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Abstract:

In this brief, we provide an overview of patterns of subprime lending, as well as trends in foreclosures and REOs, in suburban communities compared to inner-cities. We also explore the relationship between foreclosures in suburban areas and the increased suburbanization of poverty. We find that the vast majority of foreclosures—nearly three out of four (73.1 percent)—have been in suburban areas, and that suburban neighborhoods with higher rates of poverty are more likely to experience higher foreclosure rates. This is of concern because the mechanisms for addressing the challenges associated with concentrated foreclosures can be more difficult to implement in suburban areas; suburbs may have smaller local governments, fewer nonprofits, and a more dispersed urban form, making it difficult for cities or nonprofits to administer programs or for residents to access them. Because the distribution of foreclosed homes has significant implications for the long-term stability of suburban neighborhoods, increased resources and attention should be devoted to developing foreclosure responses that take into account the capacity and access challenges that are unique to suburban neighborhoods.

The views expressed herein are those of its authors and do not necessarily reflect those of the Federal Reserve Bank of San Francisco or the Federal Reserve System.

The Subprime Crisis in Suburbia: Exploring the Links Between Foreclosures and Suburban Poverty

Chris Schildt, Naomi Cytron, Elizabeth Kneebone, and Carolina Reid¹

Introduction

Between September 2008 and September 2012, approximately 3.9 million households lost their homes to foreclosure, with far-reaching negative consequences for families, neighborhoods, and local governments.² Of particular concern to policy-makers are neighborhoods that are struggling with concentrated foreclosures and large numbers of properties owned by banks – also known as REOs (real estate owned). These properties, coupled with homes that are left vacant or abandoned after foreclosure, are thought to impose severe spillover effects on nearby property values and the quality of life in surrounding neighborhoods. As a result, since 2008, the federal government has allocated approximately \$7 billion through the Neighborhood Stabilization Program to address problems posed by concentrations of foreclosures, and local and state governments as well as nonprofits have been developing innovative strategies to redevelop foreclosed homes into affordable housing.

However, most strategies for addressing foreclosures and vacant buildings have been developed based on the experiences of inner-city neighborhoods with older housing stock. While the core areas in cities like Cleveland and Detroit have come to epitomize the foreclosure crisis, suburban neighborhoods around these cities have also experienced historically high foreclosure rates. Indeed, in states hard hit by the crisis, including Arizona, California, Florida and Nevada, suburban and exurban communities have been disproportionately affected by foreclosures and REOs. The concentration of foreclosures in suburban communities poses a unique challenge, since these areas often have less well-established community development infrastructure and receive fewer philanthropic resources. As a result, local governments and nonprofits may have less capacity to respond to the destabilizing effects of large numbers of vacant homes.³

In this brief, we provide an overview of patterns of subprime lending, as well as trends in foreclosures and REOs, in suburban communities compared to inner-cities. We also explore the relationship between foreclosures in suburban areas and the increased suburbanization of poverty. We focus on data for the 100 largest metropolitan areas. We find that suburban communities have experienced nearly three times as many foreclosures as have inner cities, and that suburban neighborhoods with higher rates of poverty are more likely to experience higher foreclosure rates. While these trends in part reflect patterns of metropolitan growth and the larger number of housing units and population in suburban areas (indeed, foreclosure *rates* in the suburbs are slightly lower than in the inner-cities), they nevertheless suggest that policies and programs designed to respond to the foreclosure crisis need to take into account the conditions specific to suburban communities, in particular suburban neighborhoods with high poverty rates.

Data and Methods

In this brief, we present an analysis of suburban patterns of foreclosures and subprime lending data from two different sources. First, to help us understand the incidence of subprime lending during the housing market boom, we use data from the Home Mortgage Disclosure Act from 2004 to 2008 to examine patterns of higher-priced

1 The authors would also like to thank Jane Williams of the Brookings Institution for excellent research assistance on this project.

2 CoreLogic National Foreclosure Report, October 2012. Available online at <http://multivu.prnewswire.com/mnr/corelogic/56990/>.

3 Daniel Immergluck (2008). "The Accumulation of Foreclosed Properties: Trajectories of Metropolitan REO Inventories during the 2007–2008 Mortgage Crisis." Community Affairs Discussion Paper No. 02-08, Federal Reserve Bank of Atlanta. Carolina Reid (2010). "Shuttered Subdivisions: REOs and the Challenges of Neighborhood Stabilization in Suburban Cities," in *REO & Vacant Properties: Strategies for Neighborhood Stabilization*, a Joint Publication of the Federal Reserve Banks of Boston and Cleveland and the Board of Governors.

lending in suburban neighborhoods compared to inner cities. These data are available by borrower income and race/ethnicity, allowing us to see not only where subprime lending was concentrated, but also describe who was at a higher risk of receiving subprime loans. We limit our analysis to first lien, owner-occupied mortgages in 1-4 unit buildings, originated between 2004 and 2008.

Second, we use data on loan performance from a national proprietary dataset on loan performance to document the number and percent of foreclosures at the suburban, inner-city, and metropolitan scale. We limit our analysis to first lien, owner-occupied mortgages in 1-4 unit buildings, originated between 2004 and 2008, with performance (e.g. delinquency and foreclosure) measured through February 2012. We include both purchase and refinance mortgages. These data, available at the zip code level, were aligned with tract level data from the US census, allowing us to designate whether or not a loan was located in an inner-city or suburban tract.⁴ Aligning the data to census tracts also allows us to compare foreclosure rates in tracts with different levels of poverty. Because the loan-level data do not cover the entire outstanding mortgage market, we scaled up the number of loans to reflect the total volume of both prime and subprime mortgages recorded in the HMDA data.⁵ As a result, it is important to note that the numbers in this brief are estimates and may not reflect the actual performance of all mortgages. However, due to the lack of a national, comprehensive data set on foreclosures, we believe that these estimates provide an important first look at suburban and inner-city differences in loan delinquencies and foreclosures across metropolitan areas.

Finally, there are many ways to categorize census tracts into either “city” or “suburban” classifications. In this brief, cities (also referred to as “inner cities”) are defined as the primary cities of the top 100 metropolitan areas, either because they 1) appear first in the official metropolitan area name, or 2) are listed second or third in the official name and contain a population of at least 100,000. “Suburbs” represent the remainder of the MSA outside the primary city or cities.

The Distribution of Subprime Lending in Cities and Suburbs

In the first section of this brief, we explore patterns of subprime lending in cities and the suburbs. Originally, subprime lending referred to loans originated to borrowers with lower credit scores, and represented a means to expand access to homeownership. The risks associated with lending to “subprime” borrowers were offset by charging a higher interest rate for the loan. As former Federal Reserve Chairman Alan Greenspan noted in 2005, “where once marginal applicants would have simply been denied credit, lenders are now able to quite efficiently judge the risk posed by individuals and price that risk appropriately.”⁶ This shift towards risk based pricing was accompanied by the rise of subprime mortgage lenders that specialized in subprime products. Subprime lenders accounted for a large portion of the growth in home purchase financing for low-income and minority borrowers during the mid-1990s.

As house prices began to climb in the early 2000s, however, the term subprime increasingly became a moniker for a much wider range of nontraditional or alternative mortgage products, including interest-only loans, option ARMs, and loans that coupled extended amortization with balloon-payment requirements. In 2004, these new mortgage products accounted for 12.5 percent of loan originations; by 2006, this segment had increased to 32.1 percent.⁷ In addition, nonprofits and other local community groups increasingly raised concerns that lenders were disproportionately targeting lower-income and minority communities with subprime loans. In 2004, HMDA started including information about the pricing of loans; these data showed that African Americans and Latinos

4 Census tracts with fewer than 100 loans were deleted from the analysis.

5 For example, if the loan performance data in a census tract included 100 subprime and 80 prime loans originated between 2004 and 2008, but the HMDA data showed that there were 120 subprime and 95 prime loans in that census tract over that time period, we weighted the loan performance data to reflect the total number of originations in the tract over that time period taking into account the relative distribution of prime and subprime loans.

6 Alan Greenspan (2005). “Consumer Finance,” Remarks presented at the Federal Reserve System’s Fourth Annual Community Affairs Research Conference, Washington, D.C., April 8, 2005. Available online at <http://www.federalreserve.gov/boarddocs/speeches/2005/20050408/default.htm>.

7 Chambers, M., C. Garriga, and D. Schlagenhauf (2008). “Mortgage Innovation, Mortgage Choice, and Housing Decisions,” Federal Reserve Bank of St. Louis Review 90(6): 585-608.

were more likely to receive a higher-priced/subprime loan.⁸ Subsequent research has shown that African-American and Latino borrowers do pay more for credit even after controlling for observable borrower characteristics such as differences in credit scores or income.⁹

Researchers have also identified important spatial variation in the distribution of higher-priced lending. First, loans originated in older, inner-city neighborhoods – particularly those with high percentages of low-income and minority residents – were more likely to be subprime or higher-priced than loans originated in higher-income neighborhoods. Second – and distinct from past concerns about disparities in mortgage lending—subprime lending was prevalent in fast-growing metropolitan areas in states such as Nevada, Arizona, California and Florida, especially in suburban and exurban communities that were experiencing high levels of new construction.¹⁰

Building on this research, our analysis of HMDA data between 2004 and 2008 shows the degree to which the United States is a suburban nation – nearly 76 percent of all mortgage lending over this time period occurred in suburban areas. (Table 1) The data also show that while white and higher-income households are more likely to purchase homes in suburban areas, the suburbs are now home to a racially and socio-economically diverse range of families. Nearly 30 percent of families who bought or refinanced a home in the suburbs between 2004 and 2008 were low- or moderate-income, earning less than 80 percent of the area median income. In addition, 7.8 percent of borrowers in suburban areas were African-American, 10.6 percent were Latino, and 5.4 percent were Asian. While these groups were still more likely to buy homes in central cities, as with mortgage lending overall, nearly seventy percent of all lending to minority borrowers during this time period occurred in suburban rather than urban communities.

Table 1: Distribution of Subprime Lending, 100 Largest Metropolitan Areas, 2004 -2008 Originations

	Metro	City	Suburb	% in Suburbs
Total Loans	31,293,003	7,527,425	23,765,578	75.9
Borrower Income				
Low Income (Less than 50% AMI)	3,559,189	956,363 12.7	2,602,826 11.0	73.1
Moderate Income (Between 50 - 80% AMI)	5,942,818	1,517,596 20.2	4,425,222 18.6	74.5
Middle Income (Between 80 and 120% AMI)	8,154,500	1,859,815 24.7	6,294,685 26.5	77.2
Upper Income (Above 120% AMI)	13,643,828	3,195,395 42.5	10,448,433 44.0	76.6
Borrower Race				
White	18,260,824	3,738,770 49.7	14,522,054 61.1	79.5
African American	2,830,055	979,676 13.0	1,850,379 7.8	65.4
Latino	3,656,643	1,129,227 15.0	2,527,416 10.6	69.1
Asian	1,794,661	517,576 6.9	1,277,085 5.4	71.2
Total Higher Priced Loans	5,809,198	1,585,259 21.1	4,223,939 17.8	72.7

Source: Home Mortgage Disclosure Act Data (HMDA), 2004 -2008 LAR Data Files.

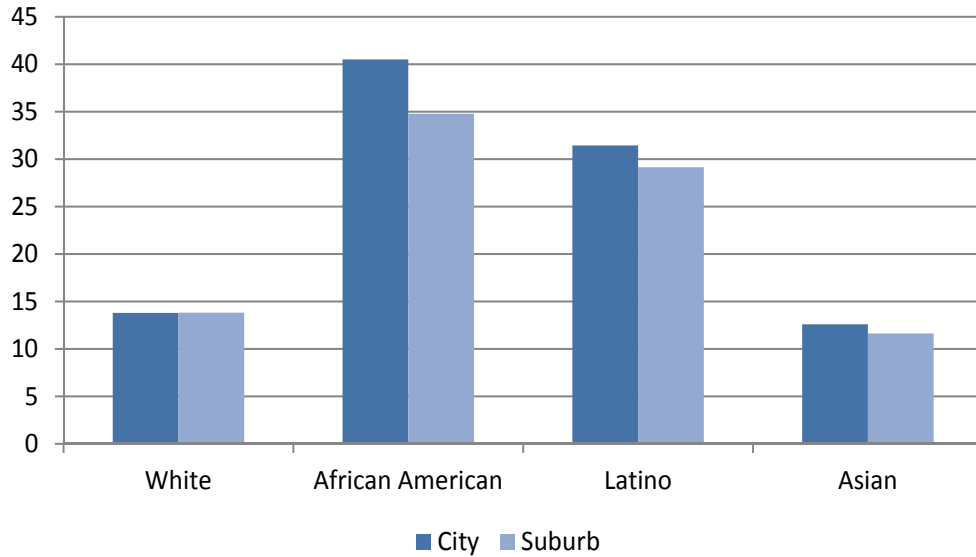
8 Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner (2006). "Higher-Priced Home Lending and the 2005 HMDA Data," Federal Reserve Bulletin, September 2006: A123 - A166.

9 See, for example, Courchane, M. (2007). "The Pricing of Home Mortgage Loans for Minority Borrowers: How Much of the APR Differential Can We Explain?" Journal of Real Estate Research 29(4): 399-439.

10 Calem, P., K. Gillen, and S. Wachter (2004). "The Neighborhood Distribution of Subprime Mortgage Lending," Journal of Real Estate Finance and Economics 29(4): 393-410. Mayer, Christopher and Karen Pence. 2009. "Subprime mortgages: what, where, and to whom?" In *Housing markets and the economy: risk, regulation, and policy: essays in honor of Karl E. Case* (Lincoln Land Institute, Cambridge, MA), ed. by Edward Glaeser and John Quigley.

In addition, while the rates of subprime lending were slightly higher in cities than in suburbs (21.1 percent versus 17.8 percent), 72.7 percent of all subprime loans were made in the suburbs. Even in suburban areas, African American and Latino borrowers were much more likely to get a subprime or higher-priced loan. (Figure 1) Nearly 35 percent of African American households and 29.1 percent of Latino households buying in the suburbs received a higher-priced loan, compared with 13.8 percent of White households and 11.6 percent of Asian households. Interestingly, while there was no difference in higher-priced lending among White households in the suburbs versus city locales, the incidence of higher-priced lending among minority borrowers was higher in cities than in suburbs.

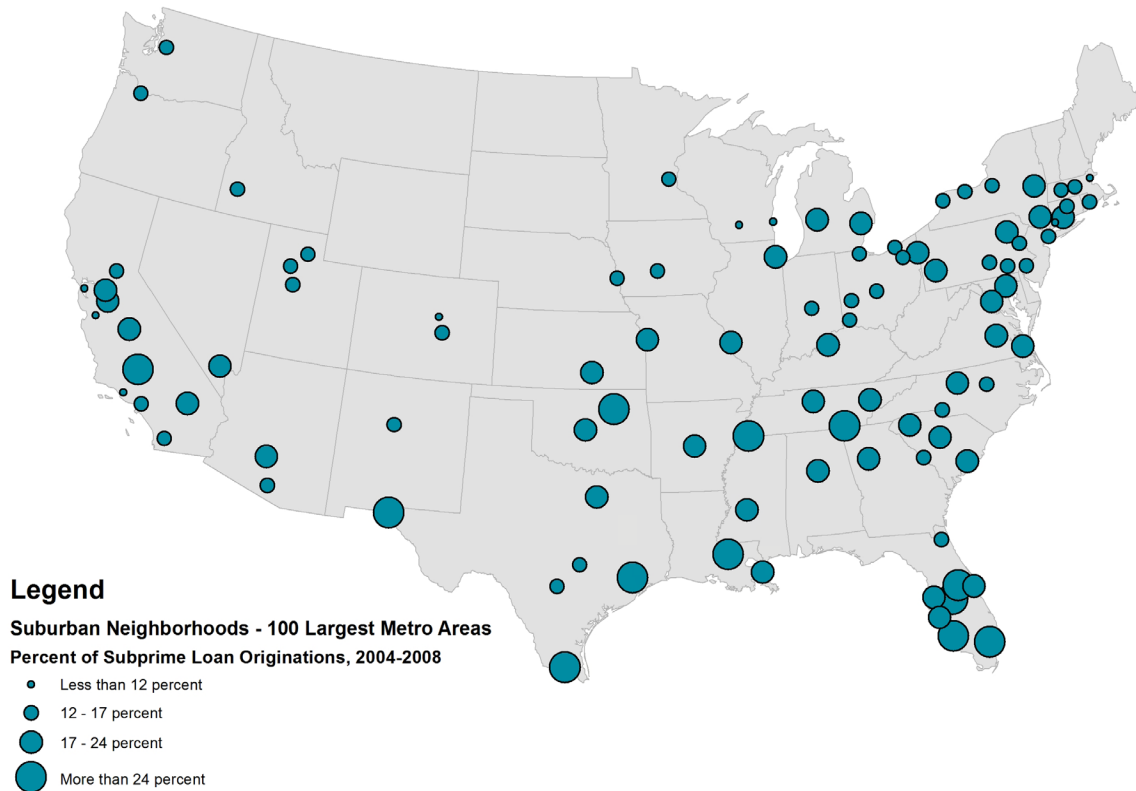
Figure 1: Distribution of Subprime Lending by Race/Ethnicity, 100 Largest Metropolitan Areas, 2004-2008 Originations



Source: Home Mortgage Disclosure Act Data (HMDA), 2004 -2008 LAR Data Files.

While there were regional differences in the distribution of subprime lending, Figure 2 shows that suburban neighborhoods across the country saw high rates of subprime lending. Not surprisingly, we find very high rates of subprime lending in suburban neighborhoods in California and Florida, as well as along the border of Texas. But even in Chicago, Detroit and metropolitan areas in Tennessee and Oklahoma, more than one in four loans originated in suburban neighborhoods between 2004 and 2008 were subprime. Interestingly, although high cost real estate markets like Seattle, San Francisco, and Washington, DC saw relatively low rates of subprime lending compared to other US areas, rates of subprime lending were actually higher in the suburbs than in the city. While more research is needed to understand these patterns, it is possible that the high costs of housing in the city pushed lower-income families – especially immigrants and other people of color – to more distant neighborhoods where they could find more affordable homes. For example, in Washington DC, subprime lending rates were 6 percentage points higher in suburban areas (17 percent) than in the city (11 percent).

**Figure 2: Subprime Lending in Suburban Neighborhoods
100 Largest Metropolitan Areas, 2004 – 2008 Originations**



Source: Home Mortgage Disclosure Act Data (HMDA), 2004 -2008 LAR Data Files.

The Distribution of Foreclosures in the Cities and Suburbs

Given the strong relationship between subprime lending and foreclosures, it is not surprising that we find similar patterns in the foreclosure data as we do for the mortgage lending data. Overall, we find that within metropolitan areas, inner-city neighborhoods have experienced higher foreclosure rates than suburban areas, although the total number of foreclosures is significantly higher in suburban areas. As of February 2012, 8.9 percent of loans in inner cities had ended in foreclosure, compared to 7.6 percent in suburban areas. (Table 2) However, suburban areas had a slightly higher proportion of loans that were more than 60 days delinquent or in the foreclosure process – 7.7% compared with 7.6% in inner-city areas. This may in part be due to the large number of delinquent loans in Florida, where delinquencies are particularly high in suburban areas and the judicial review foreclosure process has meant that properties spend longer in the foreclosure pipeline. However, the data also show that the vast majority of foreclosures –nearly three out of four (73.1 percent)—have been in suburban areas, amounting to an estimated 1.8 million completed foreclosures and another 1.84 million at least 60 days delinquent or in the foreclosure process.

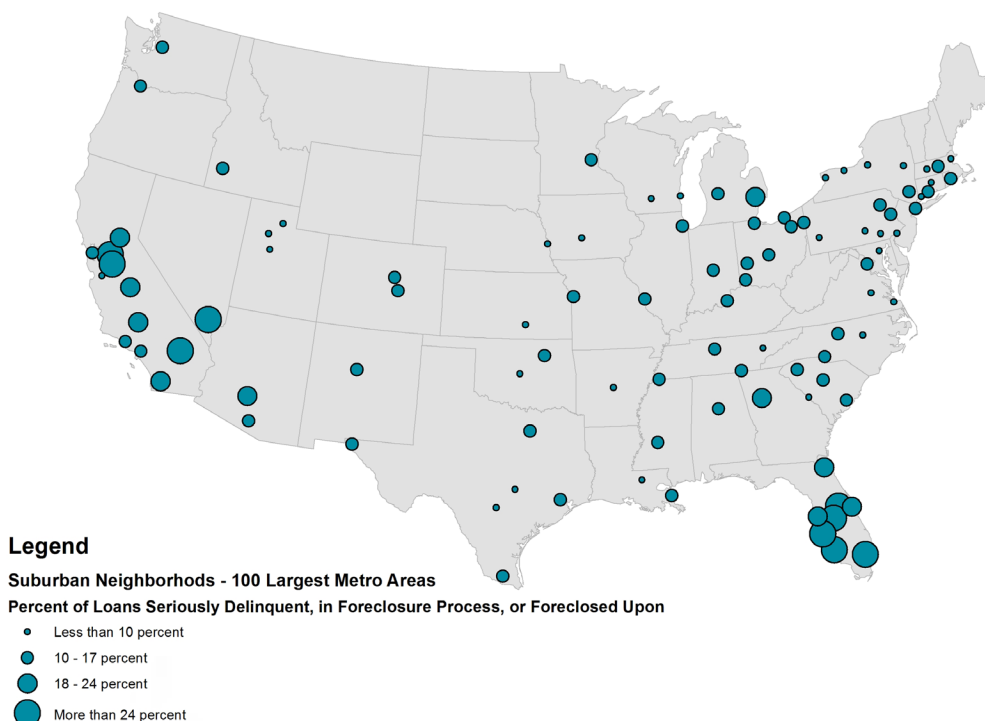
Table 2: Foreclosures in Largest 100 Metro Areas, by City/Suburb Designation

	Total Loans	Seriously Delinquent (60+ days delinquent)		In Foreclosure Process		Foreclosed Upon	
		Number	Percent	Number	Percent	Number	Percent
Metro	31,293,003	1,234,047	3.9	1,182,475	3.8	2,482,763	7.9
City	7,527,425	301,192	4.0	270,552	3.6	668,141	8.9
Suburb	23,765,578	932,855	3.9	911,923	3.8	1,814,622	7.6
% In Suburbs	75.9%	75.6%		77.1%		73.1%	

Note: Foreclosed upon refers to loans that have transferred to real estate owned (REO) or were sold at a loss. The foreclosure rate is calculated as the percent of loans in the foreclosure process or that have been foreclosed upon. Data on delinquencies and foreclosures come from a national proprietary dataset on loan performance.

Although the national statistics show only small differences in the foreclosure rates between cities and suburbs, the distribution of foreclosures varies significantly within different metropolitan areas. For example, Detroit’s city foreclosure rate (42.7%) is more than twice as high as its suburban rate (16.0%). Conversely, in cities such as Austin, Washington DC, and Albuquerque, the foreclosure rate in suburban areas is significantly higher than in the city. Figure 3 presents a map of suburban foreclosure rates for the 100 largest metro areas. While no major metropolitan area proved immune to foreclosures in the wake of the downturn, some suburbs suffered much more in the aftermath of the housing market’s collapse. By 2012, 30 percent of mortgages in suburban Cape Coral, Florida were foreclosed or in foreclosure, with another 5 percent seriously delinquent and at risk of default. Rates were also high in other Sun Belt suburban areas like Las Vegas, Miami, Modesto, and Stockton, each of which had foreclosure rates of roughly 25 percent, with another 5 to 6 percent of mortgages seriously delinquent.

**Figure 3: Delinquencies and Foreclosures in Suburban Neighborhoods
100 Largest Metropolitan Areas, 2004 – 2008 Originations**



Source: Federal Reserve analysis of data from a national proprietary dataset on loan performance.

The Relationship between Foreclosures and the Suburbanization of Poverty

The preceding analysis raises the question of how foreclosures interact with the changing nature of poverty in the suburbs. The 2000s marked a turning point in the geography of American poverty, as suburbs in the nation’s largest metro areas became home to more poor residents than central cities for the first time. The suburban poor population grew by more than half over the course of the decade (53 percent), compared to an increase of 23 percent in cities. As a result, by 2010 large suburbs were home to 2.6 million more poor than their primary cities and housed one-third of the nation’s poor population—outranking cities (27.5 percent), small metro areas (20.5 percent), and non-metropolitan communities (18.7 percent). While poverty rates remain higher in cities than in suburbs—20.9 percent versus 11.4 percent—city and suburban poverty rates rose by nearly equal degrees between 2000 and 2010 (3.0 and 2.9 percentage points, respectively).¹¹

Table 3: Distribution of Subprime Loans and Foreclosures by Levels of Neighborhood Poverty, City v. Suburb

	Total Loans	% Subprime	% Foreclosed or In Foreclosure	% Seriously Delinquent
Metro	31,293,003	18.56	11.71	3.94
High Poverty Neighborhoods	3,129,673	33.18	18.08	5.46
Low Poverty Neighborhoods	28,163,330	16.94	11.01	3.78
City	7,527,425	21.06	12.47	4.00
High Poverty Neighborhoods	1,714,547	33.71	17.88	5.36
Low Poverty Neighborhoods	5,812,878	17.33	10.88	3.60
Suburbs	23,765,578	17.77	11.47	3.93
High Poverty Neighborhoods	1,415,126	32.54	18.32	5.57
Low Poverty Neighborhoods	22,350,452	16.84	11.04	3.82

Note: High poverty neighborhoods are defined as areas where at least 20 percent of households are living at or below the federal poverty line. Federal Reserve analysis of data from a national proprietary dataset on loan performance, 2004-2008 originations.

Table 3 shows the percent of subprime loans and delinquencies and defaults in city v. suburban neighborhoods, broken down further by poverty level. Here, high poverty neighborhoods are defined as areas where at least 20 percent of households are living at or below the federal poverty line. The table shows the importance of differentiating among suburban neighborhoods – while only 16.8 percent of loans in low-poverty suburban neighborhoods were subprime, in high poverty suburban neighborhoods, subprime lending rates were more than 32 percent. Correspondingly, high poverty suburban neighborhoods have a foreclosure rate of 18.3 percent, compared to 11 percent in low-poverty neighborhoods. Interestingly, the foreclosure rate is slightly higher in high poverty suburban neighborhoods than in high poverty urban neighborhoods (17.9 percent). Of all home foreclosures in high poverty neighborhoods throughout metro areas, nearly half (45.8 percent) have been in suburban areas.

We also find that increases in poverty since 2007 have a strong correlation with foreclosure in the suburbs. For metro areas that experienced a significant increase in suburban poverty between 2007 and 2010, there is a 0.68 correlation with foreclosures. More research is clearly needed to understand the dynamics of housing and poverty in suburban areas.

¹¹ For details on the suburbanization of poverty, visit <http://www.theatlanticcities.com/jobs-and-economy/2011/09/rapid-growth-suburban-poor/190/>.

Conclusion

The distribution of foreclosed homes has important implications for the long-term stability of suburban neighborhoods. While we do not find significant disparities in the incidence of subprime lending and the rates of foreclosures between suburban and city neighborhoods, it is important to note that overall, the vast majority of foreclosures have happened in suburban places. This is of concern because the mechanisms for addressing the challenges associated with concentrated foreclosures can be more difficult to implement in suburban areas; suburbs may have smaller local governments, fewer nonprofits, and a more dispersed urban form, making it difficult for cities or nonprofits to administer programs or for residents to access them. Despite these conditions, less attention and fewer resources seem to be focused on addressing the challenges specific to suburban areas and the ways that foreclosure crisis and response play out differently across a metro area. Going forward, policy and programmatic responses should take these differences into account.

Encouragingly, some jurisdictions are beginning to tailor response strategies to be sensitive to some of these issues. In Chicago, municipal leaders are beginning to recognize the unique challenges facing foreclosure disposition in the region, and have developed models of inter-jurisdictional collaboration to respond to the crisis. For example, in Chicago's suburbs, 19 communities in South Cook County and 5 West Cook County municipalities formed collaboratives to jointly apply for Neighborhood Stabilization Program dollars in 2009. Together, they secured over \$12 million in funding to address vacant properties and connect the strategy to efforts to link affordable housing to transit.¹² The two collaboratives have gone on to attract an additional \$17 million in support from sources including the CDBG Disaster Recovery Program and the Sustainable Communities Initiative.

Finally, in developing foreclosure response strategies that are specifically oriented to suburban conditions, it is also important to recognize that suburbs themselves are not a homogenous category. Significant differences exist between suburban places that could greatly impact their ability to respond to and recover from foreclosures.

As the research in this brief shows, the foreclosure crisis has hit higher poverty suburban neighborhoods much harder than lower-poverty neighborhoods. Coupled with higher unemployment rates and low access to transit, these neighborhoods may suffer significant decline. Thinking strategically about what "community development" should look like in areas outside of central cities, and developing interventions that address the capacity and access challenges unique to suburban neighborhoods, could help stabilize these areas for families and children and contribute to future growth and opportunity across metropolitan areas.

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¹² Susan Longworth (2011). "Suburban Housing Collaboratives: A Case for Interjurisdictional Collaboration," Profitwise News and Views (Federal Reserve Bank of Chicago).