POLICY BRIEF

The High Cost of Segregation: Exploring the Relationship Between Racial Segregation and Subprime Lending

What We Know About Racial Disparities in High Cost Lending

It has been widely reported that the subprime mortgage crisis has disproportionately hit communities of color. Academic research, media reports, and commentary from HUD Secretary Shaun Donovan all highlight the disproportionate impact that subprime lending has had on both black and Hispanic borrowers and the neighborhoods in which they live. The Furman Center's analysis of nationwide mortgage lending data, for example, shows that in 2006, the percentage of black borrowers that received a subprime loan was three times higher than for white borrowers, and the percentage for Hispanic borrowers was two and half times higher than for white borrowers.[1] In New York City, we found an even greater dispar-

ity: the percentage of black borrowers that entered into a high cost loan was five times higher than for white borrowers; and for Hispanics, the percentage was three and half times higher than for white borrowers. In 2007, as the housing market began to unravel and subprime lending decreased, these racial disparities persisted across the country, and actually grew in New York City: in 2007, the percentage of black borrowers that obtained subprime loans was seven times that for white borrowers.

Research shows that subprime loans are more likely to result in foreclosure, even when individual borrower characteristics and other factors that influence the probability of foreclosure are taken into account. If black and Hispanic borrowers are more likely than white borrowers to receive such loans, then blacks and Hispanics will disproportionately suffer the consequences of foreclosures. Black and Hispanic families will be more likely than white families to lose the savings they put into the down payment or into maintenance and improvements, to be displaced from their homes and neighborhoods, and to suffer damaged credit ratings and other consequences of

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[1] In this brief we define subprime lending as all loans that are high cost, and use the terms "subprime loan" and "high cost loan" interchangeably. We classify first lien home purchase loans as high cost if they have an interest rate more than three percentage points higher than the federal treasury rate of like maturity. Our calculations use mortgage loan data reported by lenders under the Home Mortgage Disclosure Act (HMDA) and made available by the Federal Financial Institutions Examination Council.
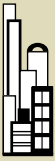
foreclosure. Neighborhoods with higher percentages of black and Hispanic residents will be disproportionately likely to suffer vacant and abandoned properties, as well as increases in crime and decreases in property values, which have been found to result from foreclosure activity.
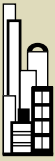
Because the racial disparities in subprime lending are so stark and the consequences so severe, researchers and policymakers have sought to better understand the circumstances that produce the disparities. At least some portion of the disparity is the direct result of underlying economic inequality between racial groups in the U.S.; whites, on average, have higher incomes, greater wealth, and better credit than black or Hispanic households. Another possible cause for the disparities might be different levels of access to information about borrowing and different levels of sophistication about such financial matters. Finally, racial discrimination in mortgage markets might be responsible for some of this disparity. This discrimination could take multiple forms. Some lenders or brokers may avoid issuing prime loans to minority borrowers, while other lenders or brokers may target minority borrowers with aggressive marketing of subprime loans.

In this brief, we describe research exploring whether the racial segregation of U.S. cities might help to facilitate these mechanisms and make disparities more pronounced. To examine this question, we conducted two types of analysis. First, we looked at the relationship between residential segregation and subprime lending: using national data, we tested whether black and Hispanic borrowers are more likely to receive subprime loans if they live in a more racially segregated metropolitan area.[2] Second, we used more detailed data from New York City to examine the relationship between the racial composition of an individual neighborhood and the probability that the residents of that neighborhood will obtain subprime loans. In this policy brief, we summarize our findings from both analyses, discuss their implications for public policy, and outline the additional research that must be done to more fully understand the relationship between neighborhood segregation and troubling racial disparities in subprime lending.[3]

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[2] For our national analysis, we use HMDA data for loans issued in 2006, which we believe represents the most recent complete set of single-year mortgage lending data. Although 2007 HMDA data is now available, because of the turmoil in the real estate markets and mortgage lending industry beginning in 2007, several institutions that originated loans that year did not survive long enough to report their lending activity.

[3] The complete paper, "The High Cost of Segregation: Exploring Racial Disparities in High Cost Lending," which includes a more detailed description of our methods, can be found in the April, 2009 edition of the *Fordham Urban Law Journal* or at: http://furmancenter.org/files/High_Cost_of_Segregation_Furman_Center_Working_paper.pdf.

Why might racial segregation affect subprime lending?

There are several theories that help to explain why higher levels of segregation might lead to higher rates of subprime lending to people of color. First, segregation may exacerbate underlying economic inequality between racial and ethnic groups. For example, segregation may isolate racial minorities from job opportunities and social and economic networks and lead to a concentration of poverty, thereby making it harder for minorities to build wealth, gain access to credit and move out of poverty. Because a borrower's income, wealth and credit rating all affect the likelihood the borrower will obtain a subprime loan, to the extent that segregation intensifies underlying inequality, it also could magnify differential rates of subprime lending.

Another theory suggests that by increasing the social isolation of racial minorities, segregation may limit their access and exposure to financial information such as strategies for shopping for lower-cost loans, and cause racial disparities in financial know-how. Lack of information and sophistication about mortgages may lead black and Hispanic borrowers to rely disproportionately on local mortgage brokers rather than lower cost bank branches or internet-based brokers. This might be particularly true if there are fewer traditional bank branches borrowers can visit, which is often the case in heavily minority neighborhoods.

Finally, racial segregation could make people of color more vulnerable to redlining by prime lenders, and to racial targeting by subprime lenders. Traditionally, minority neighborhoods have been less likely than similar white neighborhoods to be served by prime lending institutions. Such redlining creates a demand for alternative sources of credit, which may then result in disproportionate reliance on subprime loans.

Similarly, if predatory lenders or lenders specializing in subprime loans are interested in targeting racial minorities for their products, higher levels of segregation make it easier for such lenders to focus their marketing to communities of color.

Are borrowers who live in more racially segregated metropolitan areas more or less likely to obtain subprime loans?

A few previous studies have looked at the relationship between residential segregation of a metropolitan area, on the one hand, and that metropolitan area's overall subprime lending rate or the overall disparity in subprime lending rates between borrowers of different races, on the other. These studies have generally found more segregated metropolitan areas to have higher rates of high cost lending and higher disparities. However, previous studies relied on aggregate metropolitan area-level data. The Furman Center's research extends this previous work by using data on individual borrowers to explore the relationship between black-white segregation and Hispanic-white segregation in a metropolitan area and the probability that individual borrowers of different racial groups would obtain subprime loans. By looking at the outcomes of *individual* borrowers, we were able to control not only for metropolitan area characteristics, but also for some key borrower characteristics, improving our confidence in our results. Using this method, we could also see how the relationship between segregation and high cost borrowing varied for borrowers of different races.

Our analysis looked at 200 Metropolitan Statistical Areas (MSAs) across the country. To identify levels of segregation, we used the dissimilarity index—a commonly-used
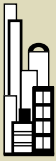
measure of how evenly distributed residents of different races are within an area.[4] To isolate the effect of living in a more or less segregated region from some of the other factors that may influence loan outcomes, we controlled for the individual characteristics of borrowers, including the amount of their loan, their income, gender, and whether the applicant had a co-signer.[5] We also controlled for a number of the characteristics of metropolitan areas that might affect the probability of borrowers obtaining high-cost loans, including the median income, size and demographics. By controlling for the characteristics of both the individual borrowers and the metropolitan areas in which they live, we were better able to isolate the relationship between segregation and the probability that an individual borrower obtained a subprime loan.

Table A summarizes our results. For simplicity, we summarize our results by dividing metropolitan areas into four quartiles based on their level of black-white segregation and

into four separate quartiles based on their level of Hispanic-white segregation. Our results suggest that the average black borrower faced a 45 percent chance of obtaining a high-cost loan if she lived in a metropolitan area in the least segregated quartile, but faced a 56 percent chance of obtaining a high-cost loan if she lived instead in a metropolitan area in the most segregated quartile. As for the average Hispanic borrower, the likelihood that he or she obtained a high cost loan was 45 percent in a metropolitan area in the quartile with the lowest level of Hispanic-white segregation. If the same borrower lived in a metropolitan area in the most segregated quartile, this probability rose slightly to 47 percent.

In sum, controlling for other factors, minority borrowers—and especially black borrowers—were more likely to obtain high cost loans in metropolitan areas in which their racial group is more segregated. By contrast, the likelihood that white borrowers would obtain a high cost loan was unrelated to the level of black-white or Hispanic-white segregation.

Minority residents living in more segregated metropolitan areas are more likely to live in neighborhoods with a higher proportion of minority residents. Accordingly, while our metropolitan area-level analysis cannot

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[4] The dissimilarity index captures the extent to which two groups (in this case, blacks and whites or Hispanics and whites) are distributed differently across neighborhoods within a metropolitan area. Because we are using census data, we observe segregation levels as of 2000, the last year for which census data on demographics at the tract level is available.

[5] We did not have access to information about the borrower's credit score or the loan-to-value ratio of the loan, which are also important factors in predicting loan outcomes.

Table A: The Likelihood of Receiving a High Cost Home Purchase Loan for a Typical Borrower of Given Race, by Segregation Level of Metropolitan Area

	Segregation Level of MSA, by Quartile			
	Q1: Low Segregation	Q2: Low/Mod Segregation	Q3: Mod/High Segregation	Q4: High Segregation
White	0.16	0.14	0.16	0.16
Black	0.45	0.46	0.53	0.56
White	0.16	0.15	0.17	0.14
Hispanic	0.45	0.45	0.47	0.47

Note: All borrower and metropolitan area characteristics (other than the segregation level of the MSA) are assumed to be the average for a borrower of that race. The difference in the probablility that a white borrower versus a black or Hispanic borrower, living in the same MSA, will receive a subprime loan is statistically significant at the 99% level.
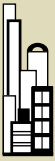
parse out what is driving the higher rates of subprime lending in more segregated areas, it does suggest that the racial composition of the neighborhood a borrower lives in contributes to his or her chances of getting a subprime loan. To investigate this question more directly, we expanded our analysis to look also at the dynamics of neighborhood racial composition.

How does the composition of the borrower's neighborhood influence the kind of loan the borrower receives?

To explore the relationship between the racial composition of one's neighborhood and the likelihood he or she would obtain a subprime loan, we analyzed mortgage lending data for New York City neighborhoods (which we defined as census tracts). To measure loan activity, we compiled data on all conventional first lien home purchase loans issued for 1-4 family, owner-occupied properties in New York City from 2004 to 2007. To measure neighborhood demographics, we ranked the City's census tracts by percent non-white, and grouped all of the tracts into quartiles, ranging from "low non-white

concentration" to "high non-white concentration." We then ran statistical tests to examine whether, after controlling for individual and neighborhood characteristics, borrowers were more likely to obtain high-cost loans if they lived in neighborhoods with higher shares of non-white residents.

Table B shows the probability that an average borrower of a given race, controlling for borrower and neighborhood characteristics, would receive a subprime loan if he or she lived in neighborhoods in each of those quartiles. In sum, we found that as the share of non-white residents in a neighborhood increased, the probability that borrowers in that neighborhood would receive a subprime loan also increased.[6] These findings held true for Hispanic, black and white borrowers. As Table B shows, a Hispanic borrower with average characteristics living in an area of the City with the lowest concentration of non-white residents had a 14% chance of obtaining a high cost loan. If that same borrower lived in an area of the City with the highest concentration of non-

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[6] Unfortunately, we do not have the data to control for all relevant differences between borrowers who live in predominantly minority neighborhoods and borrowers who live in predominantly white neighborhoods. Such controls would be important to include in order to be more confident that the racial composition of the neighborhood was truly causing these disparities.

Table B: The Likelihood of Receiving a High Cost Home Purchase Loan for a Typical Borrower of Given Race, by the Non-White Concentration of the Borrower's Census Tract

	Q1: Low Non-White Concentration	Q2: Low/Mod Non-White Concentration	Q3: Mod/High Non-White Concentration	Q4: High Non-White Concentration
White	0.05	0.11	0.11	0.18
Black	0.24	0.3	0.34	0.38
White	0.03	0.05	0.11	0.16
Hispanic	0.14	0.22	0.28	0.31

Note: All borrower and census tract characteristics (other than the share of blacks or Hispanics in the census tract) are assumed to be the average for a borrower of that race. The difference in the probablility that a white borrower versus a black or Hispanic borrower, living in the same neighborhood, will receive a subprime loan is statistically significant at the 99% level.
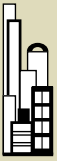
white residents, all other things equal, she had a 31% chance of obtaining a subprime loan. The same was true for the average black borrower, whose chance of obtaining a subprime loan increased from 24% to 38% depending on whether the borrower lived in a neighborhood with the lowest concentration of non-white residents or highest concentration of non-white residents. Finally, the average white borrower living in a census tract with the lowest concentration of non-white residents had a 3% chance of receiving a high cost loan. But if that same white borrower lived in an area with the highest concentration of non-white residents, the likelihood that she would have received a subprime loan increased to 16%.

In sum, borrowers of all races were more likely to obtain high-cost loans if they lived in predominantly non-white neighborhoods. This finding may suggest that subprime lenders were targeting neighborhoods with large minority populations, or it may reflect underlying neighborhood characteristics, such as the scarcity of traditional banking institutions in the neighborhood.

What do these findings mean for future policy and research?

The findings from both our national analysis and our more focused look at New York City neighborhoods provide strong evidence that the racial composition of where a borrower lives influences what kind of loan the borrower ends up with. That finding has several implications for public policy and for future research.
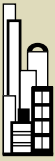
Make Better Data Available
If higher proportions of black and Hispanic homebuyers obtained subprime loans because of differential treatment in the underwriting or marketing of mortgages—rather than because their credit

scores or other individual characteristics posed greater credit risks—then black and Hispanic communities were paying more for their loans for troubling, and possibly even illegal reasons. Unfortunately, critical information about the creditworthiness of individual borrowers, such as wealth or credit scores, are not publicly available from the regulatory agencies; lenders are under no obligation to provide the data to researchers; and the companies that collect such information generally make it prohibitively expensive for researchers and impose restrictions on the use of the data that researchers find unacceptable. The race gap is sufficiently large and worrisome, however, that those who claim the racial disparities are primarily explained by individual characteristics should have the burden of either proving that claim or making data about individual characteristics available so that more independent researchers can better evaluate the causes of the disparity.

In order for policymakers to more fully understand the relationship between race, neighborhoods and loan type, the federal and state governments must find ways to improve the data available to independent researchers. Efforts to enforce fair housing and fair lending legislation will continue to be hindered unless researchers are able to access and analyze the essential data necessary to identify patterns.

Better Understand Mortgage Channels & Financial Literacy
While our research reveals troubling trends, it also shows that there is much that we don't know. We know very little, for example, about how borrowers shop for loan products. As a result, we can't assess the extent to which the racial disparities that we report result from differences in those search processes. If certain racial or ethnic groups disproportionately rely on mortgage brokers (or certain groups of mortgages brokers), for example, that may affect the way they shop

for loans or the kinds of loans they obtain. In addition, if certain racial or ethnic groups tend to have better financial literacy skills or better access to consumer education, that may affect the kinds of loans they obtain. We need to know more about how people—particularly people of color—make borrowing decisions, before we can address inequities in borrowing outcomes. More research about the various channels though which people obtain mortgages is vital.

Improve Enforcement of Fair Lending and Fair Housing Laws

Racial disparities in subprime lending and our findings that residential segregation and neighborhood demographics correlate with higher rates of subprime loans are not proof that some in the mortgage industry have discriminated on the basis of race or ethnicity. They do, however, raise questions about the possibility of discrimination that the regulatory agencies should seek to answer. The regulatory agencies responsible for identifying and penalizing lenders that engage in discriminatory practices—namely HUD's Office of Fair Housing and Equal Opportunity, the Department of Justice

and federal and state banking regulators—accordingly should enhance their efforts to monitor discriminatory practices.

Combat Segregation

Our research finds a strong correlation between racial segregation and the likelihood that minority borrowers will obtain subprime loans—nationally and in New York City. This finding is consistent with a growing number of other studies that demonstrate that racial residential segregation can lead to negative outcomes for minority residents. Local and federal governments accordingly must take strong measures to combat residential segregation. Strategies for reducing racial segregation in communities could take many forms, including: better enforcement of fair housing laws; providing incentives for subsidized or rental housing in higher-income neighborhoods; and encouraging metropolitan areas with entrenched racial segregation to develop specific plans for desegregation.

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THE FURMAN CENTER FOR REAL ESTATE AND URBAN POLICY is a joint research center of the New York University School of Law and the Robert F. Wagner Graduate School of Public Service. Since its founding in 1995, the Furman Center has become a leading academic research center dedicated to providing objective academic and empirical research on the legal and public policy issues involving land use, real estate, housing and urban affairs in the United States, with a particular focus on New York City. More information about the Furman Center can be found at www.furmancenter.org