Figure 12. Racial/ethnic Composition (2010) in Top Cluster (total lending)
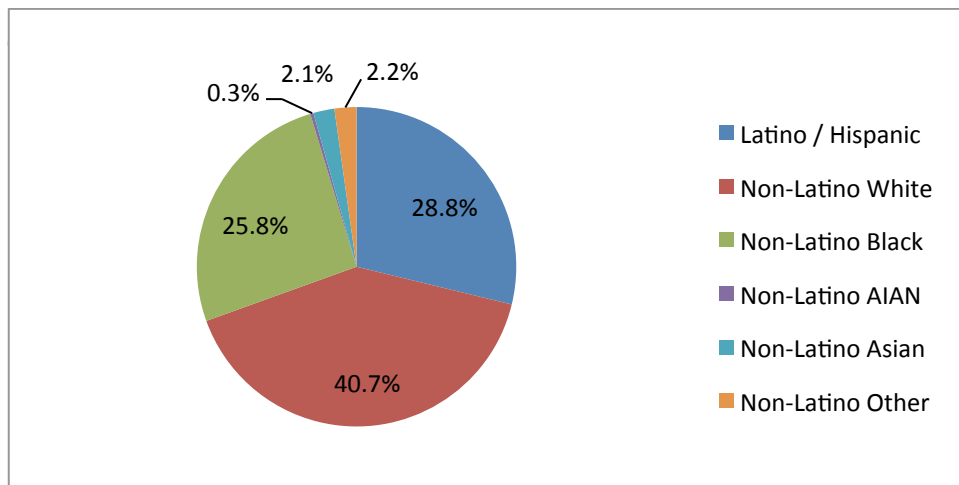
Figure 13. Racial/ethnic Composition (2010) in Bottom Cluster (total lending)

Conventional Lending and the Role of FHA

The previous analysis paints a useful portrait of total lending during the pre- and post- recession periods, but it obscures another important disparity, namely in conventional lending. Government insured lending – primarily FHA loans, and to a lesser extent, VA loans – accounts for a large share of mortgage financing. FHA insurance encourages lenders to make low down-payment loans that conform to federal underwriting standards; borrowers are required to pay up-front and monthly premiums. The FHA has raised its loan limit, and played a valuable role in preserving a low-down payment option for borrowers in an environment of tight credit.

FHA lending has been highly uneven, growing most quickly among borrowers of color, and within communities of color.[11] This pattern is also apparent on Long Island. While homeowners in some majority-white communities have become increasingly reliant on FHA and VA insurance, there is geographic variation in the percentage of mortgages that are FHA/VA-insured. In nearly every majority-Black/Latino community, on the other hand, FHA-insured loans account for more than half of originated mortgages (Figure 14).
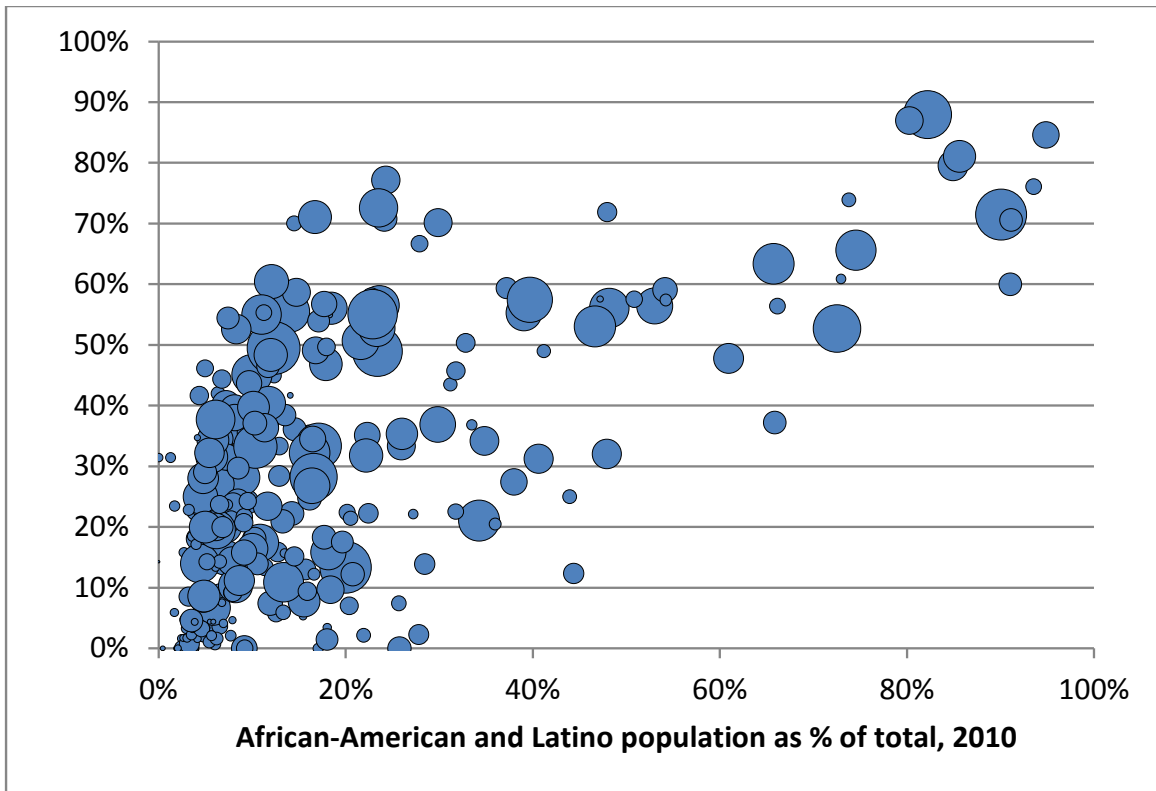
Figure 14. Community Demographic Composition and Government Insured Lending (dot size indicates population)

The patterns of FHA lending in 2011-2012 also closely follow patterns of subprime lending in 2005-2006. During the mid-2000s, FHA lending lost most of its market share, as subprime lenders stepped forward to provide dubious and often predatory products to the same groups and communities that had previously taken advantage of government-insured loans. During the 1990s, FHA loans accounted for about 15-20 percent of total loans, a figure that shrunk to less than 10 percent from 2004 and 2007. When the mortgage market collapsed in 2007, borrowers and lenders quickly turned to the FHA-insured mortgages, which accounted for over a third of new lending by 2009. This shift from, and then back towards, FHA lending was extreme among Black and Latino borrowers.

Similar evidence of a shift from subprime lending to FHA lending is apparent in Long Island's communities. There is a close correlation between the percentage of high-interest loans made in each community during the subprime boom and the percentage of recent originations that are FHA/VA insured.
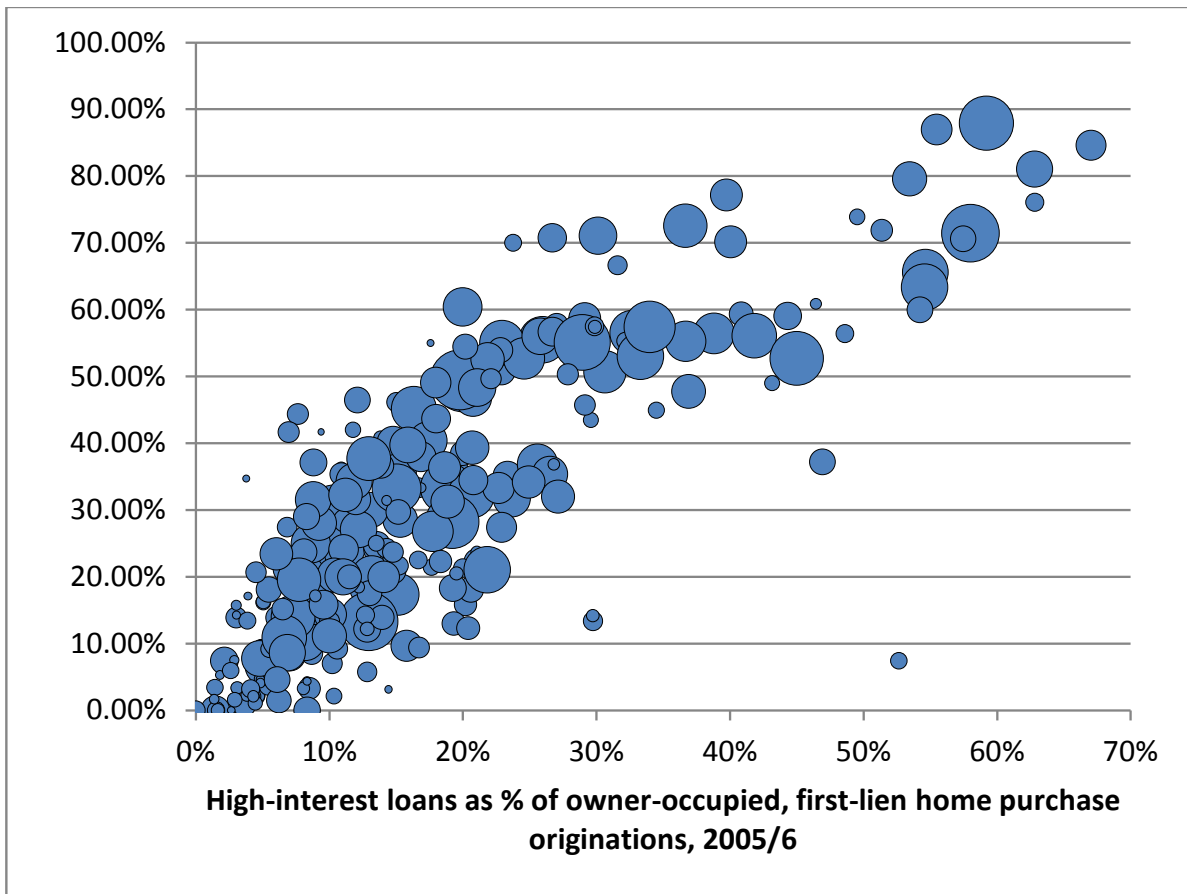
Figure 15. High-rate lending during 2005-2006 vs. FHA lending in 2011-2012

From one perspective, the charts above indicate FHA's typical role. It has given a countercyclical boost to the housing market during a protracted economic downturn. In particular, it has provided mortgage capital to Black- and Latino-majority borrowers and communities, one of its key missions since the 1960s. It has filled the niche once occupied by subprime lenders, and with default rates far lower than most subprime lenders.[12]

Yet, the uneven growth of FHA lending is troubling for two related reasons: first, because the loans are oftentimes more expensive than conventional loans; and second, because it may indicate an emergent pattern of institutionalized market segmentation and racial disparity.[13]

An FHA-insured mortgage is typically more expensive than a conventional one, and these added costs are increasing. Since the beginning of the recession, annual premiums have jumped 80 points (from 0.50% to 1.30% or 0.55% to 1.35%, depending on loan-to-value ratio), and premiums that were once canceled when loan-to-value ratio fell below 78% now extend for 11 years or the term of the loans.[14] These premium increases have helped keep FHA solvent during the recession, and some have proposed raising the premiums still further, both to ensure the agency will remain self-funding and to better price loans according to borrower risk.[15] But every increase makes mortgages more expensive for the borrowers and communities who rely heavily on government insurance, undermining the wealth-building function of homeownership.
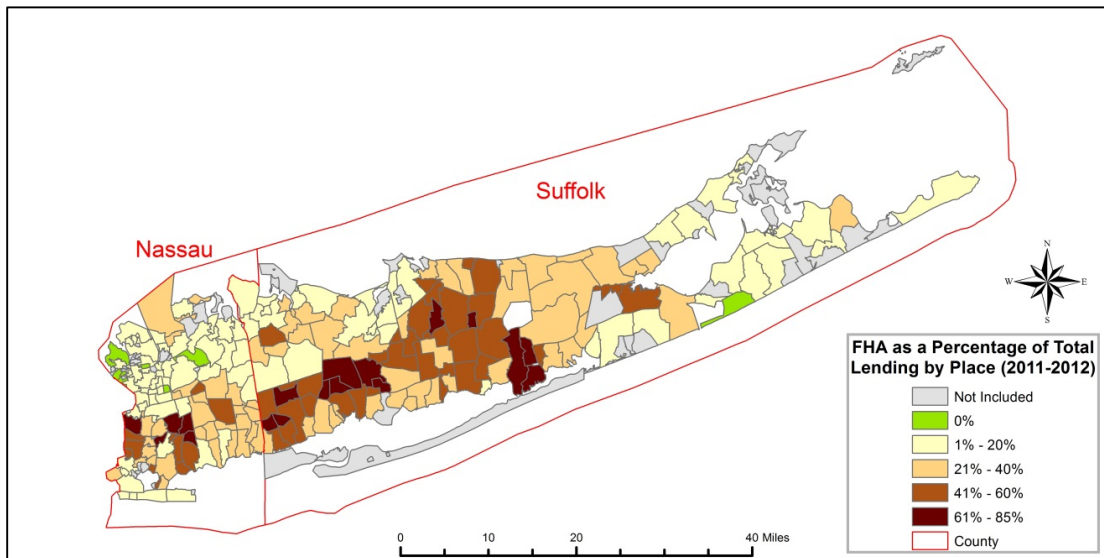
Figure 16. FHA lending as percentage of total lending by place, 2011-2012

The unevenness of FHA lending also suggests emerging dynamics that are familiar from the subprime crisis. Communities of color may be disproportionately served by lenders that specialize in a more expensive product. Alternately, realty agents may read borrowers' apparent race as an indication of poor credit history and steer them towards FHA loans in the hopes of faster qualification.[16]

The dependence of borrowers and communities of color on FHA-insured lending also leaves them vulnerable to politically-motivated policy shifts. In the past several years, there has been growing concern about the agency's financial stability, leading to tightened borrower requirements and the first-ever taxpayer-financed bailout of the agency in September 2013.[17] The current policy debate seems oriented towards narrowing FHA's scope and/or further raising premiums. Depending on the outcome of these discussions, the effects on FHA borrowers, communities of color, homeownership, and wealth building may be negative and significant.

The geographic disparity in conventional lending in the region is greater than that in total originations. We use the same cluster method as we did with total lending to identify top and bottom clusters based upon conventional lending in 2011-2012 and upon the absolute change in conventional lending from 2005-2006 to 2011-2012. Conventional originations in communities in the bottom of the market dropped a staggering 91 percent. The drop from 2005/06 to 2011/12 in the top cluster was only 34 percent.

These conventional clusters overlapped substantially with the total lending clusters, though there was some reordering. Several of the small-population communities that received the least total lending performed relatively well in terms of conventional loans. But strikingly, many large-population communities, where total lending had not fallen far enough to place them in the bottom total lending cluster, lost nearly all of their conventional financing. In other words, these communities are still receiving some reduced amount of mortgage capital, but it is mostly FHA or VA insured. One extreme example is Hempstead Village, where there were 1,415 originations during 2005-2006, and only 23 were government insured; compared to 231 mortgages, 165 of which were government insured in 2011-2012.[18]
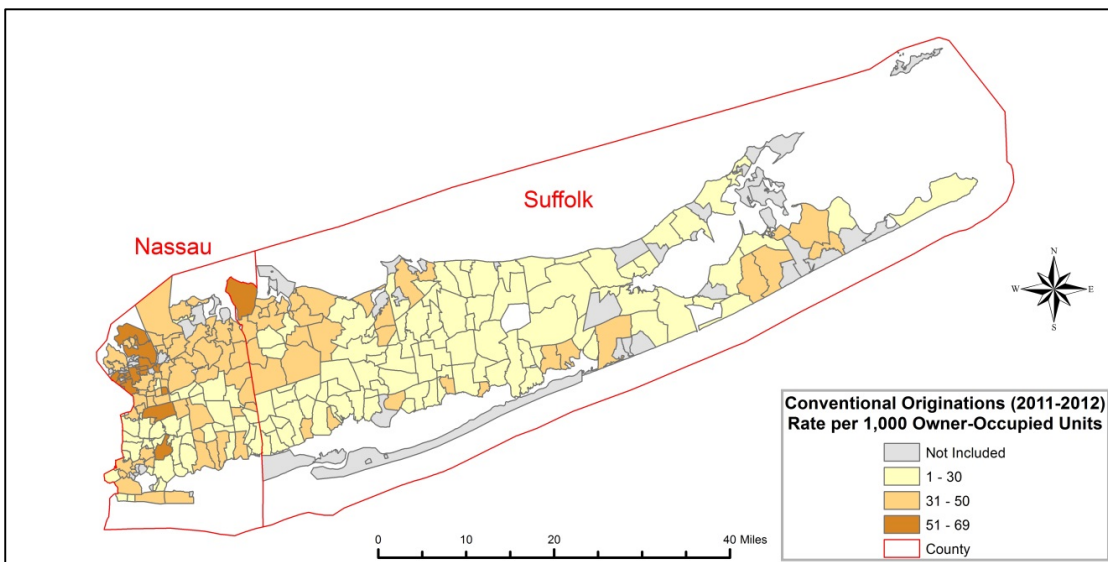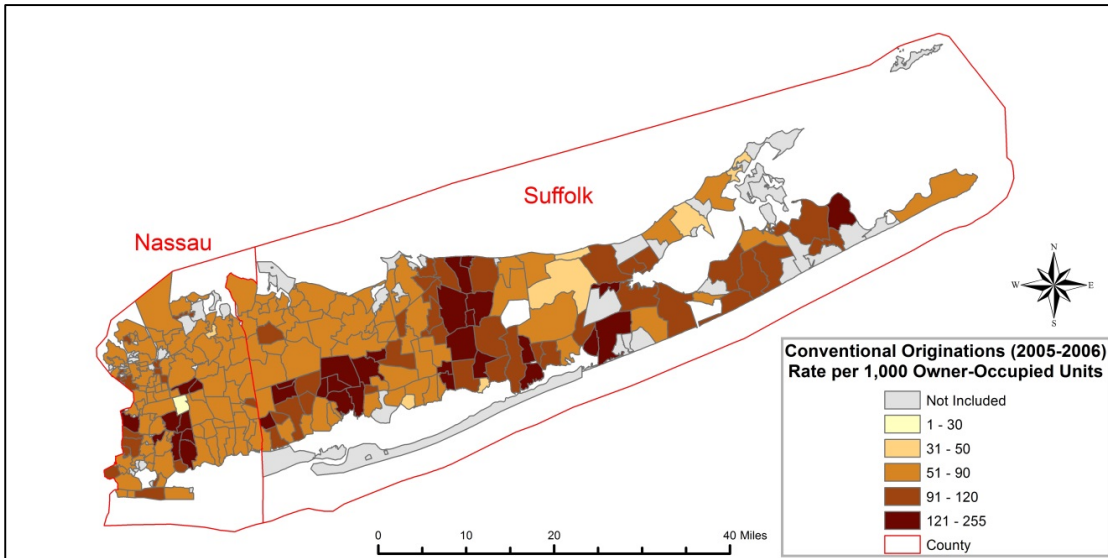
Figures 17 and 18. Conventional Originations per 1000 Owner Occupied Housing Units, 2005-2006 and 2011-2012, by Place
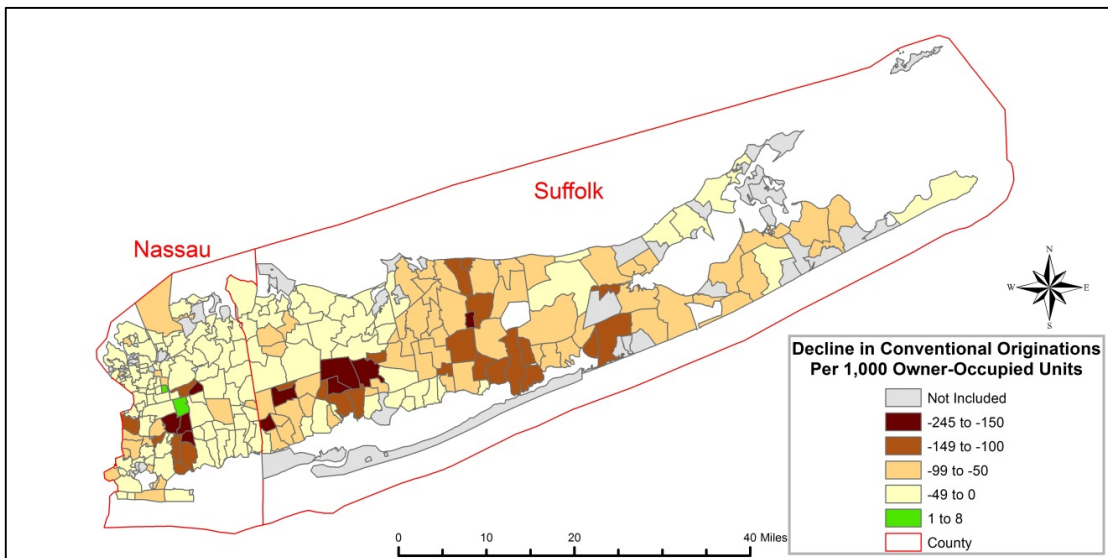
Figure 19. Conventional Lending per 1,000 Owner-Occupied Housing Units, 2005-2006 to 2011-2012
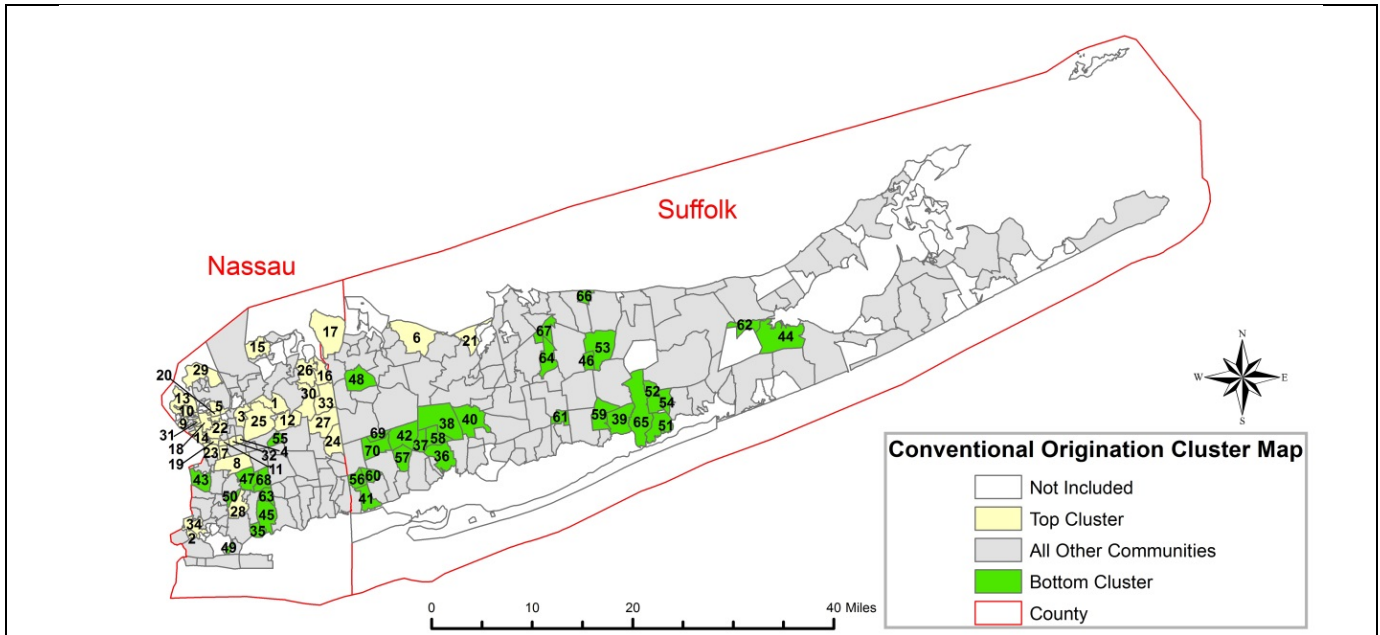
Top Cluster		Bottom Cluster	
1	Brookville	35	Baldwin Harbor
2	Cedarhurst	36	Bay Shore
3	East Hills	37	Baywood
4	East Williston	38	Brentwood
5	Flower Hill	39	Brookhaven
6	Fort Salonga	40	Central Islip
7	Garden City Park	41	Copiague
8	Garden City	42	Deer Park
9	Great Neck Estates	43	Elmont
10	Great Neck	44	Flanders
11	Herricks	45	Freeport
12	Jericho	46	Gordon Heights
13	Kings Point	47	Hempstead
14	Lake Success	48	Huntington Station
15	Lattingtown	49	Island Park
16	Laurel Hollow	50	Lakeview
17	Lloyd Harbor	51	Mastic Beach
18	Manhasset	52	Mastic
19	Manhasset Hills	53	Middle Island
20	Munsey Park	54	Moriches
21	Nissequogue	55	New Cassel
22	North Hills	56	North Amityville
23	North New Hyde Park	57	North Babylon
24	Old Bethpage	58	North Bay Shore
25	Old Westbury	59	North Bellport
26	Oyster Bay Cove	60	North Lindenhurst
27	Plainview	61	North Patchogue
28	Rockville Centre	62	Riverside
29	Sands Point	63	Roosevelt
30	Syosset	64	Selden
31	Thomaston	65	Shirley
32	Williston Park	66	Sound Beach
33	Woodbury	67	Terryville
34	Woodmere	68	Uniondale
		69	Wheatley Heights
		70	Wyandanch

Figure 20. Top and Bottom Clusters, Conventional Lending
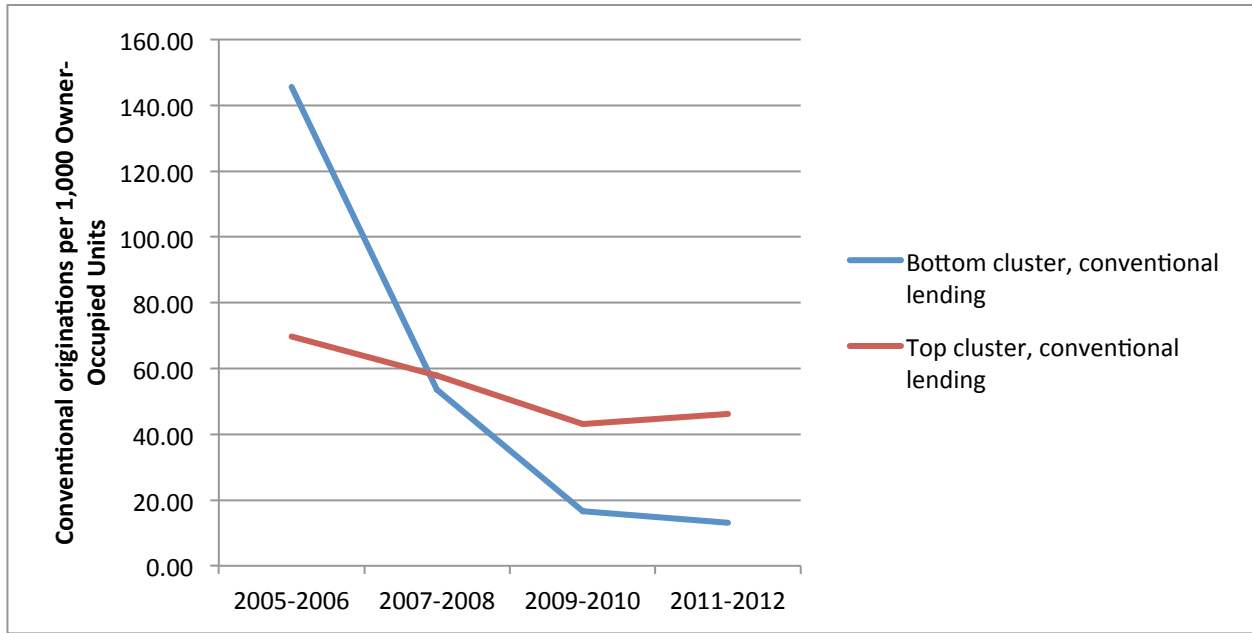
Figure 21. Conventional Mortgage Originations in Top and Bottom Clusters: 2005 – 2012

	Total population	Total owner-occupied homes	Conventional originations				Originations per 1,000 owner-occupied homes				
Bottom cluster, conventional lending	641,274	131,567	19,162	7,052	2,181	1,717	145.65	53.60	16.57	13.05	-132.59
Top cluster, conventional lending	266,475	77,414	5,403	4,474	3,337	3,575	69.80	57.80	43.11	46.18	-23.62

Table 7. Demographic profile, bottom and top conventional lending profile

The racial, ethnic, and income differences between communities with the strongest and weakest incidence of conventional lending were stark. Over one third of residents in the bottom cluster were Latino, and nearly one in four are Black. Twenty-three percent of Long Island's residents live in this large bottom cluster, but those residents include 63 percent of the region's Black population and 50 percent of its Latino population. The mean income of the lower cluster was roughly the same as the lower total lending cluster, but the upper group's mean income was $177,041, 10 percent higher than the total lending figure.
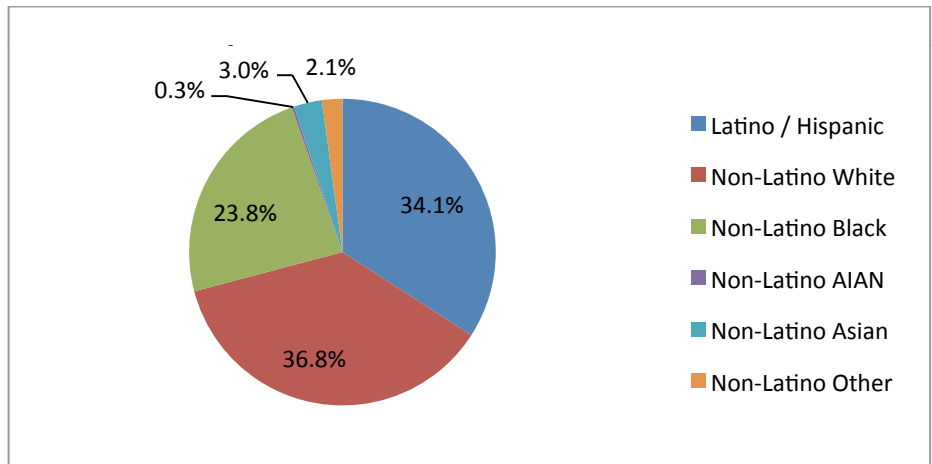
Figure 22. Racial and Ethnic Composition in Conventional Lending Bottom Cluster
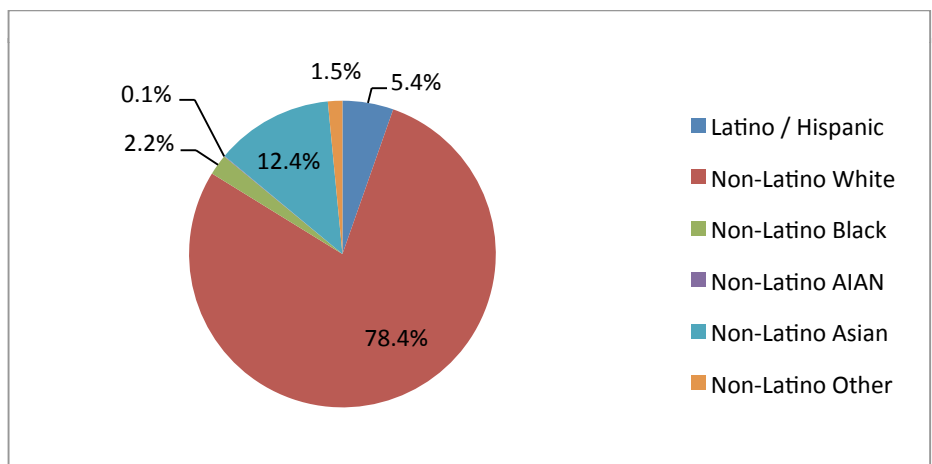
Figure 23. Racial and Ethnic Composition in Conventional Lending Top Cluster

LENDING TO THE TOP AND BOTTOM CLUSTERS BY INSTITUTION

Place-level origination rates also vary considerably by lending institution. We focus here on those that fell within the top five lenders, ranked by purchase loans originated by the institution (or its parent), for at least one year between 2005 and 2012: Bank of America, Bethpage Federal Credit Union, Citibank, Continental, Countrywide, IndyMac, JP Morgan Chase, Lasalle, Washington Mutual, and Wells Fargo.[19] Together, they account for about 42 percent of the mortgages made in the bottom total lending cluster (though a majority of those made between 2007-2010) and 57 percent of the loans in the top cluster. Their practices thus have a significant impact on lending in the region.

These ten large lenders can be divided into three groups, based on their scale and changes in their lending over time. The first group is composed of three banks – Citibank, JP Morgan Chase, and Wells Fargo – that originated loans to the bottom cluster at a lower rate than the top cluster throughout the study period. All three banks were involved in high-interest lending (partly through their subsidiaries), but it never amounted to much more than 10% of their originations. Nevertheless, the gap between the top and bottom cluster widened from 2005-2006 onward. In 2011-2012, each of these banks made mortgages to homebuyers in the top cluster more than twice as often as homebuyers in the bottom cluster.

The gap in conventional lending widened even more significantly for these banks as FHA became a more significant share of their lending to the bottom cluster. By 2011-2012, Wells Fargo made conventional loans to the top cluster five and a half times as often, JP Morgan Chase five times as often, and Citibank three and a half times as often.
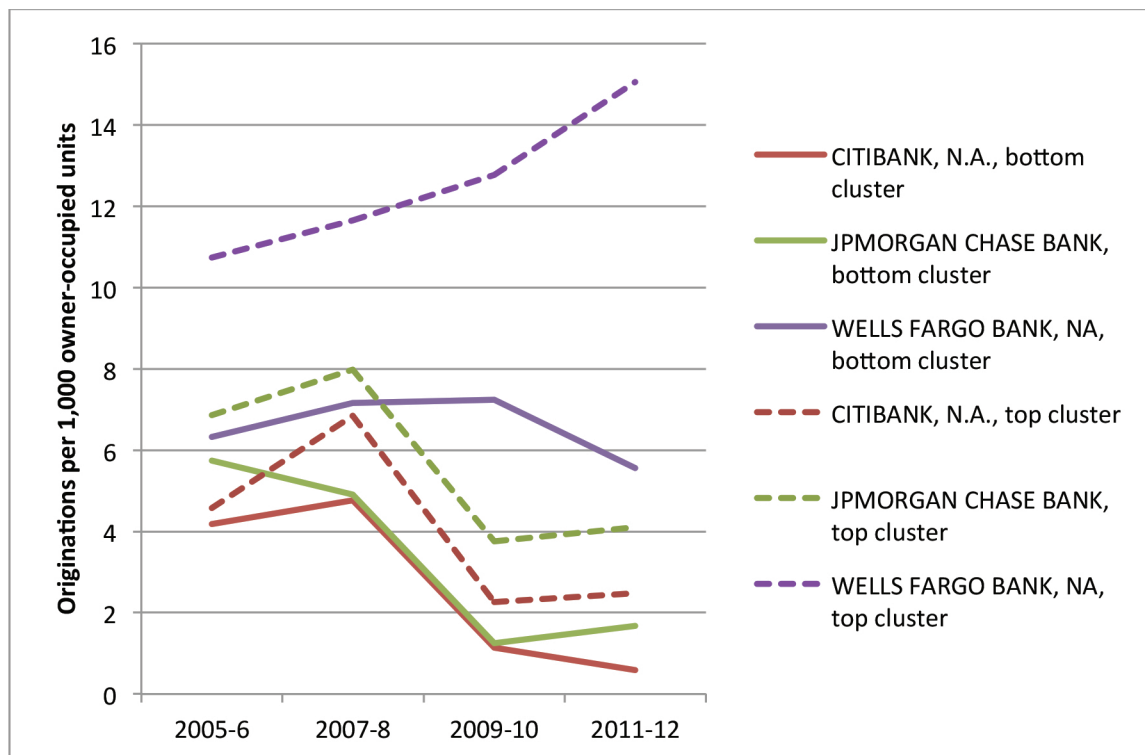
Figure 24. Citibank, Wells Fargo, and Chase Total Originations per 1000 units, 2005-2012
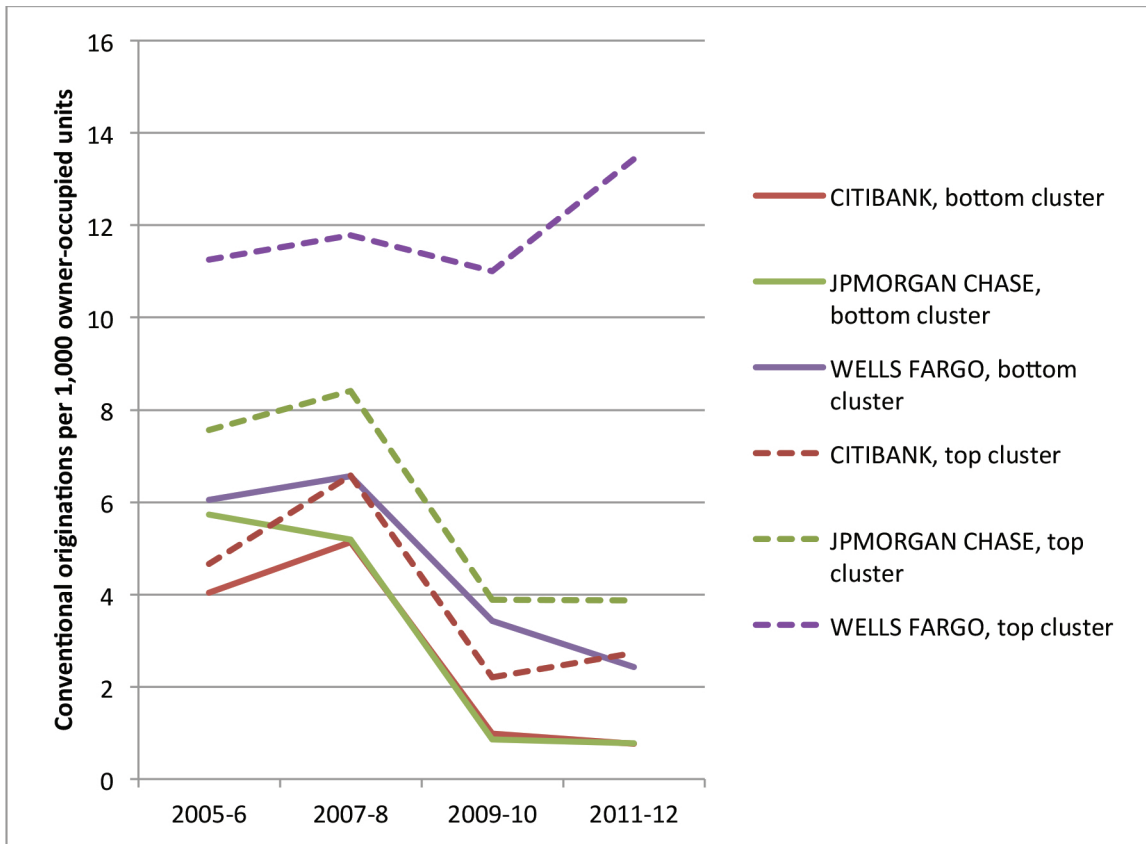
Figure 25. Citibank, Wells Fargo, and Chase Conventional Originations per 1000 units, 2005-2012

For a second group of lenders – Bank of America and Bethpage Federal Credit Union – the relative importance of the clusters has changed over time. Both lenders made more loans to the bottom cluster than the top during 2005-2006, and very few of these loans were high-interest. The vast bulk were non-high-interest, conventional loans. Bethpage maintained a stable rate of lending in the bottom cluster, although originations to the top rose during the study period. Bank of America's lending to the top cluster rose above its lending to the bottom cluster, though the gap remained narrow relative to the rest of the top ten.

Conventional lending to the bottom cluster similarly began at slightly higher levels, though Bank of America's conventional lending to the bottom cluster dropped so sharply that by 2011-2012 a four-to-one gap had opened up, commensurate with the rest of the middle, <50% FHA group. Bethpage was unique in increasing its conventional lending to the bottom cluster communities, although loans to the top cluster increased more rapidly to a level more than twice that of the bottom.
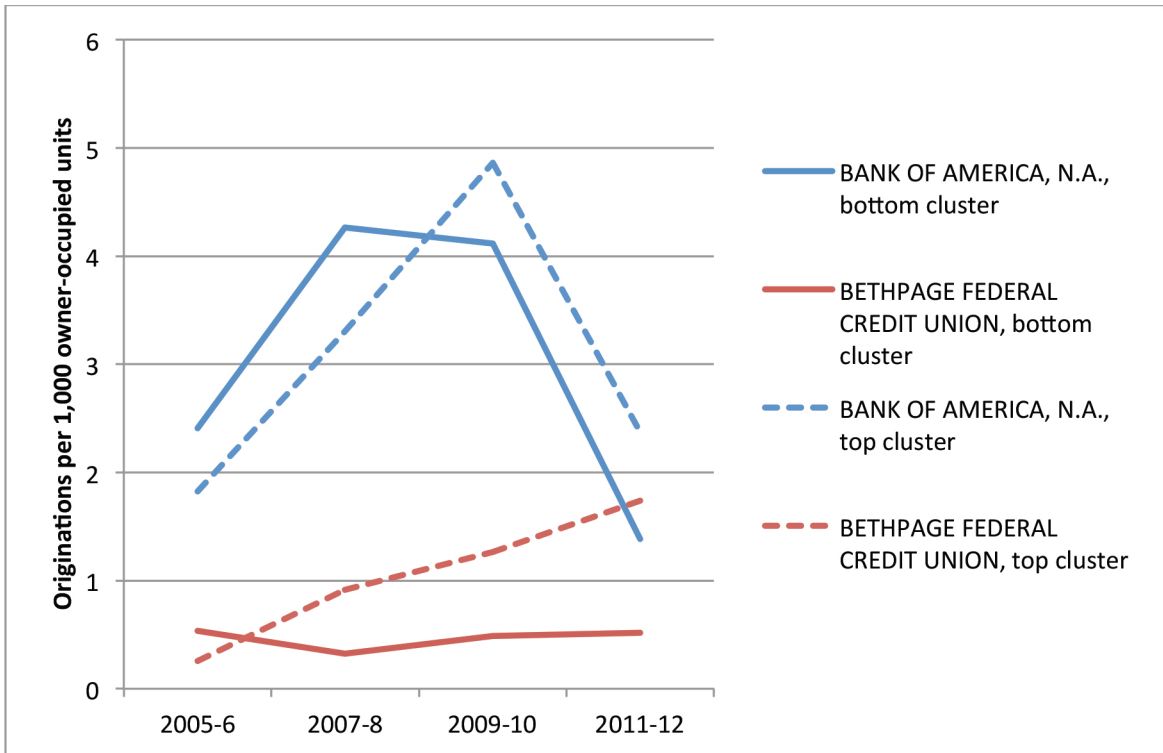
Figure 26. Bank of America and Bethpage FCU Total Originations per 1000 units, 2005-2012
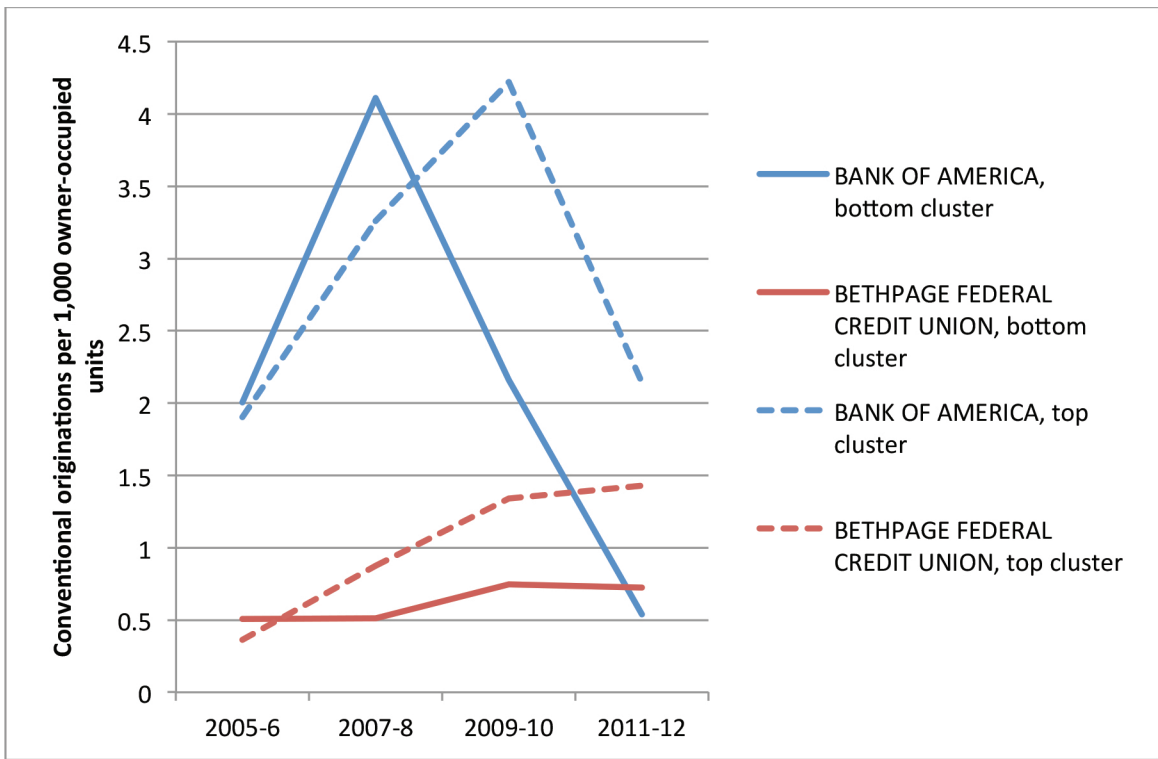
Figure 27. Bank of America and Bethpage FCU Convent. Originations per 1000 units, 2005-2012

The third and final group includes four institutions that were significantly involved in the subprime/high-interest mortgage market – Countrywide, IndyMac, LaSalle, and Washington Mutual – and one company (Continental) which emerged as the leading regional FHA lender during the recession. With the exception of LaSalle, all of these companies made loans to a greater proportion of bottom-cluster homeowners than to the top. As the bubble burst, the four subprime-involved lenders that dominated the market – together with companies like Argent, Fremont, Greenpoint, and New Century, which fell just short of our cut-off – fell into a steep decline, usually ending in bankruptcy and/or acquisition by a surviving bank.

The decline of the eight largest regional subprime lenders accounts for 43 percent of the drop in lending between 2005-2006 and 2009-2010. Interestingly, the same subprime lenders were responsible for 73 percent of the top cluster's decreasing originations during the same period. Although subprime lenders were less involved in the top cluster generally, the decline in top-cluster originations was smaller overall, and the large banks retreated from lending in the bottom cluster more than they did from the top.

Conventional lending trends resemble the trends in total lending. In the case of the four subprime lenders, this is not surprising: few of their loans received government insurance, and they were going out of business as the FHA market share skyrocketed. Continental Home Loans was the only top lender in the majority-FHA lender group in 2011-2012. Its conventional lending to the top cluster grew during the recession, eventually exceeding the bottom-cluster rate, which slipped slightly (though remaining second only to Wells Fargo).
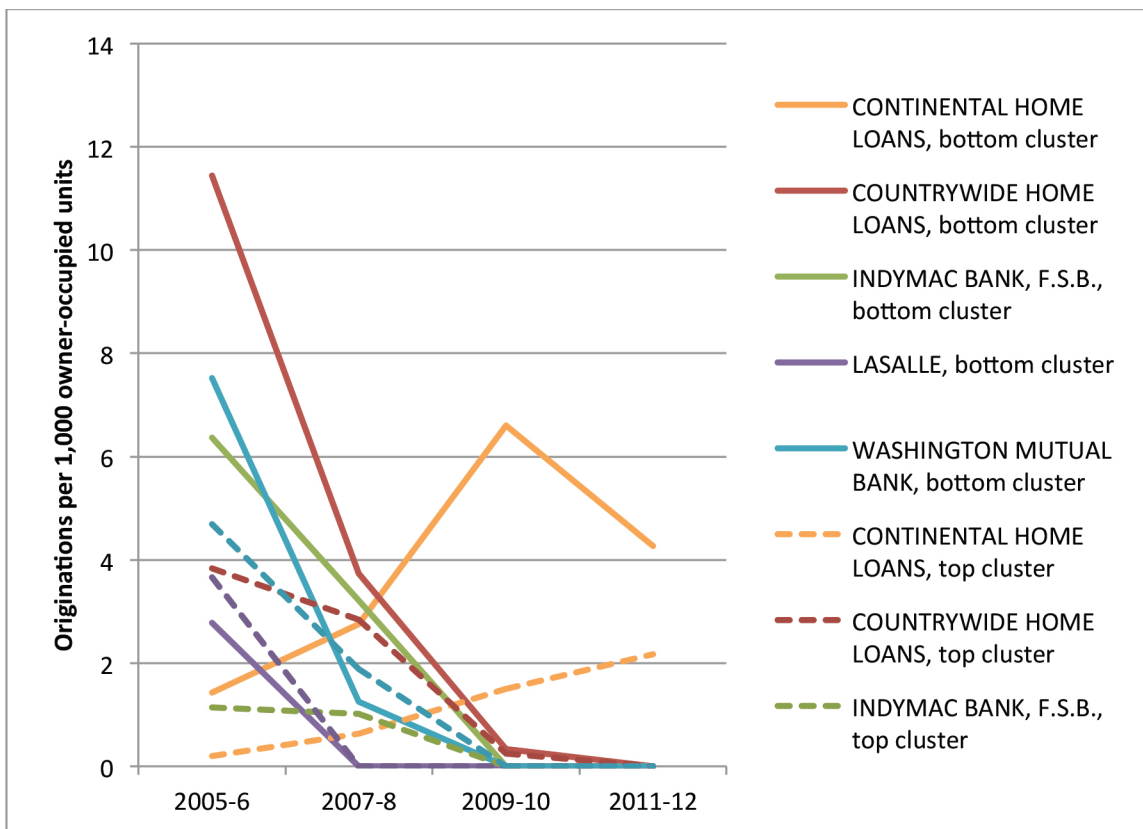
Figure 28. Continental and Subprime Total Originations per 1000 units, 2005-2012

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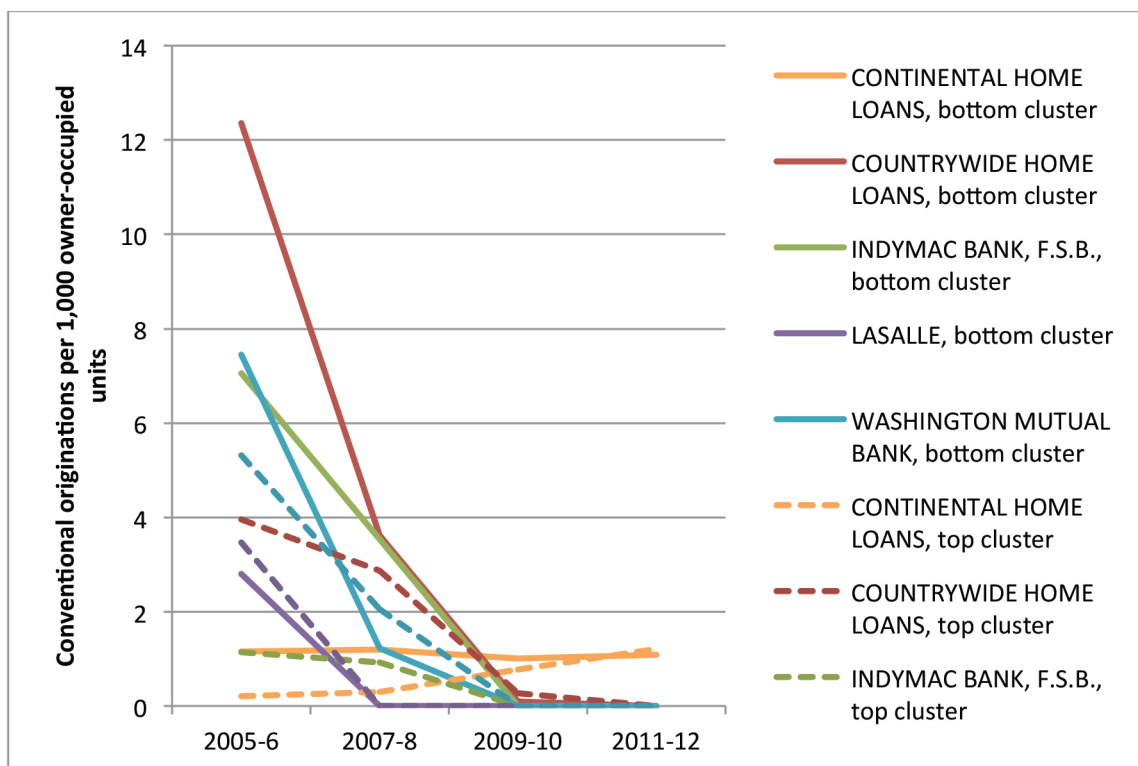
Figure 29. Continental and Subprime Originations per 1000 units, 2005-2012

WHAT DRIVES LENDING DISPARITIES ON LONG ISLAND?

Our analysis indicates that racial disparities in lending exist at the individual and neighborhood levels on Long Island. It is difficult, though, to isolate the factors that cause these disparities. As we already have discussed, HMDA provides us with limited information, omitting important variables like credit score, debt-to-income ratio, and loan-to-value ratio and down payment. Without this information, it is difficult to tell whether loan decisions are based upon the characteristics of the individual borrower, their experience of discriminatory treatment, or the policies and structural conditions that produce racial inequality without discriminatory intent (policies with disparate impacts, in the broadest sense).

Rapid shifts in the lending environment have also made it more difficult to interpret quantitative data and place it within a policy context. Twenty years ago, most research on lending disparities sought to establish whether (and where) discrimination in mortgage underwriting existed. Debate swirled around the now-classic 1996 Boston Federal Reserve study, which drew upon detailed loan-level data to pinpoint likely discriminatory practices.[20] But with the mushrooming of subprime lenders, the price of credit quickly became a much greater concern than mere access to credit. Fair lending advocates struggled to adjust to this radically different environment, and in words of geographer Kathe Newman, "began to question whether their neighborhoods [had] increased access to capital or capital [had] increased access to them."[21] A flurry of research revealed that people of color – and specifically Black/African-American and Latino/Hispanic borrowers – had received a disproportionate share of high-rate loans when compared to non-Latino whites.[22]

With the crash of the housing market, the debate shifted again. Credit and underwriting swung from extremely loose to extremely tight, with 20 percent down payments typical of non-government-insured loans. New regulatory requirements – most notably those mandated by the Dodd-Frank financial reform legislation – were instituted to protect the financial system and homeowners, though these requirements have arguably further reduced the number of borrowers. The national debate today is thus centered on how access can be maximized while minimizing systemic risk.[23] When regulators recently considered tightening down payment requirements, a coalition of fair lending advocates and bankers successfully lobbied Congress against further tightening. We found that the same concern about tight underwriting cut across our interviews with counselors, realty agents, and lenders.

These new alliances do not mean that discrimination has ceased to exist. Recent cases brought by the New York Attorney General's office, for example, suggest that discriminatory practices may persist even in a supposedly "post-racial" America. Nor does it mean that even lenders who lament the tightness of the credit market and new regulatory structure would provide fair credit if these strictures were removed.

But the recent history and current policy environment does make it more difficult to discern discrimination. Officer- and lender-level discrimination is wrapped in onion-like layers of bank underwriting practices, regulatory policy, and post-recession neighborhood- and household-level inequality that may produce and reproduce racial inequality without individual discriminatory intent. This should be familiar to many as nearly the definition of structural racism: sets of "race-blind" practices and conditions that perpetuate racial inequality in the absence of affirmative, proactive policies and actions aimed at reducing disparities. Often, structural racism operates through income and wealth inequality, and recent history suggests that the mortgage market is no exception.

We argue that these factors may be even more significant than discrimination in an environment where housing policy is searching for a new equilibrium. Nearly every interviewee that we spoke with told us that the major players in the mortgage field on Long Island are accommodating themselves to what is becoming the "new normal". Given the dismal trajectory of Black and Latino household wealth and homeownership rates during the last seven years, we find this development alarming.

A range of structural and policy factors figure prominently among those that we believe may be driving disparities in lending on Long Island. Our list is not exhaustive. Rather, these are the factors that were suggested by the data, by interviews, or both, ordered from the systemic to individual level.

National-level factors

1. **General tightening of credit**

Across the economy, the "credit box" that allows borrowers to qualify for loans has shrunk. Although overall mortgage volume increased from its low point of 2008, lending standards remain restrictive. Lenders are hesitant to extend credit, having suffered losses servicing delinquent loans, foreclosure, and write-downs. As of mid-2013, the average credit scores for both conventional and Ginnie Mae loans were 50 points higher than their levels in the early 2000s.[24] Since credit scores are lower on average among racial/ethnic minority and lower-income buyers – along with net worth, financial assets, and income – this tightening has a more pronounced effect on these groups.[25]

Secondary market conditions and policies set by Government Sponsored Enterprises (GSEs) have placed additional pressure on lenders. Investor demand for mortgage-backed securities remains relatively weak, and it is unclear whether recent regulatory decisions will finally cajole private capital to re-enter the market. New private-label securitization largely disappeared after the subprime crisis, leaving the secondary market largely in the hands of the GSEs. But GSE policies have become more restrictive since the crisis. The GSEs and FHA pursued lenders who had misrepresented their loans during the subprime boom – rightfully, in our view – but this policy has raised perceived "put-back" risk and further restricted credit. Again, it remains to be seen whether recent regulatory loosening will translate into better credit access.

2. **Unintended consequences of financial reform**

The Dodd-Frank financial reform legislation created the Consumer Financial Protection Bureau and introduced a number of new regulations to prevent predatory lending. Among these new rules were expanded requirements for disclosure and documentation for lenders and appraisers. Yet, according to those we interviewed, many of the new requirements have discouraged applicants from applying for loans and lenders from approving them. At times, it was hard to tell where the regulatory requirements ended and lenders' own reticence began.

Increased requirements for documentation were instituted to block the no-documentation loans that proliferated at the height of the boom. According to one loan officer, though, this policy deters undocumented immigrants who have steady incomes but cannot provide pay stubs. Even for documented immigrants, documentation of assets can present a problem. One realty agent described how West Indian buyers frequently rely upon money deposited in informal savings clubs (susus), but noted that these accounts are no longer counted towards financial reserves or a potential down payment. These problems may suppress home lending and worsen racial disparities in areas with high percentages of immigrants of color.

New disclosure rules require lenders to provide more detailed "good-faith estimates" of closing costs, and penalize them if those estimates are understated. As a result, banks deliberately provide high-end closing cost estimates (far above the 6% rate typical for the region), which according to counselors has discouraged their clients from purchasing. More generally, counselors and lenders alike report that the extensive paperwork and documentation now required to secure a loan deters some eligible borrowers.

Appraisers' increased exposure to liability has much the same effect, but in the opposite direction. During the height of the subprime boom, appraisers sometimes worked hand in hand with realty agents and lenders to inflate home values. Appraisers have become the targets of professional liability lawsuits, and financial reform has required that they base their valuations on a narrower set of comparables. This has led to low-end estimates that sometimes fall below the contract price and prevent financing. Some interviewees from all three groups – realty agents, counselors, and lenders – reported sales that had fallen through due to low appraisals, although there was disagreement about whether the problem had eased in the last two years. High concentrations of short sales and foreclosures further suppressed valuations.

None of these reforms are bad policy, insofar as they guard against the abuses that were prevalent during the mid-2000s. But when combined with the general retraction of credit in the post-recession period, these reforms appear to have reduced mortgage access for otherwise creditworthy applicants.

3. **Lingering effects of the subprime crisis in high-foreclosure neighborhoods**

Apart from low valuations, the concentration of foreclosures and short sales in many of Long Island's communities of color has reduced owner-occupant purchases in at least three ways. First and most obviously, where foreclosures remain common and visible, they have negative effects upon the appearance and perceived quality of the neighborhoods that surround them. Several counselors and realty agents told us that this affects buyer interest in the hardest-hit neighborhoods.

Second, despite a slight price recovery, many of those who bought homes in these areas during the peak of the boom remain underwater. According to Zillow's negative equity data for the second quarter of 2014, 12 percent of New York homeowners owed more on their home than it was worth. The corresponding figures for Nassau and Suffolk counties were 11 and 17 percent, respectively.[26] But again, the differences between top and bottom cluster communities are stark. In many top-cluster communities, less than 5 percent of homes are underwater. In the bottom cluster communities that experienced high rates of foreclosure – Brentwood, Central Islip, Hempstead Village, the Mastics, Roosevelt, Shirley, Uniondale, and Wyandanch – more than 35 percent of homes were underwater. These communities fell within the top 5 percent of communities with the greatest share of underwater homeowners *nationally*. In a recent report entitled *Underwater America*, the authors point out that across the country, these underwater communities are largely majority Black and/or Latino.[27]
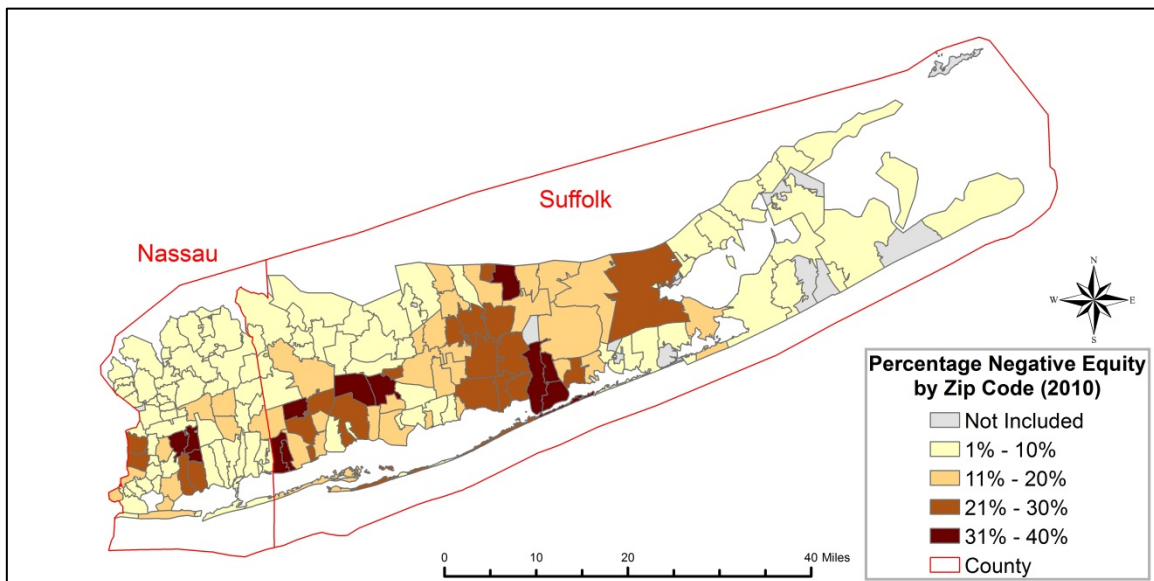
Figure 30. Negative Equity, Second Quarter 2014, by ZIP Code

Underwater homeowners are more likely to enter foreclosure, but negative equity also acts as a general drag on local economies and housing markets.[28] As Zillow researchers have noted, the underwater figures actually understate the problem. The transaction costs of selling a home (realty agent commission, etc.), may prevent even homeowners with a small amount of equity from making a move. This can also dampen local market activity.

When houses do come onto the market in the bottom-cluster communities, many are either short sales or real estate owned properties (REOs). When these homes sell, local realty agents we interviewed told us that they

are often bought by investors. At the national level, large investors have played an increasing role, although our interviews suggest that small investors continue to dominate on Long Island.[29] In some respects, investors are propping up local markets (or at least the low end of those markets). But they are also crowding out first-home time homebuyers, out-competing them with all-cash offers. This denies critical opportunities to rebuild wealth in communities where millions of dollars of wealth were lost in the crisis. Investor activity has also likely suppressed the homeownership rate. All-cash purchases that do not require a mortgage do not appear in HMDA, and may account for a significant portion of the disparities we observe.

4. **Past housing discrimination and current patterns of segregation**

The uneven landscape of short sales and foreclosures corresponds closely to the patterns of subprime lending in the mid-2000s. Where lenders made large numbers of high-rate loans, as reported by HMDA, foreclosures became widespread. Nationally and on Long Island, Black and Latino borrowers received high-rate loans at significantly higher rates than whites.

In some cases, communities were targeted for predatory lending on the basis of race. This was particularly clear in predominantly Latino communities, where non-English-fluent first-generation immigrants were defrauded by unethical practices and exotic products that would have mystified many native speakers.[30]

The legacies of historical mortgage discrimination made a much broader group of communities vulnerable, as well. Many of these communities had been redlined for decades, preventing Black and Latino householders – often including middle- and upper-income borrowers – from attaining homeownership. The Community Reinvestment Act, passed in 1977, instituted a new federally-mandated duty to serve for depository institutions, but it was enforced weakly until the early 1990s. Starved of mortgage capital, Black and Latino communities had homeownership rates lower than white communities with similar median incomes. As a result, they were positioned as appealing "new markets" for subprime and predatory lending. Past discrimination thus contributed to racial disparities, even when subprime and predatory lenders did not target these communities based upon their racial composition.

Residential segregation also contributes to the development of dual markets. Majority Black and Latino communities, along with communities with high proportions of immigrants more generally, are often underserved by large institutions, and instead rely upon separate networks of realty agents, banks, and financial services. In the mid-2000s, many brokers and mortgage companies operating in minority communities specialized in subprime products, while large depository institutions offered more prime loans in wealthy and white communities. This dual market was capable of producing very different outcomes, even when individual lenders did not discriminate between borrowers on the basis of race or ethnicity. This is because segmentation affects the information and choices available to borrowers, in addition to increasing vulnerability to predatory and discriminatory practices. As a result, middle-income, prime Black and Latino borrowers often received high-interest subprime loans when they could have qualified for a more affordable product.

Research has shown that segregation indices were positively related to foreclosure rates in the largest 100 metropolitan areas of the U.S. in 2006.[31] Long Island's high levels of residential segregation provided the opportunity for similar segmentation within the region. HMDA analysis reveals that high-rate lending and high-rate lender activity were pervasive in bottom cluster places.

5. **Dual markets and the FHA**

The dual market is also apparent today, but in a different form. Most of the major subprime residential lenders have disappeared. But as described above, homebuyers in bottom-cluster communities that once relied on subprime loans now rely heavily on FHA instead, while those in the top cluster rely on them at much lower rates. FHA's growth, in other words, explains why the decline in conventional lending and the resulting place-level disparities are even starker than those for total lending.

Lenders vary considerably in whether FHA loans account for most, some, of none of their business. Here, we divide all institutions reporting to HMDA into three groups: those that originated more than half, less than half, and none of their loans with FHA insurance. The first, majority-FHA-insured group lent more than three times as often in the bottom cluster than in the top, while the third, the non-FHA-insured group, lent to the top cluster almost four times as often as the bottom. Lenders in the middle group also make about four times as many conventional loans to the top cluster as to the bottom, but mix their lending with FHA-insured loans – which are made to the bottom cluster four times as often as to the top.
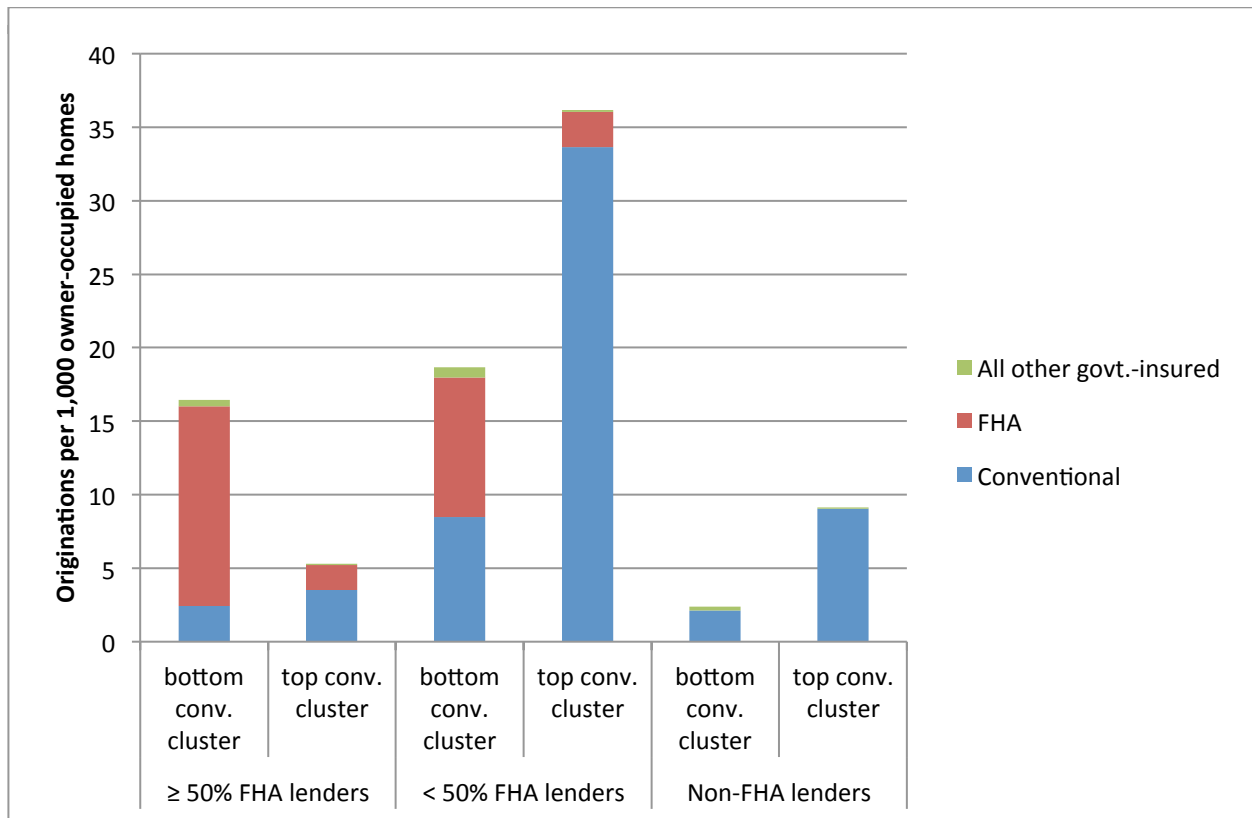
Figure 31. Conventional and FHA originations per 1,000 homes, 2011-2012, by cluster and lender type

This rough analysis suggests that Long Island has largely transitioned to a new dual market: FHA loans in the bottom cluster of majority-minority communities, and non-government-insured loans for the top cluster.

As mentioned above, a series of policy changes have made FHA loans more expensive, most notably an early 2013 policy change that premiums would continue even after a mortgage's loan-to-value ratio dropped below 78%. Partly as a result, rates of FHA lending have fallen since 2012, the last year of our data. But when we interviewed realty agents who worked in the bottom cluster, they reported that nearly all of their clients still rely upon FHA insurance. As might be expected, realty agents encouraged (or at least expected) buyers to use FHA loans because they offered low down payment options, and many buyers are unable to gather 20 percent for a down payment, plus closing costs. Interestingly, the counselors we interviewed told us that they believe that in light of recent policy changes, FHA seems like a bad deal for their homebuyers. Although counselors are careful to be neutral and present clients with several financing scenarios, their clients often balk at the high cost of FHA over the term of the loan, and many opt to use either more affordable SONYMA products, or postpone home purchase to save for a down payment.

Lender-level factors

6. **Variation in underwriting practices and products**

All lenders are constrained by changes in the policy and financial parameters established at the national and global levels. Yet, when we examined lending practices across different institutions on Long Island, we saw that lending to top- and bottom-cluster communities was highly uneven. The differences can likely be explained by some combination of institutional history, underwriting practices, products offered, and adherence to fair housing principles.

In the years leading up to the housing collapse and Great Recession, local lenders adopted a range of lending strategies with respect to both where they focused their activities and what products they promoted. During the crisis years, lenders confronted the consequences of their risky investment strategies in the form of write-downs and government penalties. However, the scale and timing of these losses and penalties varied among the major lenders on Long Island. Their responses to the crisis and consequent costs and penalties also varied. As we have seen, some lenders have shifted the areas in which they operate and the types of products they offer. Some have tightened credit more than others. The experience of remediation, for example, may have made some lenders more risk-averse in their underwriting than others.

Although many of these decisions are made at the firm level, some lenders we interviewed also told us that regional and branch officials still do exert some autonomy within underwriting process, and can take steps to broaden credit access. They may sustain relationships with potential borrowers, working with them over time to discover routes to homeownership in the medium or long term. They may consider compensating factors that allow borrowers with shorter job histories or fewer assets to qualify for a mortgage. They may accept more risk (i.e., of government audit or put-back) when selling these loans to the GSEs. However challenging the lending environment, we should not understate the role of those who staff Long Island's banks, credit unions, and mortgage companies, for their decisions do affect lending patterns.

They also play a role in determining the type of loans that are made more broadly. In the aftermath of the crisis, many lenders turned from home purchase loans and towards refinancing. Given the climate, this was a natural shift. Mortgage rates were at historic lows which generated borrower demand among those homeowners who had weathered the recession without serious damage to their earnings or credit ratings. Those who still retained a favorable loan-to-value ratio were in a good position to refinance their existing mortgages at lower rates. But there has been some concern that the growth of refinancing activity has "crowded out" purchase lending, and reduced the pressure on lenders to loosen credit for first-time homebuyers.

This development clearly has racial and class dimensions: the financially-stable borrowers who were in the best position to further build wealth through refinancing were disproportionately white or Asian and affluent. The chart below shows the biennial change in refinance originations on Long Island. After the onset of the recession in late 2007, refinancing activity dropped precipitously. But beginning in 2009, Asian and white borrowers successfully took advantage of low interest rates to refinance their loans. Refinancing to Black and Latino borrowers, however, continued to fall. This trend persisted: on Long Island, over 25,000 non-Latino white borrowers refinanced their mortgages in 2012, compared to merely 845 non-Latino Black borrowers.
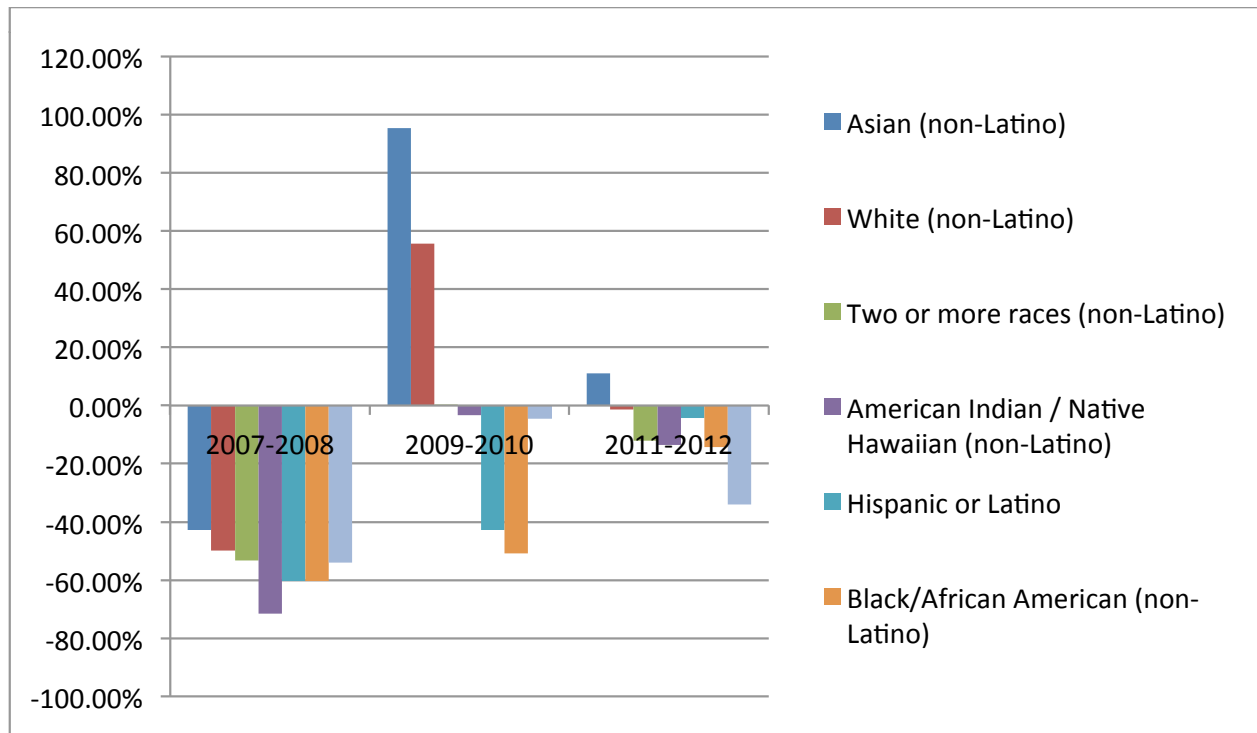
Figure 32. Change in Refinance Originations, 2005-2012

On the other hand, there are new opportunities for low-income borrowers. Non-profit counselors reported to us in our interviews that, although lenders have not loosened their underwriting criteria in the last two years, some have offered new proprietary loans that allow for a smaller down payment and are then held in portfolio. While these programs appear to be only a small fraction of total lending, they nevertheless provide additional access to capital for first-time homebuyers. Along the same lines, some lenders offer small programs for low-income homebuyers that match up to a few thousand dollars of savings, provided the customer applies to the same institution for a mortgage. While these programs do less to help borrowers with only 5 percent or 10 percent for a down payment, they may help those who are closer to 20 percent, or who need extra resources to cover closing costs.

7. **Unfair lending practices**

The disparities we observe may result directly from lenders' decisions to discriminate against borrowers of color or to redline entire neighborhoods. Since discrimination and redlining are illegal, it is obviously difficult to collect data on either. Lenders do not concede discrimination where it exists, and victims may be unaware that they have experienced discrimination, since they cannot observe interactions with other clients. Fair housing agencies commonly audit or test for discrimination in sales and rental by sending volunteers of different races and ethnicities to realty agents' offices, and then seeing which properties they are shown. Because the two applicants must otherwise have the same characteristics (e.g., income), some of the information provided by each applicant is usually false. But for mortgage applications, submission of information that does not genuinely depict actual applicant circumstances constitutes a felony offense, which makes it harder to audit or conduct paired-testing for mortgage discrimination. The best scholarly work on discrimination and redlining analyzes private datasets with in-depth information on each loan, allowing researchers to account for a wide range of other possible factors that might explain racial disparities. Differences that cannot be explained indicate discriminatory activity.[32]

In preparing this study, we lacked the detailed loan-level data that is required to establish definitively the existence or prevalence of discrimination. But the denial model presented earlier in this report does take us a step beyond conventional analyses that simply quantify lending by race. Even after we held sex, applicant income, loan amount, and income-to-loan ratio constant, we still found that both Black and Latino applicants and the properties in communities with higher percentage of Black and Latino residents were more likely to be denied a mortgage and more likely to receive an FHA or high-rate mortgage.. Given the long history of discrimination in housing generally and on Long Island, and the role of redlining in residential financing, these albeit preliminary findings could well reflect the effects of discriminatory practices leading up to the housing crisis and collapse and during the post-recession years.

The recent case brought by the New York State Attorney General's office against Evans Bank indicates discrimination's persistence. In the suit, the AG office alleges that Evans Bank produced maps that excluded much of Eastern Buffalo – an area with a predominantly Black population – from its trade area, suggesting a classic case of redlining. As important as pursuing and publicizing these cases are, discrimination and redlining may be harder to prosecute against large lenders. Their familiarity with fair lending laws may incline them towards adopting race-neutral underwriting policies that produce racial disparities, *i.e.*, following the letter of fair lending but not its spirit. Enforcement of fair lending laws is critical, as is attention to both disparate treatment and disparate impact.

Lenders' duty to serve must extend beyond equal treatment and modest CRA targets to include affirmative marketing. Loan counselors reported during our interviews that local lenders differed significantly in how much outreach they conduct in low-income communities on Long Island. One lender described a concerted effort to develop relationships with realty agents which led to market growth in low-income communities. Another emphasized the need for a shared and explicit commitment to serving communities of color, and a sustained engagement with individual borrowers, as essential to effective fair lending activities. Affirmative steps such as these are encouraging and critically important for redressing current disparities in the region.

Individual-level factors

8. **Household financial stress, shifting preferences, and greater literacy**

Finally, some of the disparities we observe can be attributed to the household-level and neighborhood-level shocks from the recession itself. A period of prolonged unemployment may have interrupted the continuous job histories that are now necessary to secure financing. The recovery, at least in the early stages of 2009-2011, produced many jobs that were temporary or probationary, which likely prevented workers from seeking mortgages, or cautious lenders from making them.

Many borrowers are also disqualified by default or debt load. During the recession, job loss and other trigger events produced foreclosures and consumer debt defaults that have kept borrowers from obtaining new mortgages. Even among those who have avoided delinquency, the well-publicized growth of college debt and the more recent emergence of a subprime market for auto loans has made it difficult to stay within debt-to-income limits.

There are also signs that the housing crisis has changed attitudes and consumer preferences. As foreclosures have spread across the U.S. and down payment requirements have risen, homeownership has become less desirable, precisely at the moment that it has become less accessible for low-wealth households. Counselors and realty agents report that homeowners in bottom-cluster communities are more leery of the home purchase process than they used to be. They appear more inclined to "dip their toe" into the market, and then postpone their search. New requirements for documentation, as discussed earlier, also dissuade some buyers.

As a consequence, however, an increased reticence to take on the risk and up-front costs of ownership on the part of potential first-time homebuyers may place greater pressures on the rental market. This could have a double consequence. First, the cost of renting may well rise with greater demand. That will tend to work against the efforts of those attempting to save enough to meet the tightened down payment requirements for mortgages. Even if builders respond to that demand by shifting their focus to rental housing (and there are some signs that is beginning to occur), it tends to occur at the high end of the market. Second, if a general shift of this nature does occur, it will mean that those current homeowners presently underwater, or precariously holding on will not be able to expect any realistic relief from their circumstances for the foreseeable future.

Some counselors, realty agents, and lenders we interviewed pointed out that this new vigilance is a positive development. Wary and educated consumers are better equipped to avoid predatory lending and unaffordable loans, which could in turn prevent future speculative manias in the property market. Yet, we must remember that housing has historically been the main store of wealth for lower- and middle-income families in the United States. This is one of the reasons that the struggle for fair lending was so important. It is important that minority borrowers understand their options and risks, but we should not confuse knowing the options with having them. And our findings indicate that for a number of reasons, communities of color on Long Island are losing the opportunity to buy a home.

RECOMMENDATIONS

If this diminished access is housing's new status quo, it risks further expanding the racial and ethnic wealth gaps that have widened during the Great Recession.[33] Foreclosure's ill effects extend beyond its immediate economic damage to borrower wealth and local housing markets. They include the disruptive effects of involuntary displacement, damaged credit, increased residential turnover, the deterioration of vacant housing, diminished property values, and reduced tax receipts – all of which may have potentially profound implications for households and communities.

These long-term consequences of the collapse of the housing market and recession could exacerbate patterns of racial inequality, even if lenders were making their best efforts to provide credit across the region. But as we report, we have found disturbing signs that fair access to credit is not being provided to all of Long Island's racial and ethnic groups, and all of its neighborhoods. It is true that simultaneous pressures towards both tight and loose credit are whipsawing the sector's major players. Nevertheless, it is incumbent upon them to develop strategies that will deliver a fair quality and volume of lending to all of the region's borrowers. We hope that our report can provide a starting point for this much-needed public conversation about the future of lending practices on Long Island.

While our findings are not conclusive, they strongly suggest that the factors listed in the previous section play a role in mortgage market inequality on Long Island. There are corresponding actions that local stakeholders can take to ensure equal credit access on Long Island:

At the federal level:
- ➢ Local lenders, counselors, and fair lending groups should partner to advocate for federal policies that balance the need for affordability, consumer protection, and credit access. This includes strengthening the enforcement of the Community Reinvestment Act and broadening its coverage to include credit unions and non-depository institutions.

- ➢ The same partnership should support the expansion of HMDA data collection to enable more comprehensive analyses and improve our understanding of racial disparities by providing public comment that supports the unrestricted public disclosure of data collected under the new Regulation C.

- ➢ State and federal agencies should continue to partner with regional non-profit groups to enforce fair lending law, and increase funding for the Fair Housing Initiatives Program.

At the regional level:
- ➢ Lenders should forgive principal in areas with a high concentration of underwater mortgages. Where this process is obstructed by high concentrations of private-label-securitized loans, local governments should consider using eminent domain to accomplish principal reduction.

- ➢ In areas with high percentages of foreclosed properties, local and county governments should work with lenders to ensure that first-time homebuyers and non-profit groups have first-look opportunities for foreclosed / real estate owned properties.

At the institutional level:
- ➢ Lenders should expand proprietary programs and loan programs that support first-time home purchasers.

- ➢ Mortgage officers should use what discretion they do have to increase access in bottom-cluster communities, especially by expanding their affirmative marketing efforts.

At the individual level:
- ➢ Because there is evidence that counseling significantly reduces the risk of borrower default, funding for prerequisite first-time homebuyer counseling should be expanded. Counseling agencies should work in tandem with a local fair housing advocacy and enforcement agency to monitor possible fair housing violations.

APPENDIX

	Total originations					Rate per 1000						Conventional originations				Rate per 1000					
	2005-2006	2007-2008	2009-2010	2011-2012	Total owner-occ. units, 2010	2005-2006	2007-2008	2009-2010	2011-2012	05/06-11/12 change	Low total lend.	2005-2006	2007-2008	2009-2010	2011-2012	2005-2006	2007-2008	2009-2010	2011-2012	05/06-11/12 change	Low conv. Lend
Brookhaven CDP	109	53	36	25	933	117.01	56.54	39.07	26.81	-90.20	Yes	107	46	18	14	114.97	49.68	19.33	14.76	-100.21	Yes
Flanders CDP	89	33	18	22	916	97.71	36.52	19.65	23.64	-74.07	Yes	88	31	10	9	96.59	33.72	11.23	10.04	-86.54	Yes
Gordon Heights CDP	208	59	37	23	807	257.74	73.11	45.85	28.50	-229.24	Yes	202	48	10	6	250.31	59.48	12.39	7.43	-242.87	Yes
Island Park village	95	58	50	20	954	99.58	60.80	52.41	20.96	-78.62	Yes	95	50	24	7	99.58	52.41	25.16	7.34	-92.24	Yes
Lakeview CDP	191	78	88	46	1,310	145.80	59.54	67.18	35.11	-110.69	Yes	189	68	14	11	144.27	51.91	10.69	8.40	-135.88	Yes
Mastic Beach CDP	496	194	151	113	3,208	154.74	60.50	46.91	35.29	-119.45	Yes	476	155	46	26	148.23	48.43	14.46	8.06	-140.17	Yes
Mastic CDP	491	231	166	116	3,629	135.43	63.75	45.86	32.02	-103.41	Yes	459	183	51	35	126.49	50.43	13.96	9.56	-116.94	Yes
Middle Island CDP	512	258	174	110	3,250	157.54	79.38	53.54	33.85	-123.69	Yes	505	213	96	56	155.38	65.54	29.54	17.23	-138.15	Yes
New Cassel CDP	308	128	63	64	1,831	168.21	69.91	34.41	34.95	-133.26	Yes	306	117	21	26	167.12	63.90	11.47	14.20	-152.92	Yes
North Amityville CDP	535	191	113	96	3,232	165.54	59.24	35.11	29.61	-135.93	Yes	523	166	37	20	161.83	51.22	11.40	6.05	-155.78	Yes
North Bay Shore CDP	539	194	95	91	3,106	173.54	62.46	30.59	29.32	-144.22	Yes	524	148	26	12	168.71	47.65	8.37	3.82	-164.89	Yes
North Bellport CDP	301	129	82	61	2,006	150.02	64.53	41.02	30.28	-119.74	Yes	294	108	26	25	146.64	53.87	12.88	12.39	-134.25	Yes
Riverside CDP	71	26	14	15	525	134.56	50.27	27.07	29.26	-105.30	Yes	70	24	8	7	133.01	46.40	15.47	12.46	-120.55	Yes
Roosevelt CDP	634	195	129	91	2,820	224.82	69.15	45.74	32.27	-192.55	Yes	621	171	32	14	220.21	60.64	11.35	4.96	-215.25	Yes
Selden CDP	540	297	254	178	5,034	107.34	59.08	50.42	35.40	-71.94	Yes	526	231	88	52	104.56	45.90	17.39	10.30	-94.26	Yes
Shirley CDP	854	414	279	236	7,050	121.13	58.72	39.57	33.48	-87.66	Yes	816	310	88	65	115.74	43.97	12.48	9.22	-106.52	Yes
Uniondale CDP	707	238	179	130	4,525	156.24	52.60	39.56	28.73	-127.51	Yes	704	206	31	24	155.58	45.52	6.85	5.30	-150.28	Yes
Wheatley Heights CDP	175	65	45	45	1,265	138.44	51.38	35.47	35.35	-103.09	Yes	170	53	17	19	134.58	42.09	13.24	15.41	-119.18	Yes
Wyandanch CDP	459	131	48	54	1,718	267.04	76.08	27.84	31.15	-235.89	Yes	437	95	10	16	254.60	55.42	5.81	9.15	-245.45	Yes
Baldwin Harbor CDP	289	110	123	91	2,486	116.25	44.25	49.48	36.60	-79.65	No	289	99	55	37	116.25	39.82	22.12	14.88	-101.37	Yes
Bay Shore CDP	684	283	221	205	5,344	127.99	52.96	41.35	38.36	-89.63	No	665	231	90	90	124.44	43.23	16.84	16.84	-107.60	Yes
Baywood CDP	257	109	63	64	1,779	144.46	61.27	35.41	35.98	-108.49	No	250	83	20	18	140.53	46.66	11.24	10.12	-130.41	Yes
Brentwood CDP	1,985	608	378	398	9,508	208.77	63.95	39.76	41.85	-166.92	No	1,939	458	55	48	203.93	48.17	5.78	5.06	-198.87	Yes
Central Islip CDP	1,395	611	335	346	6,451	216.25	94.71	51.93	53.64	-162.61	No	1,342	502	132	119	208.03	77.82	20.46	18.45	-189.58	Yes
Copiague CDP	646	321	256	233	5,426	119.06	59.16	47.18	42.94	-76.12	No	640	276	135	104	117.95	50.87	24.88	19.17	-98.78	Yes
Deer Park CDP	790	376	335	285	7,579	104.25	49.65	44.24	37.57	-66.68	No	785	336	133	124	103.62	44.27	17.58	16.33	-87.29	Yes
Elmont CDP	948	396	300	259	7,125	133.02	55.63	42.06	36.36	-96.66	No	942	348	87	95	132.26	48.80	12.21	13.32	-118.94	Yes
Freeport village	1,278	594	448	368	8,886	143.82	66.85	50.42	41.41	-102.41	No	1,263	517	202	175	142.13	58.18	22.73	19.69	-122.44	Yes
Hempstead village	1,415	556	312	231	6,414	220.64	86.75	48.60	36.00	-184.64	No	1,392	502	124	66	217.06	78.34	19.30	10.28	-206.78	Yes
Huntington Station CDP	826	435	246	294	6,999	118.02	62.15	35.15	42.01	-76.01	No	820	400	134	139	117.16	57.15	19.15	19.86	-97.30	Yes
Moriches CDP	70	34	29	25	658	106.67	51.67	44.69	37.95	-68.72	No	66	27	13	11	99.83	40.29	19.48	17.06	-82.77	Yes
North Babylon CDP	508	314	249	191	5,085	99.90	61.75	48.97	37.56	-62.34	No	506	265	127	84	99.51	52.11	24.98	16.52	-82.99	Yes
North Lindenhurst CDP	251	150	94	88	2,628	95.51	57.08	35.77	33.49	-62.02	No	249	129	33	26	94.75	49.09	12.56	9.89	-84.86	Yes
North Patchogue CDP	249	187	126	90	1,942	127.99	96.50	65.02	46.39	-81.60	No	247	155	59	38	126.95	80.00	30.46	19.60	-107.35	Yes
Sound Beach CDP	357	204	146	93	2,208	161.68	92.39	66.12	42.28	-119.41	No	348	166	63	43	157.61	75.18	28.53	19.47	-138.14	Yes
Terryville CDP	307	157	129	134	2,930	104.78	53.58	44.03	45.73	-59.04	No	306	134	66	58	104.44	45.73	22.53	19.80	-84.64	Yes
Aquebogue CDP	82	38	28	26	772	105.83	49.11	35.97	34.19	-71.64	Yes	81	35	20	17	104.45	45.31	26.28	21.99	-82.46	No
Inwood CDP	162	74	56	43	1,305	124.14	56.70	42.91	32.95	-91.19	Yes	156	69	32	27	119.54	52.87	24.52	20.69	-98.85	No
North Sea CDP	150	77	45	43	1,296	115.53	59.26	35.05	33.04	-82.49	Yes	149	75	36	35	114.97	57.93	27.97	26.96	-88.01	No
Remsenburg-Speonk CDP	103	55	28	25	832	124.28	66.36	33.66	30.32	-93.96	Yes	103	54	22	20	123.95	64.52	26.06	23.71	-100.24	No
Riverhead CDP	317	170	103	87	2,876	110.15	58.94	35.68	30.26	-79.89	Yes	311	154	64	60	107.98	53.46	22.28	20.81	-87.17	No
Southampton village	84	43	31	22	865	97.11	49.71	35.84	25.43	-71.68	Yes	84	43	30	22	97.11	49.71	34.68	25.43	-71.68	No
Springs CDP	214	102	60	62	1,780	120.22	57.30	33.71	34.83	-85.39	Yes	214	101	44	45	120.22	56.74	24.72	25.28	-94.94	No
Total, low total lending cluster	8,427	3,533	2,373	1,844	57,845	145.68	61.07	41.02	31.88	-113.81		8,211	2,955	901	668	141.94	51.08	15.57	11.55	-130.40	
Total, low conv. lending cluster	19,570	8,421	5,812	4,930	131,567	148.75	64.00	44.18	37.47	-111.27		19,162	7,052	2,181	1,717	145.65	53.60	16.57	13.05	-132.59	

Table A.1. Lending in the Bottom Total and Conventional Clusters, 2005-2006 to 2011-2012

	2010 Census Pop	Racial composition, 2010 Census													Economic variables, ACS		
		Latino	%	Non-Latino White	%	Non-Latino Black	%	Non-Latino AIAN	%	Non-Latino Asian	%	Non-Latino Other	%	Households	Median income	Mean income
Brookhaven CDP	3,451	212	6.1	2,962	85.8	214	6.2	2	0.1	24	0.7	37	1.1	930	$82,647	$105,259
Flanders CDP	4,472	1,677	37.5	2,020	45.2	597	13.3	15	0.3	46	1	117	2.6	1,427	$82,942	$83,417
Gordon Heights CDP	4,042	1,012	25	783	19.4	1,971	48.8	62	1.5	75	1.9	139	3.4	1,133	$56,157	$67,013
Island Park village	4,655	1,234	26.5	3,170	68.1	64	1.4	3	0.1	115	2.5	69	1.5	1,592	$62,500	$79,073
Lakeview CDP	5,615	853	15.2	128	2.3	4,399	78.3	30	0.5	44	0.8	161	2.9	1,510	$102,022	$102,405
Mastic Beach CDP	12,930	2,019	15.6	9,251	71.5	1,120	8.7	29	0.2	186	1.4	325	2.5	4,777	$69,162	$72,836
Mastic CDP	15,481	3,378	21.8	10,062	65	1,247	8.1	50	0.3	323	2.1	421	2.7	4,910	$66,926	$75,452
Middle Island CDP	10,483	974	9.3	8,134	77.6	786	7.5	25	0.2	361	3.4	203	1.9	4,071	$68,446	$77,946
New Cassel CDP	14,059	7,577	53.9	841	6	5,225	37.2	10	0.1	174	1.2	232	1.7	3,017	$71,506	$86,264
North Amityville CDP	17,862	5,093	28.5	1,907	10.7	10,076	56.4	130	0.7	167	0.9	489	2.7	5,289	$61,514	$70,298
North Bay Shore CDP	18,944	12,310	65	2,585	13.6	2,894	15.3	38	0.2	697	3.7	420	2.2	4,796	$71,051	$85,908
North Bellport CDP	11,545	3,382	29.3	4,435	38.4	2,868	24.8	98	0.8	288	2.5	474	4.1	3,526	$72,399	$79,074
Riverside CDP	2,911	872	30	1,236	42.5	706	24.3	27	0.9	7	0.2	63	2.2	723	$33,308	$47,322
Roosevelt CDP	16,258	5,548	34.1	326	2	9,873	60.7	59	0.4	85	0.5	367	2.3	4,221	$67,451	$81,672
Selden CDP	19,851	2,750	13.9	15,343	77.3	568	2.9	13	0.1	866	4.4	311	1.6	6,418	$83,794	$89,192
Shirley CDP	27,854	4,781	17.2	19,966	71.7	1,768	6.3	72	0.3	701	2.5	566	2.0	7,564	$84,662	$90,132
Uniondale CDP	24,759	9,616	38.8	2,497	10.1	11,581	46.8	60	0.2	499	2	506	2.0	6,043	$72,370	$84,506
Wheatley Heights CDP	5,130	692	13.5	1,237	24.1	2,701	52.7	14	0.3	285	5.6	201	3.9	1,441	$84,258	$108,823
Wyandanch CDP	11,647	3,286	28.2	579	5	7,326	62.9	70	0.6	121	1	265	2.3	3,006	$53,948	$68,325
Baldwin Harbor CDP	8,102	959	11.8	4,449	54.9	2,055	25.4	8	0.1	392	4.8	239	2.9	2,695	$100,078	$114,507
Bay Shore CDP	26,337	8,101	30.8	12,055	45.8	4,590	17.4	94	0.4	845	3.2	652	2.5	9,276	$65,925	$81,716
Baywood CDP	7,350	2,548	34.7	3,372	45.9	976	13.3	17	0.2	288	3.9	149	2.0	2,127	$86,425	$90,675
Brentwood CDP	60,664	41,529	68.5	8,554	14.1	8,344	13.8	132	0.2	1,101	1.8	1,004	1.7	13,836	$68,925	$79,978
Central Islip CDP	34,450	17,938	52.1	6,683	19.4	7,740	22.5	110	0.3	1,112	3.2	867	2.5	9,802	$67,028	$78,357
Copiague CDP	22,993	7,523	32.7	13,167	57.3	1,455	6.3	43	0.2	464	2	341	1.5	7,340	$71,553	$85,658
Deer Park CDP	27,745	3,364	12.1	18,755	67.6	3,182	11.5	37	0.1	1,871	6.7	536	1.9	9,343	$85,766	$95,850
Elmont CDP	33,198	7,236	21.8	6,494	19.6	14,587	43.9	98	0.3	3,609	10.9	1,174	3.5	9,616	$85,040	$95,638
Freeport village	42,860	17,858	41.7	10,113	23.6	13,226	30.9	94	0.2	669	1.6	900	2.1	13,697	$70,648	$87,360
Hempstead village	53,891	23,823	44.2	3,548	6.6	24,724	45.9	96	0.2	704	1.3	996	1.8	16,303	$53,729	$66,703
Huntington Station CDP	33,029	12,109	36.7	15,722	47.6	3,299	10	60	0.2	1,154	3.5	685	2.1	10,348	$72,548	$90,238
Moriches CDP	2,838	247	8.7	2,400	84.6	72	2.5	4	0.1	79	2.8	36	1.3	1,226	$68,235	$83,868
North Babylon CDP	17,509	2,221	12.7	13,310	76	1,009	5.8	16	0.1	696	4	257	1.5	6,062	$88,027	$99,017
North Lindenhurst CDP	11,652	2,246	19.3	8,286	71.1	564	4.8	14	0.1	362	3.1	180	1.5	3,772	$74,912	$88,504
North Patchogue CDP	7,246	1,491	20.6	5,383	74.3	155	2.1	10	0.1	127	1.8	80	1.1	2,276	$78,664	$87,687
Sound Beach CDP	7,612	475	6.2	6,781	89.1	89	1.2	13	0.2	134	1.8	120	1.6	2,422	$84,750	$98,296
Terryville CDP	11,849	1,831	15.5	9,236	77.9	266	2.2	8	0.1	364	3.1	144	1.2	3,711	$78,294	$101,540
Aquebogue CDP	2,438	290	11.9	2,027	83.1	102	4.2	1	0	5	0.2	13	0.5	818	$84,875	$89,640
Inwood CDP	9,792	4,190	42.8	2,786	28.5	2,258	23.1	11	0.1	322	3.3	225	2.3	2,886	$54,654	$69,322
North Sea CDP	4,458	748	16.8	3,536	79.3	40	0.9	5	0.1	69	1.5	60	1.3	1,971	$79,650	$125,330
Remsenburg-Speonk CDP	2,642	209	7.9	2,348	88.9	33	1.2	2	0.1	19	0.7	31	1.2	830	$98,698	$118,027
Riverhead CDP	13,299	3,369	25.3	7,325	55.1	2,033	15.3	32	0.2	220	1.7	320	2.4	4,964	$53,140	$68,301
Southampton village	3,109	503	16.2	2,187	70.3	297	9.6	19	0.6	51	1.6	52	1.7	1,351	$90,855	$206,839
Springs CDP	6,592	2,410	36.6	3,945	59.8	94	1.4	9	0.1	97	1.5	37	0.6	2,337	$72,557	$100,656
Total, low total lending cluster	274,279	78,985	28.8	111,616	40.7	70,841	25.8	886	0.3	5,847	2.1	6,104	2.2	81,551		$84,733
Total, low conv. lending cluster	641,274	218,765	34.1	235,770	36.8	152,317	23.8	1,661	0.3	19,035	3.0	13,726	2.1	190,246		$84,549

Table A.2. Bottom Cluster Demographic Profile

	Total originations					Rate per 1000 owner-occupied units					High total lend.	Conventional lending				Rate per 1000 owner-occupied units					High conv lend.
	2005-2006	2007-2008	2009-2010	2011-2012	Total owner-occ. units, 2010	2005-2006	2007-2008	2009-2010	2011-2012	05/06-11/12 change		2005-2006	2007-2008	2009-2010	2011-2012	2005-2006	2007-2008	2009-2010	2011-2012	05/06-11/12 change	
Cedarhurst village	99	79	64	82	1,516	65.30	52.11	42.22	54.09	-11.21	Yes	99	78	56	69	65.30	51.45	36.94	45.51	-19.79	Yes
East Hills village	123	108	89	114	2,212	55.47	48.65	40.16	51.64	-3.83	Yes	123	106	84	104	55.47	47.91	37.78	47.24	-8.23	Yes
East Williston village	43	44	31	46	822	52.31	53.53	37.71	55.96	3.65	Yes	43	43	29	45	52.31	52.31	35.28	54.74	2.43	Yes
Flower Hill village	111	85	82	83	1,373	80.84	61.91	59.72	60.45	-20.39	Yes	111	85	82	80	80.84	61.91	59.72	58.27	-22.58	Yes
Garden City Park CDP	145	138	90	99	2,073	69.95	66.57	43.42	47.76	-22.19	Yes	145	138	71	87	69.95	66.57	34.25	41.97	-27.98	Yes
Garden City village	501	439	351	389	6,919	72.46	63.50	50.66	56.17	-16.29	Yes	501	436	333	363	72.46	63.07	48.06	52.42	-20.04	Yes
Great Neck Estates village	58	48	37	47	840	68.88	57.30	44.50	56.13	-12.75	Yes	58	48	37	47	68.88	57.30	44.50	56.13	-12.75	Yes
Jericho CDP	296	293	224	205	3,905	75.75	74.93	57.48	52.62	-23.13	Yes	296	291	209	189	75.75	74.43	53.44	48.27	-27.47	Yes
Lloyd Harbor village	70	62	40	58	1,107	63.23	56.01	36.13	52.39	-10.84	Yes	70	62	40	56	63.23	56.01	36.13	50.59	-12.65	Yes
Manhasset CDP	177	132	105	138	2,110	83.89	62.56	49.76	65.40	-18.48	Yes	177	129	102	136	83.89	61.14	48.34	64.45	-19.43	Yes
Munsey Park village	61	57	46	49	806	75.68	70.72	57.07	60.79	-14.89	Yes	61	57	45	49	75.68	70.72	55.83	60.79	-14.89	Yes
Nissequogue village	34	18	26	25	529	64.38	33.16	48.77	47.89	-16.49	Yes	34	18	24	23	64.38	33.16	45.84	43.99	-20.39	Yes
North New Hyde Park CDP	298	251	212	209	4,563	65.31	55.01	46.46	45.80	-19.50	Yes	298	245	178	179	65.31	53.69	39.01	39.23	-26.08	Yes
Old Westbury village	64	44	29	49	978	65.24	44.56	30.00	49.75	-15.49	Yes	64	43	28	48	65.24	43.50	28.75	48.68	-16.56	Yes
Rockville Centre village	544	452	395	383	6,776	80.27	66.70	58.29	56.52	-23.75	Yes	544	443	352	341	80.27	65.37	51.94	50.32	-29.95	Yes
Sands Point village	65	38	43	52	839	77.24	45.17	50.92	61.73	-15.51	Yes	65	37	43	51	77.24	44.51	50.76	61.08	-16.16	Yes
Syosset CDP	409	357	312	289	5,666	72.18	63.01	55.07	51.01	-21.18	Yes	409	354	282	264	72.18	62.48	49.77	46.59	-25.59	Yes
Thomaston village	69	56	43	51	774	89.78	72.03	55.33	65.39	-24.39	Yes	69	56	43	50	89.78	72.03	55.33	64.34	-25.44	Yes
Williston Park village	113	118	87	95	2,030	55.67	58.13	42.86	46.80	-8.87	Yes	113	117	74	76	55.67	57.64	36.45	37.44	-18.23	Yes
Woodmere CDP	330	247	179	241	4,746	69.53	52.04	37.72	50.78	-18.75	Yes	330	242	159	214	69.53	50.99	33.50	45.09	-24.44	Yes
Brookville village	42	33	19	24	574	73.22	56.64	33.16	41.15	-32.07	No	42	33	19	24	73.22	56.64	33.16	41.15	-32.07	Yes
Fort Salonga CDP	209	137	118	138	3,082	67.81	44.31	38.19	44.70	-23.11	No	209	131	105	117	67.81	42.47	34.22	38.03	-29.78	Yes
Great Neck village	187	162	128	121	2,480	75.40	65.32	51.61	48.76	-26.64	No	186	162	123	112	75.00	65.32	49.60	45.14	-29.86	Yes
Herricks CDP	83	80	59	53	1,280	64.84	62.50	46.09	41.41	-23.44	No	83	78	56	48	64.84	60.94	43.75	37.50	-27.34	Yes
Kings Point village	66	46	39	46	1,209	54.59	38.05	32.26	38.03	-16.56	No	66	46	39	46	54.59	38.05	32.26	38.03	-16.56	Yes
Lake Success village	76	74	52	53	777	97.87	94.82	67.44	67.89	-29.98	No	76	73	52	52	97.87	94.32	66.93	67.42	-30.45	Yes
Lattingtown village	33	29	18	22	541	60.51	52.70	34.16	41.26	-19.25	No	33	29	17	21	60.51	52.70	31.23	39.30	-21.21	Yes
Laurel Hollow village	42	33	40	26	570	73.18	57.33	70.91	45.79	-27.39	No	42	32	39	25	73.18	56.58	67.89	44.28	-28.89	Yes
Manhasset Hills CDP	82	58	50	53	1,094	74.95	53.02	45.70	48.45	-26.51	No	82	57	48	48	74.95	52.10	43.88	43.88	-31.08	Yes
North Hills village	117	113	81	86	2,014	58.07	56.27	40.02	42.83	-15.25	No	117	113	80	86	58.07	55.97	39.72	42.51	-15.56	Yes
Old Bethpage CDP	90	82	62	74	1,702	52.88	48.18	36.43	43.48	-9.40	No	90	81	48	64	52.88	47.59	28.20	37.60	-15.28	Yes
Oyster Bay Cove village	49	38	30	30	655	74.64	58.48	45.40	45.76	-28.88	No	49	38	29	29	74.64	57.71	44.63	44.22	-30.42	Yes
Plainview CDP	522	449	357	357	8,250	63.27	54.42	43.27	43.27	-20.00	No	522	441	306	307	63.27	53.45	37.09	37.21	-26.06	Yes
Woodbury CDP	197	134	110	131	2,602	75.71	51.50	42.28	50.35	-25.37	No	197	134	106	125	75.71	51.50	40.74	48.04	-27.67	Yes
Brightwaters village	68	48	47	50	1,021	66.60	47.01	46.03	48.97	-17.63	Yes	68	46	35	29	66.60	45.05	34.28	28.40	-38.20	No
East Meadow CDP	653	520	474	518	10,710	61.00	48.57	44.22	48.41	-12.59	Yes	651	496	323	348	60.81	46.31	30.20	32.46	-28.35	No
Oakdale CDP	157	135	150	123	2,482	63.26	54.39	60.44	49.56	-13.70	Yes	156	131	123	87	62.85	52.78	49.56	35.05	-27.80	No
Plainedge CDP	178	134	104	124	2,620	67.91	51.13	39.68	47.32	-20.59	Yes	178	128	67	88	67.91	48.84	25.56	33.58	-34.33	No
Top cluster, total lending	4,666	3,902	3,259	3,519	67,417	69.21	57.87	48.35	52.20	-17.01		4,663	3,828	2,818	3,022	69.17	56.78	41.80	44.83	-24.34	
Top cluster, conv. lending	5,404	4,531	3,648	3,918	77,414	69.81	58.53	47.13	50.60	-19.20		5,403	4,474	3,337	3,575	69.80	57.80	43.11	46.18	-23.62	

Table A.3. Lending in the Top Total and Conventional Clusters, 2005-2006 to 2011-2012

APPENDIX

	Total Pop, 2010 Census	Racial composition, 2010 Census													Economic variables, ACS		
		Latino	%	Non-Latino White	%	Non-Latino Black	%	Non-Latino AIAN	%	Non-Latino Asian	%	Non-Latino Other	%	House-holds	Median income	Mean income
Cedarhurst village	6,592	705	10.7	5,423	82.3	134	2	2	0	236	3.6	92	1.4	2,183	$77,783	$109,694
East Hills village	6,955	156	2.2	6,140	88.3	66	0.9	0	0	513	7.4	80	1.2	2,188	$190,671	$279,645
East Williston village	2,556	110	4.3	2,316	90.6	8	0.3	0	0	99	3.9	23	0.9	850	$135,357	$197,091
Flower Hill village	4,665	271	5.8	3,670	78.7	34	0.7	0	0	591	12.7	99	2.1	1,390	$212,619	$261,177
Garden City Park CDP	7,806	942	12.1	3,790	48.6	282	3.6	20	0.3	2,578	33	194	2.5	2,534	$90,818	$112,854
Garden City village	22,371	1,003	4.5	20,034	89.6	294	1.3	6	0	792	3.5	242	1.1	7,389	$141,239	$197,043
Great Neck Estates village	2,761	80	2.9	2,336	84.6	21	0.8	3	0.1	281	10.2	40	1.4	907	$129,583	$193,775
Jericho CDP	13,567	401	3	9,297	68.5	247	1.8	4	0	3,442	25.4	176	1.3	4,493	$144,304	$179,305
Lloyd Harbor village	3,660	120	3.3	3,378	92.3	34	0.9	2	0.1	80	2.2	46	1.3	1,073	$196,875	$318,968
Manhasset CDP	8,080	711	8.8	5,629	69.7	744	9.2	7	0.1	877	10.9	112	1.4	2,674	$108,500	$168,381
Munsey Park village	2,693	87	3.2	2,380	88.4	11	0.4	0	0	173	6.4	42	1.6	805	$175,982	$273,865
Nissequogue village	1,749	60	3.4	1,570	89.8	11	0.6	0	0	87	5	21	1.2	529	$182,813	$270,852
North New Hyde Park CDP	14,899	1,078	7.2	9,059	60.8	90	0.6	28	0.2	4,329	29.1	315	2.1	4,646	$105,496	$122,061
Old Westbury village	4,671	316	6.8	2,950	63.2	708	15.2	8	0.2	574	12.3	115	2.5	964	$208,000	$311,792
Rockville Centre village	24,023	2,169	9	20,015	83.3	1,039	4.3	13	0.1	498	2.1	289	1.2	9,105	$112,268	$151,002
Sands Point village	2,675	125	4.7	2,265	84.7	20	0.7	0	0	219	8.2	46	1.7	888	$214,500	$363,038
Syosset CDP	18,829	775	4.1	13,458	71.5	137	0.7	12	0.1	4,162	22.1	285	1.5	6,128	$130,726	$160,182
Thomaston village	2,617	137	5.2	1,667	63.7	25	1	2	0.1	731	27.9	55	2.1	1,026	$122,083	$160,034
Williston Park village	7,287	442	6.1	5,817	79.8	55	0.8	4	0.1	852	11.7	117	1.6	2,620	$107,622	$118,398
Woodmere CDP	17,121	790	4.6	14,738	86.1	687	4	5	0	786	4.6	115	0.7	5,183	$128,011	$168,648
Brookville village	3,465	219	6.3	2,485	71.7	372	10.7	8	0.2	351	10.1	30	0.9	847	$218,750	$368,815
Fort Salonga CDP	10,008	388	3.9	9,214	92.1	84	0.8	11	0.1	216	2.2	95	0.9	3,313	$132,330	$182,111
Great Neck village	9,989	1,015	10.2	7,749	77.6	176	1.8	2	0	721	7.2	326	3.3	3,460	$86,722	$113,002
Herricks CDP	4,295	169	3.9	2,137	49.8	19	0.4	5	0.1	1,854	43.2	111	2.6	1,319	$120,568	$151,481
Kings Point village	5,005	84	1.7	4,515	90.2	40	0.8	1	0	167	3.3	198	4.0	1,312	$105,625	$172,384
Lake Success village	2,934	81	2.8	1,920	65.4	96	3.3	2	0.1	791	27	44	1.5	799	$171,563	$286,864
Lattingtown village	1,739	41	2.4	1,616	92.9	8	0.5	0	0	47	2.7	27	1.6	623	$119,453	$235,360
Laurel Hollow village	1,952	45	2.3	1,708	87.5	29	1.5	3	0.2	149	7.6	18	0.9	567	$196,563	$311,921
Manhasset Hills CDP	3,592	210	5.8	1,868	52	22	0.6	4	0.1	1,412	39.3	76	2.1	1,213	$121,758	$150,937
North Hills village	5,075	112	2.2	3,530	69.6	54	1.1	0	0	1,283	25.3	96	1.9	2,273	$131,677	$214,379
Old Bethpage CDP	5,523	189	3.4	4,926	89.2	11	0.2	1	0	342	6.2	54	1.0	1,821	$116,250	$140,020
Oyster Bay Cove village	2,197	48	2.2	1,910	86.9	33	1.5	0	0	187	8.5	19	0.9	694	$220,250	$352,002
Plainview CDP	26,217	1,046	4	21,881	83.5	110	0.4	17	0.1	2,799	10.7	364	1.4	8,935	$121,750	$143,477
Woodbury CDP	8,907	199	2.2	7,586	85.2	114	1.3	0	0	912	10.2	96	1.1	3,095	$149,654	$212,899
Brightwaters village	3,103	159	5.1	2,810	90.6	38	1.2	1	0	48	1.5	47	1.5	1,047	$118,393	$144,342
East Meadow CDP	38,132	4,653	12.2	26,628	69.8	1,867	4.9	24	0.1	4,400	11.5	560	1.5	12,288	$93,607	$107,422
Oakdale CDP	7,974	314	3.9	7,427	93.1	81	1	1	0	102	1.3	49	0.6	2,852	$95,962	$112,077
Plainedge CDP	8,817	684	7.8	7,584	86	64	0.7	6	0.1	399	4.5	80	0.9	2,831	$102,250	$114,842
Top cluster, total lending	233,603	16,288	7.0	180,381	77.2	6,697	2.9	148	0.1	26,849	11.5	3,240	1.4	76,593		$160,228
Top cluster, conv. Lending	266,475	14,324	5.4	208,977	78.4	5,815	2.2	170	0.1	33,131	12.4	4,058	1.5	87,846		$177,041

Table A.4. Top Cluster Demographic Profile

ENDNOTES

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[3] Daniel Immergluck, *Foreclosed: High-Risk Lending, Deregulation, and the Undermining of America's Mortgage Market* (Ithaca: Cornell University Press, 2009); Isaac W. Martin and Christopher Niedt, *Foreclosed America* (Stanford: Stanford University Press Briefs, 2015).

[4] Michael Hanley, Ruhi Maker, and Barbara Van Kerkove, "The Long Island Foreclosure Crisis: Stabilizing the Communities Most Impacted by Foreclosures in Nassau and Suffolk Counties," Empire Justice Center, April 15, 2013, available from www.empirejustice.org; New York Communities for Change, 2011, "Foreclosure Crisis: Disproportionate Impact on African-American and Latino Households and Neighborhoods," New York Communities for Change, January 1, 2011, available from nycommunities.org.

[5] See especially the reports *Paying More for the American Dream IV: The Decline of Prime Mortgage Lending in Communities of Color*, *Paying More for the American Dream V: The Persistence of Evolution of the Dual Mortgage Market*, and *Paying More for the American Dream VI: Racial Disparities in FHA/VA Lending*, available at www.calreinvest.org.

[6] Christopher Niedt, with Sandra Garren, "Mortgage Volume and Price on Long Island, 2005-2010: An Analysis of HMDA Data," National Center for Suburban Studies at Hofstra University, August 20, 2012, available at www.hofstra.edu.

[7] The rate spread calculation during 2005-2006 measures the difference between the interest rate of the loan and of the corresponding U.S. treasury. Only "high-rate" loans with spreads above three percentage points for a first lien, or five points for junior lien are reported. We follow the convention of using high interest rate as a general proxy for other subprime features.

[8] For this reason, data for places that are smaller than a single tract are less reliable.

[9] Note that due to Census data availability, Black and Asian groups overlap with Latino in the measurement of homeownership rates specifically.

[10] They include only completed applications that were rejected by the lender. Approvals and those that the lender accepted, but which were declined by the applicant, were included in the "other" category. This analysis excludes incomplete or withdrawn applications. The overall results for both 2011 and 2012 were similar with respect to key variables. However, some minor discrepancies do exist. The analysis will emphasize factors that are common to both years.

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[12] Sarah Rosen Wartell and Mark A. Willis, "FHA: Reforms to Protect Taxpayers and Borrowers," *Housing Policy Debate* 24, no. 3 (2014): 651-662.

[13] James H. Carr and Katrin B. Anacker, "Addressing the Dual Mortgage Market: A Vision of the Future of the Federal Housing Administration," unpublished paper.

[14] See HUD Mortgagee Letter 2013-04, available at http://portal.hud.gov/hudportal/documents/huddoc?id=13-04ml.pdf. Also, see John C. Weicher, "FHA in the Great Recession: Re-Balancing Its Role," *Housing Policy Debate* 24, no. 3 (2014): 637-43.

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[17] Kirk McClure, personal communication; Jim Puzzanghera, "FHA to get $1.7 billion in its first taxpayer-funded bailout," *Los Angeles Times*, Sept 28, 2013.

[18] Because the communities with low conventional lending and high total lending have much larger populations than those with high conventional lending and low total lending, the population of the bottom conventional cluster is more than twice as large as the bottom total lending cluster.

[19] More than half of Continental Home Loans originations were FHA in 2011-2012, placing the company in the "more than 50% FHA" category used in the previous section. For the remaining nine lenders, FHA loans accounted for more than 0% but less than 50% of all originations, placing them within the middle category.

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[22] See, e.g., Debbie Gruenstein Bocian, Keith S. Ernest, Wei Li, "Race, Ethnicity, and Subprime Loan Pricing," *Journal of Economics and Business* 60 (2008): 110-124; Elvin Wyly, "The Subprime State of Race," in Susan J. Smith and Beverley A. Searle, eds., *The Blackwell Companion to the Economics of Housing* (Malden, Mass.: Blackwell, 2010)*: 382-413.

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