



**FURMAN CENTER**  
FOR REAL ESTATE & URBAN POLICY  
NEW YORK UNIVERSITY  
SCHOOL OF LAW • WAGNER SCHOOL OF PUBLIC SERVICE

# The Foreclosure Crisis and Community Development: Exploring REO Dynamics in Hard-Hit Neighborhoods

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**Ingrid Gould Ellen  
Josiah Madar  
Mary Weselcouch**

**Furman Center for Real Estate and Urban Policy and Wagner School  
New York University**

## Abstract

As the foreclosure crisis continues, many communities are faced with a glut of properties that have completed the foreclosure process and are now owned by banks or other mortgage lenders. These properties, referred to as “real estate owned (REO),” often sit vacant for extended periods and, recent studies suggest, depress neighboring property values. They also impose significant costs on local governments, which must try to address the risk of crime, fire, and blight that vacant buildings pose. In addition, many worry that REO properties sold to unscrupulous short-term investors hasten neighborhood decline.

In this article we shed new light on the “REO problem” by studying the stock of REO properties at the neighborhood level in three urban areas: Fulton County, Georgia (which includes Atlanta), Miami-Dade County, Florida, and New York City. Using a combination of longitudinal administrative data sets on foreclosure filings, auction sales, and property transactions provided by local government sources, we identify every property transfer into REO ownership in recent years and all subsequent transfers of these properties. To explore the ongoing neighborhood and community development challenges, we divide census tracts into four groups based on their concentrations of REO properties as of the end of 2011. We then compare these neighborhood types across several dimensions. Because we use a uniform methodology for all three areas, we are also able to compare neighborhood groups across jurisdictions with the metrics we calculate.

We find several neighborhoods in Fulton County and Miami-Dade County with extremely high concentrations of REO properties as of the end of 2011, including some tracts with more than 100 REO properties. In New York City, however, REO concentrations are generally much lower, and no census tract had more than 12 REO properties. In all three jurisdictions, the neighborhoods with relatively high concentrations of REO properties are generally not the most distressed areas of their regions in terms of poverty and unemployment, but are still high-poverty and potentially vulnerable. Moreover, they are disproportionately black, highlighting the uneven impact the foreclosure crisis may be having on communities. Importantly, we find that the number of REO properties in the hardest-hit neighborhoods of each area was declining as of the end of 2012 (or 2011, our latest year of data in Miami-Dade County), generally in line with the countywide or citywide trend in REO inventories, and that investors did not account for an appreciably higher proportion of purchasers of REO properties in the hardest-hit neighborhoods. Furthermore, few of the properties that were purchased by investors appear to have been “flipped” within a short period. On the other hand, we also find that those REO properties that remained in these cities as of the end of 2012 or 2011 (including those in hard-hit neighborhoods) had been in REO for a longer duration than was typical one year earlier, so the composition of the REO stock may be shifting towards more problematic properties. Additionally, in Fulton County’s hardest-hit tracts REO properties made up about 40 percent of all sales in 2012, so were likely still exerting significant downward pressure on housing prices. Finally while the National Stabilization Program (NSP) may be improving neighborhoods in other ways, we find that only a negligible share of the REO sales in the hardest-hit tracts of Fulton and Miami-Dade Counties in 2010 and 2011 were to non-profit entities and developers using NSP funds.

## Introduction

Since the onset of the foreclosure crisis, many communities have faced a glut of properties that have completed the foreclosure process and are now owned by banks or other mortgage lenders. Policymakers worry that large concentrations of these properties, referred to as ‘real estate owned’ or ‘REO,’ impose severe spillover effects on the price of homes and the quality of life in the surrounding neighborhood.

In response to the threats that REO stocks are believed to pose, governments at all levels have launched or proposed policies targeting these properties. The federal government has already spent or allocated almost \$7 billion on the Neighborhood Stabilization Program, which provides money to local governments and non-profits to address REO and other vacant properties. Local governments have also created land banks, established vacant property registries, beefed up code enforcement, and even hauled bank officials into court in an effort to promote better management of these properties. Most recently, the federal government has launched a pilot program to convert portions of its own REO stock into rental housing.

Despite the policy attention REO properties have received, our understanding of the size, nature, and distribution of current REO stocks, as well as what becomes of properties after being sold, is extremely limited or anecdotal. There is no national source of public data that monitors or describes REO properties, so policymakers are left with limited information about the characteristics, and even the size, of this lender-controlled stock. While some useful research surely exists, most of it focuses only on a narrow aspect of the issue, looks at relatively high levels of geography that gloss over possible differences between neighborhoods, or provides a snapshot only of a single point in time, failing to consider the longer-term trajectory of REO properties after they sell. Moreover, much of the existing research was conducted at earlier stages of the foreclosure crisis and is thus of limited use in addressing current challenges. In short, there is little reliable information to indicate whether neighborhoods hit particularly hard by the foreclosure crisis still face daunting community development challenges as a result of a flood of REO properties or if gradual housing market improvement, recent policy interventions, and progress working through the foreclosure pipeline have already set these neighborhoods on a course towards sustainable recovery.

Our paper shines some new empirical light on the REO problem in hard-hit neighborhoods by analyzing REO trends through the end of 2011 at the neighborhood level in three cities with very different market conditions: Atlanta (and specifically Fulton County, the central county in the Atlanta metropolitan area), Miami (or Dade County, the central county in the Miami metropolitan area) and New York City. We undertake our analysis using a combination of longitudinal administrative data sets on foreclosure filings, auction sales, and property transactions. For each city, we use these data to identify the neighborhoods with the highest concentrations of REO properties as of the end of 2011. We describe the characteristics of these neighborhoods and explore whether the dynamics of their REO stocks set them apart in less obvious ways as well, such as the length of time those properties have been bank-owned and the share of all property sales made up of REOs. We also examine the buyers of REO properties in

different neighborhood types— and estimate the share of properties bought by individuals, small and large investors, and non-profits or developers financed through the Neighborhood Stabilization Program. Finally, we follow properties after they leave REO stocks to determine how quickly investors are reselling properties, with an eye towards exploring implications for the neighborhoods.

Our paper proceeds as follows. First we provide basic background on the legal process that results in lender-owned properties, describe the community development problems associated with REO properties, and summarize the range of policy responses implemented and proposed to date. Next we review other recent research that focuses on the accumulation of REO properties. We then present our own empirical analysis of REO properties in hard-hit neighborhoods in Fulton County, Georgia, New York City, and Miami-Dade County, Florida. We conclude by analyzing the implications of our analysis for crafting policies to address the ‘REO problem.’

### **Background on the Foreclosure Process and REO Properties**

Although the specific legal process and timeline differ across states, most foreclosures generally follow a similar course. Mortgage-holders (i.e., lenders, securitization trustees, or servicers acting on their behalf) issue a foreclosure notice to borrowers after they have missed a specified number of mortgage payments. If a homeowner in foreclosure is unable to sell her property or halt a foreclosure proceeding through paying arrears or negotiating a loan modification or other agreement, the foreclosure will result in a public auction of the home. In states with a ‘judicial’ foreclosure process (including Florida and New York), which is conducted through the courts, the time between the initial foreclosure filing and the auction can last for several months or even years. In states with a ‘non-judicial’ process (including Georgia), which occurs outside of the court system, the time from foreclosure notice to auction is generally much shorter.

The party that makes the highest bid wins the foreclosure auction and takes title to the property, provided that the bid exceeds the mortgage-holder’s reserve price (typically equal to the unpaid balance on the mortgage plus accrued interest and fees). If no third party places a bid higher than the reserve price, the mortgage-holder itself wins the auction and the property becomes, or enters, REO.

For mortgages held in bank portfolios, the bank itself acquires title to REO properties. The situation is more complicated for most mortgages, however. Most subprime loans and many prime loans were privately securitized, so the mortgage-holder is typically a large bank acting as a trustee on behalf of a securitization pool. In these cases, the bank holds legal title to REO properties in name only, but beneficial ownership of the properties is held by the investors who own the mortgage-backed securities. Management of the REO properties is likely conducted by the servicer under the contractual requirements set up when the securitization pool was established. Most prime mortgages, in contrast, are securitized but also guaranteed by Fannie Mae or Freddie Mac (known as ‘government sponsored enterprises’ or ‘GSEs’). Pursuant to their guarantee, the GSEs acquire non-performing loans from their securitization pools, so for these mortgages, it is the GSE that is both the legal and beneficial owner of any resulting REO properties. Similarly, for mortgages that were insured by the Federal Housing Administration or Veterans Administration, it is the U.S. Department of Housing and Urban Development (HUD)

that takes title to any properties that complete the foreclosure process without a winning, third party bid.

Although foreclosure auctions are the path into bank ownership for most REO properties, a relatively small number of homes enter REO stocks through so-called ‘deed-in-lieu’ transactions. In these cases, a homeowner willingly conveys the property to the lender prior to the foreclosure auction. The lender is able to acquire title to the property more quickly and in exchange, the distressed borrower may receive a modest cash payment or have the debt extinguished.

Once a lender, GSE, or government agency takes title to an REO property, it will typically assess the property’s condition and current value, contract with a ‘field services’ company for property management, and work with local brokers to sell the property through conventional channels. Foreclosed properties are often vacant at the time they are auctioned (Whitaker, 2011). If not, the REO owner can initiate eviction proceedings soon after taking title.<sup>1</sup> Some of the concern about REO properties stems from fears that the buyers purchasing properties out of REO are simply looking to flip properties and have little incentive to invest in maintenance and upkeep.

### **Addressing the ‘REO Problem’**

Local and federal policymakers have focused on REO properties in part out of concern that the glut of REO properties is depressing the overall housing market but also out of concern about the stability of neighborhoods hit particularly hard by the foreclosure crisis. REO properties are tied to neighborhood stability in multiple ways. Several recent studies have found that foreclosures (measured, depending on the study, by foreclosure filings, auction sales, or REO status of properties) have significant negative effects on the sales prices of nearby homes (e.g., Schuetz, Been and Ellen, 2008, Harding, Rosenblatt, and Yao, 2009, Campbell, Giglio and Pathak, 2011, Gerardi et al., 2012). A likely mechanism for these effects is the poor physical condition of many properties that spend time in the foreclosure process (Gerardi et al., 2012). These homes often suffer from deferred maintenance during the homeowner’s financial distress before and during the foreclosure process, and significant condition problems are unlikely to be remedied while a home is in lender ownership. Poor REO management itself may result in outward signs of distress, such as an un-mowed lawn, accumulated trash, or peeling paint (National Fair Housing Alliance, 2012). Moreover, because REO properties are often vacant, they are vulnerable to vandalism and theft, which can result in particularly severe and visible physical distress that can reduce the value of neighboring properties (Mikelbank, 2008, Whitaker and Fitzpatrick 2011). Distressed and vacant properties resulting from foreclosures are also believed to attract crime, by signaling social disorder, reducing ‘eyes on the street,’ and providing venues for illicit activity (Ellen, Lacoë and Sharygin, 2013). For these reasons, vacant and distressed REO properties also impose significant costs on local governments, which must address the elevated risk of fire, injury, and crime they cause (Apgar and Duda, 2005).

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<sup>1</sup> However, if the property is occupied by legal renters, under federal law, the REO owner must honor the remaining term of the lease or, if longer, allow the tenant to remain for at least 90 days after the lender takes title. See Title VII of the Helping Families Save Their Homes Act of 2009. Public Law 111-22, effective May 20, 2009 ([www.gpo.gov/fdsys/pkg/PLAW-111publ22/pdf/PLAW-111publ22.pdf](http://www.gpo.gov/fdsys/pkg/PLAW-111publ22/pdf/PLAW-111publ22.pdf)).

Another possible mechanism through which REO properties may affect nearby home prices is the use of REO sales as ‘comparables’ for appraisal purposes. Several studies suggest that REO properties sell at a discount (see Frame, 2010 and Lee, 2010 for reviews of this literature). Guidance from industry groups instructs appraisers not to disregard distressed sales, including sales out of REO, but rather to investigate the circumstances of such sales and to take them into account accordingly (Appraisal Institute, 2012). However, it is not clear how and to what extent appraisers adjust the sales prices of REO properties when valuing nearby homes, and in high-foreclosure neighborhoods, sales out of REO may provide most of the guidance for valuations.

Finally, many also fear that the sale of REO properties to unscrupulous investors hastens neighborhood decline (see, e.g., Katz, 2009). Treuhaft, Rose and Black (2011) and Ergungor and Fitzpatrick (2011) describe several investor business models that might harm neighborhoods, such as acquiring low value REO properties for quick, sometimes fraudulent flips, or using purchased REO properties as low-quality rental housing with little or no ongoing property maintenance. Of course not all investors are unscrupulous or pose a risk to the neighborhood. Greenberg, Essene and Lee (2009) show that investors who purchased two- to four-unit buildings in Southern New England between 2005 and 2009, generally put in more equity, had higher credit scores, and experienced lower foreclosure rates than owner occupants who purchased these same types of buildings. Nonetheless, REO sales are often the decisive point of transition from once-stable owner occupancy to the next form of ownership.

Policymakers have adopted or proposed a variety of strategies to address the potential threats REO properties pose to neighborhoods and the overall housing market. Foreclosure prevention efforts, including counseling, the federal Home Affordable Modification Program, and the Home Affordable Refinance Program, aim not only to help families stay in their homes, but also to reduce the number of foreclosed properties entering the housing market and to prevent the external effects on neighborhoods described above.

Several other programs, however, focus on the properties that have already gone through foreclosure and are currently in REO. The most prominent is the federal government’s Neighborhood Stabilization Program (NSP) and the many local efforts it has funded. To date, three rounds of NSP funding have allocated nearly \$7 billion to local programs targeting census tracts that meet specific criteria based on foreclosure rates, vacancy, housing price changes and other measures of distress. Local government and non-profits have used this funding for a variety of purposes, including the acquisition of REO and other vacant properties for rehab and resale to owner-occupants; the acquisition of REO and other vacant properties for the creation or preservation of affordable rental housing; the acquisition and demolition of REO and other vacant properties to remove blight; and subsidizing financing or down payment assistance to homebuyers who purchase REO or other vacant properties. Through these targeted efforts to remove blight and steer REO properties to owner occupancy or responsible rental management, the NSP program aims to mitigate the negative spillovers that REO properties may generate in the neighborhoods most in danger of rapid decline.

Local governments have responded in a number of other ways as well. Some jurisdictions, including the counties containing Flint, Michigan and Cleveland, Ohio have created a new generation of ‘land banks’ to allow for more direct and longer-term public intervention in their

local housing markets (Fitzpatrick, 2010). These quasi-governmental corporations are empowered by state law to take title to tax-foreclosed properties, and also to purchase and receive donations of distressed REO properties, either individually or in bulk. The land banks assess the condition and market potential of properties and elect whether to demolish or resell them (with or without extensive rehabilitation). Local governments have also tried to mitigate the effects of distressed buildings, including REO properties, by stepping up code enforcement (Schilling, 2009). Many such jurisdictions also require owners to register vacant properties with the local government, which allows cities to deploy enforcement resources more efficiently.<sup>2</sup>

Finally, the federal government has responded by enacting or proposing policies focused on the extensive REO holdings of HUD, Fannie Mae and Freddie Mac. Through these entities, the federal government controls about half the national REO inventory (Board of Governors, 2012), so its REO management and disposition practices are an obvious opportunity for mitigating the problems associated with REO properties. To date, the Federal Housing Administration (FHA), which is responsible for the bulk of HUD's REO stock, and the GSEs have rolled out several policy initiatives. Both FHA and the GSEs have negotiated small-scale arrangements with local land banks or non-profits to transfer distressed, low-value REO properties at nominal cost, or even sometimes for free, with additional funding to pay for demolition (see, e.g., Keating, 2011). The GSEs and FHA also offer preferential 'first look' access to REO listings to public entities, prospective owner-occupants, and others, in order to reduce the flow of REO sales to investors.

More recently, the federal government has piloted the bulk sale of REO properties to public-private joint ventures that will operate the properties as rental units. As of the end of 2012, three transactions had been announced, which would transfer more than 1,700 properties in Florida, Chicago, Arizona, California, and Nevada (Homepath, 2013). Although private investors already convert some REO properties to rental housing, policymakers hope the bulk sales of federally-owned REO properties will allow for economies of scale that make responsible, well-capitalized rental management feasible at a large scale, without significant financial sacrifices by FHA and the GSEs.

Given the large number of mortgages that are currently delinquent or already in foreclosure, and the failure of prices in most parts of the country to rebound fully, the flow of properties into REO is almost certain to continue for at least the next few years. A recent Federal Reserve Board white paper estimated that as of the end of 2011, the number of properties in the foreclosure process was more than four times greater than the number of REO properties (Board of Governors, 2012). Many public officials will continue to advocate for additional policy response in hard-hit neighborhoods. Assessing whether additional policy responses are necessary and, if so, what form they should take depends, in part, on a firm understanding of current and projected REO trends in these neighborhoods.

### **Prior Research on REO Stocks**

Despite the place-based focus of NSP and other local interventions, surprisingly little research has focused on REO market dynamics at the neighborhood level. There is, however, a larger

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<sup>2</sup> For a list of jurisdictions with vacant property registries, see [http://www.safeguardproperties.com/Services/Vacant\\_Property\\_Registration.aspx](http://www.safeguardproperties.com/Services/Vacant_Property_Registration.aspx)

body of existing work looking more broadly at REO stocks nationally and at the metropolitan area or citywide level that provides a foundation for our analysis. Immergluck (2008) and (2010) provide an early comprehensive look at REO inventories around the country, using data from a proprietary mortgage servicer database to estimate the number of REO properties in 2006 and 2008 in all 358 U.S. metropolitan areas (MSAs). The papers report that nearly every MSA had an increase in REO density during this period, including Miami and Atlanta, though the MSAs with the largest increases were in California, Arizona or Nevada. A 2010 Furman Center analysis reports that the REO stock in New York City also grew rapidly between the beginning of 2007 and the end of 2008, from 290 properties to 1,830.

CoreLogic (2011) provides recent national data about the length of time properties have spent in REO. It reports that the share of REO properties that sold within only three months of entering lender ownership grew from less than a quarter in 2006, to almost half in the middle of 2009, but then dropped back to 36 percent as of the second quarter of 2010. Research focusing on individual cities shows wide variation at the local level. Looking only at Chicago and in earlier years, Smith and Duda (2009) find the median REO duration grew from 172 days in 2005 to more than 250 days in 2007. Furman Center (2010) finds that in New York, properties also spent an increasingly long time in REO as the foreclosure crisis played out: the share of properties that entered REO in 2007 that were resold within one year was less than 40 percent, compared to more than 50 percent the previous year. In contrast, Immergluck (2012a) finds that the median duration spent in REO in Fulton County, Georgia dropped steadily between 2005 and 2008, from 925 days to only 175 days, which he attributes in part to the surge in low value properties in REO, which lenders sold relatively quickly.

CoreLogic (2011) also provides data about the number of properties exiting REO in recent years and total sales. From September, 2010 through August, 2011, the share of all sales nationally made up of REO properties ranged from 16 percent (in the last month of this period) to 26 percent (in February, 2011). The report also provides the same data as of August 2011 for each state, and for 25 large housing markets. In the individual MSA markets, the REO share of all sales varied widely, from only about two percent in the Nassau-Suffolk, New York area to 40 percent in the Riverside-San Bernardino-Ontario, California area. In the Atlanta area it was 22 percent, and no data were provided for the Miami area or for the New York City area (other than the Nassau-Suffolk portion).

Despite concern among many advocates that irresponsible speculators are buying REO properties and further threatening the recovery of their communities, little research as focused on who is buying REO properties. Of course it is difficult, if not impossible, to identify irresponsible speculators empirically, but a few researchers have studied the share of REO buyers who are investors. Coulton, Schramm and Hirsh (2010) focus on the many properties sold out of REO in Cuyahoga County, Ohio at an extremely low price (less than \$10,000) in 2007 and 2008. They find little evidence that large investors were dominating the market. They report that the ten most prolific investors buying these properties purchased between 21 and 145 properties each, and together accounted for only 18 percent of all such REO purchases in the sample.

Using deeds data from Fulton County, Georgia that cover the period between January 2005 and April 2009, Immergluck (2012a) finds that investors (identified through several techniques)



together accounted for about 40 percent or more of all purchases out of REO each year. Of the subset of REO properties that sold for less than \$30,000, the paper estimates that investors accounted for 68 percent in 2008. Nationally, Treuhaft, Rose and Black (2011) cite data from a January 2011 Campbell/Inside Mortgage Finance survey showing that investors accounted for more than 60 percent of all purchases of ‘damaged REOs’ compared to less than 20 percent of ‘move-in ready REOs’ and only about ten percent of non-distressed (i.e., not REO or short sales) home purchases. This suggests that investors may be more of a presence in hard-hit neighborhoods.

Very little prior work applies the types of analyses described above to smaller levels of geography to explore the community development implications of the REO stock. In one of the few such studies, Smith and Duda (2009) track single-family properties that entered REO between January 2005 and June 2008 in Chicago and finds that a disproportionate share of the properties from this group that remained unsold at the end of 2008 were located in predominantly black neighborhoods. The authors projected that the REO properties in these neighborhoods would take substantially longer to be absorbed by the market than the REO stock in mostly white neighborhoods. Similarly, a Furman Center study shows that the properties that entered REO in New York City in 2008 were overwhelmingly located in the same majority minority neighborhoods where the city’s foreclosures were concentrated (Furman Center 2010). Immergluck (2012a) also includes a brief analysis of the geography of sales out of REO in Fulton County, Georgia and shows that many, especially low value sales, are clustered in low income neighborhoods. Finally, Immergluck (2012b) analyzes neighborhood-level trends in Fulton County, Georgia, but focuses on the level of investor purchases of REO stocks, rather than on the size of the total stock. He finds that the share of single family homes in a census tract purchased by investors through an REO sale is strongly correlated with housing vacancy and poverty, inversely related to the median tax appraised value of homes, and weakly correlated with the tract’s percent black. He also defines and analyzes four neighborhood types based on the share of detached single family homes that were acquired by a likely investor through an REO sale. Among his findings: over time, the highest investor-share tracts accounted for a decreasing share of all Fulton County foreclosures; individual investors purchasing REO properties in the highest investor share tracts tended to be larger (i.e., purchasing several properties individually); and investors were less likely to ‘flip’ properties purchased in the highest investor share tracts than in other tracts.

Our analysis updates this earlier literature with more current data but more importantly, we examine the degree to which certain communities within regions may be being left behind while others are starting to recover. Further, we perform our analysis in three jurisdictions in different parts of the country, allowing us to explore differences among regions before drawing wider conclusions about issues and trends that might require additional attention from local practitioners and policymakers.

## **Data and Methods**

To conduct our analysis, we obtained local records of every deed filed in the register’s office of Fulton County, Miami-Dade County, and New York City. For each study area, we have a record

of every property transfer including the property location, the date, the price, and the names of the parties involved.

Our study tracks one- to four-family residential properties (including condominium units) that entered REO between 2002 and 2011 in Miami-Dade County, and between 2002 and 2012 in Fulton County and New York City. To identify properties that enter REO, we first identify all transfers that occur as a result of a foreclosure auction.<sup>3</sup> To identify which auctioned properties enter REO versus pass to third party bidders, we search the grantee names of auction-related transfers for any words that indicate the name of a bank, lender, servicer, or government entity. Additionally, we classify as an entry into REO any other property transfer from a non-lender entity to a lender or government agency so that we also include properties transferred to REO through ‘deed in lieu’ transactions or that were missing an auction flag due to administrative errors in our data.<sup>4</sup>

For each property that winds up in REO, we attach any subsequent transfers of the property to track its exit out of REO and any later resales. We consider a property to have exited the REO stock upon the first transfer to a buyer who is a likely investor or individual (see below for definitions) and not a lender or federal or state government agency.<sup>5</sup> When identifying REO properties that were ‘flipped,’ we treat a transfer as a resale only if it is at least one day after the first transfer out of REO to avoid counting transfers among affiliates. When calculating the share of all arm’s length sales made up of sales out of REO, we omit all transfers that were for less than \$1000 so as not to count inter-spousal, estate, and other non-market transactions.

Following Immergluck (2011), we classify any party acquiring a property out of REO as a likely investor if, based on a key word search of the grantee name, it appears to be a corporate entity (e.g., the grantee name includes ‘inc,’ ‘corp,’ ‘llc,’ etc.) or if that same grantee name is matched to two or more other REO acquisitions or four or more property acquisitions of any type in our study period. Additionally, we classify as an investor any purchaser who resells an REO property within 12 months of its purchase. We classify all other buyers as individuals. Of the investors,

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<sup>3</sup> In New York City we rely primarily on a specific ‘foreclosure auction’ flag included in the data provided by the New York City Department of Finance. Because the flag is not applied consistently to *every* auction sale, we supplement our list of auction transfers by adding all other property transfers for which the grantor (seller) includes the term ‘referee.’ (As part of New York’s judicial foreclosure process, all auction sales are administered by a court-appointed referee.) The Fulton County data contain two flags that identify foreclosure-related transactions, which, unlike in New York City, appear to be applied to sales out of REO or even resales after REO, not just the transfers out of auction. Because foreclosure auctions in Fulton County always take place on the first Tuesday of the month, we only count as auction sales those sales that are both flagged as foreclosure-related and take place on such a date. In Miami-Dade County, the Clerk of the County Court is listed as the grantor for all transfers resulting from a foreclosure auction, which we use to identify such transfers.

<sup>4</sup> In a small number of cases, we observe multiple deeds purporting to transfer the same property into REO filed within a very short time frame which, given the foreclosure timeline, we believe to be administrative errors or correction deeds filed to amend earlier deeds. Accordingly for any series of multiple transfers into REO within a defined time frame (within one year in Atlanta or Miami or three years in New York City), we only count the first such transaction as an entry into REO. This step drops 548 entries into REO in New York City, 2,302 entries into REO in Fulton County, and 10,825 in Miami-Dade County. In Miami-Dade, many of these are probably correction deeds, which, unlike those in Fulton County and New York City, cannot be directly identified with the data.

<sup>5</sup> We also automatically change a property’s status to non-REO after it has been in REO for seven years, under the assumption that such properties were in fact sold out of REO at some point through a deed that was not recorded or improperly filed by the register’s office.

we identify entities that were participants in local NSP-efforts by reviewing the ‘action plans’ and quarterly reports of recipients of NSP funding allocations in the three jurisdictions and through inquiries to Restored Homes in New York City and Neighborhood Housing Services of South Florida.<sup>6</sup>

Finally, we use GIS to map all property addresses to census tracts to identify the neighborhoods and link to the Census’s American Community Survey (ACS) and 2010 decennial census data to describe the racial/ethnic demographics and other socio-economic characteristics of those neighborhoods. To estimate the number of ‘mortgageable properties’ in jurisdictions and census tracts (which we use to calculate REO concentrations as described in the next section of the article), we sum the number of attached and detached one-unit structures, one half the number of units in two-unit structures, two sevenths the number of units in 3-4 unit structures, and the number of owner-occupied units in structures with five or more units, each as estimated by the 2006-2010 ACS. The first components of this total are an approximation of the number of one- to four-family properties and the last component is an approximation of condominium units in larger buildings. The ACS does not provide estimates of the number of vacant or renter-occupied condominium units in larger buildings, however, and it likely omits large numbers of newly constructed properties in some tracts (particularly in Miami-Dade County), so our estimates of mortgageable properties are undercounts.

## Results

### *Overview of REO Accumulation Trend*

Figures 1(a), 1(b), and 1(c) show the number of properties in REO stocks as of the end of each month from January 2006 through the end of 2011 or 2012 in all of Fulton County, Miami-Dade County, and New York City, respectively. The pattern and scale of REO accumulation has been quite different in the three areas, but in each the overall REO stock at the end of 2011 had shrunk significantly from peak sizes. In Fulton County, the REO stock grew rapidly between 2006 and 2008, peaking at about 6,600 properties at the end of July 2008. Since then, however, the REO stock in Fulton County dropped for several months, had a secondary peak in early 2011, and then once again began to decline. At the end of 2011, the REO inventory had fallen to about 4,500 properties. This was equal to 17.2 REO properties per thousand ‘mortgageable properties’ (our estimate of the number of one- to four-family homes and condominium units). In 2012, the REO inventory dropped another 16 percent to about 3,800. Of our three study areas, Miami-Dade County had by far the largest absolute number of REO properties since the onset of the foreclosure crisis, with a peak of nearly 12,800 in November 2010. There, too, the REO stock has contracted, and stood at about 7,400 at the end of 2011, equal to 11.8 REO properties per thousand mortgageable properties. In New York City, the REO stock was smaller throughout our study period than in Fulton and Miami-Dade County, both in absolute terms and relative to New York’s housing stock. In New York City, the REO inventory peaked in March 2009 at about 2,100 properties. By the end of 2011, the REO stock in the city had dropped to only about 900, equal to about 0.8 REO properties per thousand mortgageable properties, and in 2012, the REO stock dropped another 30 percent.

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<sup>6</sup> HUD makes available all action plans and required reporting of NSP funding recipients at <https://hudnsphelp.info/index.cfm?do=viewGranteeAreaResults>.

### *Neighborhood Variation in REO Inventory*

As expected, the distribution of REO properties across neighborhoods varies widely in all three areas we analyzed, and as of the end of 2011, several years into the foreclosure crisis, some neighborhoods are clearly still suffering the effects more severely than others. Figures 2(a), 2(b), and 2(c) show for each jurisdiction the distribution of census tracts by the number of REO properties as of the end of 2011. In Miami-Dade and Fulton Counties, almost all tracts had at least one REO property, and most had at least 10. Several tracts in the two counties had more than 50 REO properties and a handful had more than 100.

In New York City, the distribution of tracts was very different, reflecting the relatively low number of REO properties in the city overall. More than three quarters of all New York neighborhoods had no REO properties at all as of the end of 2011, and only two tracts (less than one percent) had 10 or more. No New York tract had more than 12 REO properties.

For further analysis, we divide each jurisdiction's census tracts into four categories based on the extent of their concentration of REO properties. To account for differences in housing stock and tract size, our category definitions are based primarily on the number of REOs per thousand mortgageable properties (one- to four-family homes and condominium units).

- **'Hardest-hit'** tracts have at least 40 REO properties per thousand mortgageable properties and at least five REO properties as of the end of 2011, or have at least 100 REO properties, regardless of the number of mortgageable properties.
- **'Moderately-hit'** tracts have at least 10 REO properties per thousand mortgageable properties as of the end of 2011, have at least three REO properties, and are not in the hardest-hit group.
- **'Modestly-hit'** tracts include all other tracts with at least one REO property as of the end of 2011.
- Finally, **'No REOs'** are tracts without any REO properties as of the end of 2011 (though many of these tracts had REO properties at other points in recent years).

Figures 3(a), 3(b), and 3(c) show the location of the tracts of each type in the three jurisdictions. Table 1 shows for each jurisdiction the number of tracts of each type and the average number of REO properties and mortgageable properties across all tracts of that type. Within the group of hardest-hit tracts in Fulton and Dade Counties, there was wide variation in the absolute size of the REO inventory. Three of the 20 hardest-hit tracts in Fulton County had fewer than 10 REOs and relatively few mortgageable properties—one tract had only 80 mortgageable properties according to ACS estimates, six of which were in REO. At the other extreme, five of the hardest-hit tracts in Fulton County had more than 100 REO properties, and each of these had between 3,000 and 5,000 mortgageable properties. Similarly, of the 18 hardest-hit tracts in Miami-Dade County, four had fewer than 10 REOs but others had as many as 133. As Table 1 shows, the great bulk of tracts in the two counties were in the moderately- and modestly-hit groups.

In New York City, no neighborhoods had the number and density of REO properties to merit inclusion in our hardest-hit group, but 16 tracts were classified as moderately-hit. All but two of

these tracts had fewer than ten REO properties. Many more New York tracts were in the modestly-hit group, most of which had only one REO as of the end of 2011. The majority of all tracts, however, had no REO properties at all.

Perhaps a better measure of how much REO properties are affecting the housing market in these neighborhoods is the share of property sales that were sales out of REO ownership. REO properties are likely to threaten the stability of a neighborhood if they swamp its real estate market. Table 2 shows that REO properties accounted for at least 40 percent of all sales of mortgageable properties in the hardest hit neighborhoods of Fulton County in every year from 2010 to 2012, a higher share than in other neighborhoods. The market recovery in these neighborhoods is clearly being held back by these distressed sales, which are likely depressing the value of surrounding properties. In contrast, in Miami-Dade County, REO sales made up less than a quarter of all sales in the hardest-hit neighborhoods in 2011, down from 30 percent in 2010, and comparable to the share in other neighborhoods.<sup>7</sup> In New York City, in the moderately-hit tracts, REO sales accounted for 17 percent of all sales in 2012, down from about a quarter in 2011 and 42 percent in 2010. In the modestly-hit tracts, REO properties only accounted for three percent of all sales in 2012, a slight drop from 2010 and 2011.

### *Characteristics of the Hardest-Hit Neighborhoods*

Table 3 compares the hard-hit neighborhoods in each area to the other groups of tracts across several demographic and socio-economic characteristics. For each characteristic, the table shows the average value for all tracts in the group. The one consistent difference across the three areas is that harder-hit neighborhoods tend to have a greater concentration of black residents than other neighborhoods with relatively few (but at least one) REOs. In Fulton County, this difference was the starkest of any of the three jurisdictions: the hardest-hit Fulton County neighborhoods were, on average, almost three quarters black and only 12 percent white, while modestly-hit neighborhoods were, on average, only 15 percent black and 67 percent white (the small number of tracts with no REO properties were generally high poverty, low ownership tracts, and were also majority non-white, on average). In New York, the moderately-hit tracts were on average, majority black, while neighborhoods with lower concentrations of REO properties had, on average, lower percentages of black residents. In Miami-Dade County, the hardest-hit and moderately-hit tracts had higher percentages of black residents than tracts with very few REO properties, but the difference was less dramatic. Notably, in Miami-Dade County, all tract types were, on average, majority Hispanic.

In Fulton County, the hardest-hit and moderately-hit tracts had much higher average unemployment and poverty rates than the modestly-hit neighborhoods. In the other two jurisdictions, the neighborhoods with the highest concentrations of REO properties (i.e., the hardest-hit tracts in Miami-Dade County and the moderately-hit tracts in New York) also had

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<sup>7</sup> It is somewhat puzzling that the sales market in Miami-Dade County's hardest hit tracts does not appear to be more dominated by REO properties than the market in other tracts. This finding appears to be due at least in part to our underestimation of the number of mortgageable properties in each tract. Because we rely on 2006-2010 ACS, we are unable to count vacant and rental condominium units and more recent construction. Accordingly, it is likely that we significantly over-estimate the REO density in a small number of tracts and misclassify them as hardest-hit. If we omit property sales by developers, the REO share of all sales in the hardest-hit tracts in 2010 and 2011 increases by about seven percentage points.

higher average poverty and unemployment rates than the modestly-hit tracts, but the difference was much smaller than in Fulton County.

To be clear, however, even though the hardest-hit tracts are more economically distressed on average than other groups, they are generally not the most distressed neighborhoods of each jurisdiction. In most cases the hardest-hit tracts were neighborhoods with substantial numbers of single-family or two- to four-family houses and condominiums rather than multi-family rental properties (including public housing). In fact, in Fulton County, of the 20 most impoverished census tracts (the top decile by poverty rate), only four were also among the hardest-hit by REO properties. In Miami-Dade, only five of the 50 highest-poverty tracts (again, the top decile) were in the hardest-hit group. And in New York City, only two of the 213 highest-poverty tracts (the top decile) were relatively hard-hit by REOs.

### *REO Inventory Trends in the Hardest-Hit Neighborhoods*

It is of course impossible to know what will happen to these hard-hit neighborhoods in the future. But we can learn a bit from looking at recent trends in the size of the REO stock and the dynamics of the market for REO properties. In all three jurisdictions, the size of the REO stock in the hardest-hit neighborhoods has generally tracked the area-wide REO trends shown above. Figures 4(a), 4(b), and 4(c) show the change in REO stock for each tract type through 2012, in Fulton County and New York City, and 2011, in Miami-Dade County. In each figure, the number of REO properties is indexed to the beginning of 2008 so that the relative change for the tract types can be easily compared. In all three areas, the REO stock peaked in the hardest-hit neighborhoods at the same time that it peaked in the other tract types, but then receded roughly in parallel with other tract types as well. However, in Miami-Dade County, the number of REO properties in the hardest hit tracts stopped falling in the second half of 2011 (the latest half year in our data), even as REO stocks continued to fall in the other tract types.

While the number of REO properties in hard-hit neighborhoods has declined mostly in concert with the overall trend, the REO stock in these communities might still differ systematically in ways that are of particular concern. Somewhat surprisingly, Tables 4 and 5 show that in Miami-Dade County and New York City, the REO stock in the relatively hard-hit neighborhoods has not been in REO, on average, appreciably longer than the REO stock in other neighborhoods, if at all. In these jurisdictions, there is no evidence that REO owners in the hardest-hit tracts have had a more difficult time selling properties. In Fulton County, the trend is slightly different: while the median time in REO for the REO stock in hardest-hit tracts was no longer than in moderately-hit tracts (and the share in REO for three years no higher), modestly-hit neighborhoods seem to be faring much better than either by these measures. In Fulton County, then, owners of REO properties in these lightly-affected neighborhoods do seem to have had an easier time selling properties than in the harder-hit neighborhoods.

Further, Tables 4 and 5 show a worrisome increase in the median age of REO properties from the end of 2010 to the end of 2011 for all neighborhood types in our study areas, a trend that continued in 2012 in Fulton County and New York City. In the hardest-hit neighborhoods of Fulton County, for example, properties in REO as of the end of 2012 had been so, on average, for 545 days, compared to 333 days as of the end of 2011 and 213 days as of the end of 2010. In

Miami-Dade County, the median REO age increased by at least five months for each type of neighborhood from 2010 to 2011. And in New York City, the increase in median REO age from the end of 2010 to the end of 2012 was almost two years. Similarly, as Table 5 shows, the share of all REO properties that had been so for at least three years increased sharply in the hardest-hit neighborhoods and every other category for all three study areas. In Fulton County, about 30 percent of all REO properties in the hardest-hit tracts as of the end of 2012 had been in REO for more than three years, and in New York City, more than half of all REO properties in moderately-hit tracts had been in REO for more than three years. Thus while the REO inventory may have declined, more of it may be made up of ‘problem’ properties that lenders are having difficulty selling, and, if vacant or in poor condition, these properties may be particularly harmful to the recovery of neighborhood housing markets.

### *REO Purchasers in the Hardest-hit Neighborhoods*

Of course even if REO properties are being sold and stocks are declining, the sales may be to irresponsible owners. Many community advocates worry about the large number of investors purchasing REO properties in hard-hit neighborhoods. We find that investors are indeed playing a large role in the market for REO properties, especially in New York City, where they account for a majority of REO purchasers. And investors played a larger role in some neighborhoods than others. As Table 6 shows, in Fulton County it was the moderately-hit neighborhoods that had the highest share of REO sales that were to investors in 2010 and 2011 combined. In Miami-Dade County and New York City, in contrast, it was the relatively hard-hit neighborhoods that had the highest share of REO sales to investors. Data from 2012 show these splits to have changed little in Fulton County and New York City.

To be sure, investors are not necessarily bad for neighborhoods. Many investors take good care of their properties and intend to own them and operate them as rental properties for years to come. Some investors are in fact non-profits or developers funded through the Neighborhood Stabilization Program. Table 6 also shows for each type of neighborhood the share of all REO sales that were to entities operating as part of a local NSP effort. In 2010 and 2011, only about three percent of all REO sales in the hardest-hit neighborhoods in Fulton County and one percent of all REO sales in moderately-hit neighborhoods were to non-profits using NSP funds. In Miami-Dade County, we identified only five REO sales to NSP-financed buyers in the hardest-hit tracts in 2010 and 2011, making up less than one percent of all REO sales. NSP-financed purchases were more numerous in other Miami-Dade neighborhoods, but made up a similarly small share of all REO sales. Only in New York City did NSP-financed buyers absorb a material portion of REO sales in relatively hard-hit neighborhoods. We note, however, that we are only able to measure one way that NSP funds were used in these neighborhoods. We are unable to identify, for example, purchases of REO properties by individuals using downpayment assistance or other financing provided through NSP. Additionally, NSP grantees in all three jurisdictions devoted a substantial portion of total funding allocations to the development of new housing, the purchase (and in some cases demolition) of vacant non-REO properties, and the acquisition and rehabilitation of larger multifamily properties, so the full effects of NSP on the hardest-hit neighborhoods of each study location are likely more significant than indicated by Table 6 alone.

Table 6 also disaggregates the non-NSP investor buyers into three subgroups based on the number of properties they purchased: large investors purchasing more than 50 properties; medium investors purchasing between 10 and 50; and small investors, made up incorporated entities purchasing fewer than 10 and individuals purchasing from two to nine REO properties. In the hardest-hit neighborhoods and all other tract types in all three locations, we find that the small investors consistently account for more than two thirds of all REO purchases by likely investors. However it is likely that some investors purchase properties through multiple affiliated corporate entities, so our count of medium and large investors is conservative.

To attempt to distinguish between ‘flippers’ and other investors, we also examine the share of all properties purchased out of REO that were quickly resold (either within three months or three years). Despite widespread concern about flipping, we find that relatively few REO properties in either the hardest-hit neighborhoods or other neighborhoods were quickly resold by purchasers in recent years. Table 7 shows that less than three percent of REO properties purchased by investors in Fulton County’s hardest-hit neighborhoods in 2010 were then flipped within three months, and only about eight percent were flipped within a year, percentages that were comparable to the other neighborhood types. In Miami-Dade County the percentage of REOs that were flipped was very slightly higher than in Fulton County, but again there was no significant difference between the hardest-hit tracts and other neighborhoods. In New York City, investors flipped a much higher share of REOs purchased in 2010 within a year than in the other jurisdictions—more than one third—but here too there was very little difference between neighborhood types. 2012 data showed no meaningful change in flipping frequency in Fulton County and New York City.

## **Policy Implications and Conclusion**

By identifying the neighborhoods that have been burdened with particularly high concentrations of REO properties, our analysis sheds new light on the community development challenges posed by the foreclosure crisis. In Fulton County, Georgia and Miami-Dade County, Florida, we identify a number of census tracts with particularly high rates of REO properties per thousand mortgageable properties as of the end of 2011. In some of the larger tracts, this translated into more than 100 REO properties. In New York City, however, REO concentrations are generally much lower, and at the end of 2011, no census tract had more than 12 REO properties. This illustrates the wide variation not only across neighborhoods, but across metropolitan areas as well. In all three areas, the neighborhoods with high concentrations of REO properties are generally not the most distressed areas of their regions: they are not the poorest neighborhoods, nor do they have the highest unemployment rates. They are, however, disproportionately black, suggesting that the damaging effects of high REO concentrations are taking a particularly high toll on black homeowners and residents in these areas.

More hopefully, we find that the number of REO properties in the hard-hit neighborhoods of each area we studied was declining as of the end of 2011, generally in line with the countywide or citywide trend in REO inventory. At least in Fulton County and New York City, this decline extended through 2012. If these trends continue, these neighborhoods may not be left behind by broader improvements to the housing markets in these regions. Similarly, we find that investors do not account for an appreciably higher proportion of purchasers of REO properties in the hardest-hit neighborhoods than in other neighborhoods, though they do account for a substantial



minority of purchasers in all neighborhoods in Fulton and Miami-Dade Counties, and a majority of those in New York City. Still, these investors do not appear to ‘flip’ many of these properties as some community advocates have feared. In the hardest-hit neighborhoods of each area, only about five percent or less of all REO properties purchased by investors in 2010 were then resold within three months. In Fulton and Miami-Dade counties, only a relatively small share was flipped even within 12 months, though such rapid resales are more common in New York City.

Our findings also point to continuing community development challenges, however, which may justify additional policy intervention. Specifically, those REO properties that remained in these cities (including those in hard-hit neighborhoods) as of the end of 2011 had been in REO for a longer duration than was typical one year earlier. In Fulton County and New York City, the REO stock at the end of 2012 was staler yet. Accordingly, even though REO stocks have declined, they may consist of more problematic properties. Moreover, in Miami-Dade County, the decline in REO stocks in the hardest-hit neighborhoods may have stalled in the second half of 2011, and in Fulton County, the density levels of REO properties in many neighborhoods remained highly concerning at the end of 2012. In Fulton County’s hardest-hit tracts, REO properties made up almost half of all sales in 2011 and 40 percent of all sales in 2012, so were likely exerting significant downward pressure on housing prices. And while NSP may be improving neighborhoods in other ways, only a negligible share of the REO sales in the hardest-hit tracts of Fulton and Miami-Dade Counties in recent years were to non-profit entities and developers using NSP funds. If policymakers do decide more intervention is needed, it will likely need to be more robust and more targeted towards REO properties in these neighborhoods. Finally, despite the hopeful signs in the REO trends we observe and the possible slowing of the pipeline for new REOs, any uptick in foreclosure filings and REO inflow following the robo-signing settlement could re-inflate REO stocks in these hard-hit neighborhoods. If nothing else, these hard-hit neighborhoods need continued monitoring to ensure any further policy response is appropriately focused and commensurate to the scale of the problem.

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## Tables

**Table 1.** Number and Share of Tracts by REO Concentration Type, End of 2011

	Number of tracts	Share of tracts	Mean # REOs (2011)	Mean # mortgageable Properties	REOs per thousand mortgageable properties
<i>Fulton County</i>					
Hardest-hit tracts	20	10%	55.6	1,326	42.1
Moderately-hit tracts	109	54%	23.7	1,186	20.7
Modestly-hit tracts	71	35%	10.6	1,587	6.8
Tracts with no REOs	2	1%	-	201	-
<i>Miami-Dade County</i>					
Hardest-hit tracts	18	4%	28.9	614	47.2
Moderately-hit tracts	231	45%	19.1	1,180	16.2
Modestly-hit tracts	250	49%	8.5	1,368	6.2
Tracts with no REOs	13	3%	-	110	-
<i>New York City</i>					
Hardest-hit tracts	0	0%	-	-	-
Moderately-hit tracts	16	1%	5.4	406	13.3
Modestly-hit tracts	490	23%	1.7	674	2.6
Tracts with no REOs	1627	76%	-	508	0.0

**Table 2.** Share of Sales that were out of REO in Hardest-Hit and Other Census Tract Types, 2010-2012

	2010	2011	2012
<i>Fulton County</i>			
All tracts	31.8%	32.3%	27.2%
Hardest-hit tracts	42.5%	47.5%	40.0%
Moderately-hit tracts	37.3%	37.6%	30.9%
Modestly-hit tracts	18.3%	18.8%	15.8%
<i>Miami-Dade County</i>			
All tracts	22.8%	21.7%	(unavailable)
Hardest-hit tracts	29.9% <sup>a</sup>	21.4% <sup>a</sup>	(unavailable)
Moderately-hit tracts	31.0%	27.4%	(unavailable)
Modestly-hit tracts	22.7%	20.4%	(unavailable)
<i>New York City</i>			
All tracts	3.0%	1.8%	0.9%
Moderately-hit tracts	42.2%	25.9%	17.2%
Modestly-hit tracts	6.1%	4.1%	2.7%

<sup>a</sup>Includes large numbers of sales of vacant and rental condominium units by developers. See footnote 7 for caution in interpreting result.

**Table 3.** Mean Characteristics of Hardest-Hit and Other Census Tract Types

	Number of tracts	Percent White	Percent Black	Percent Hispanic	Poverty Rate	Unemploy- ment Rate	Homeowner -ship Rate
<i>Fulton County</i>							
Hardest-hit tracts	20	12.2%	76.3%	6.8%	29.9%	14.0%	36.0%
Moderately-hit tracts	109	24.2%	64.5%	6.9%	25.6%	12.6%	44.4%
Modestly-hit tracts	71	67.3%	15.1%	7.2%	8.3%	6.2%	62.9%
Tracts with no REOs	2	25.0%	35.0%	37.9%	31.3%	7.9%	21.6%
<i>Miami-Dade County</i>							
Hardest-hit tracts	18	23.0%	17.1%	56.2%	23.3%	8.7%	28.1%
Moderately-hit tracts	231	15.5%	25.5%	56.1%	19.7%	9.3%	52.5%
Modestly-hit tracts	250	18.4%	8.8%	70.5%	14.4%	7.6%	61.5%
Tracts with no REOs	13	26.7%	11.2%	59.0%	28.6%	10.9%	32.9%
<i>New York City</i>							
Hardest-hit tracts	0	N/A	N/A	N/A	N/A	N/A	N/A
Moderately-hit tracts	16	5.8%	53.4%	29.3%	25.6%	13.6%	30.4%
Modestly-hit tracts	490	18.9%	38.6%	29.1%	17.5%	9.7%	43.2%
Tracts with no REOs	1627	38.1%	19.9%	25.9%	18.3%	8.7%	32.4%

**Table 4.** Median Number of Days in REO for REO Stock in Hardest-Hit and Other Census Tract Types, End of 2010, 2011, and 2012

	End of 2010	End of 2011	End of 2012
<i>Fulton County</i>			
Hardest-hit tracts	213	333	545
Moderately-hit tracts	241	361	608
Modestly-hit tracts	178	242	348
<i>Miami-Dade County</i>			
Hardest-hit tracts	176	344	(unavailable)
Moderately-hit tracts	175	445	(unavailable)
Modestly-hit tracts	176	450	(unavailable)
<i>New York City</i>			
Moderately-hit tracts	413	743	1,113
Modestly-hit tracts	359	659	1,018

**Table 5.** Share of REO Stock in REO for More than Three Years in Hardest-Hit and Other Census Tract Groups, End of 2010, 2011, and 2012

	End of 2010	End of 2011	End of 2012
<i>Fulton County</i>			
Hardest-hit tracts	9.8%	18.9%	28.5%
Moderately-hit tracts	9.2%	20.3%	31.3%
Modestly-hit tracts	6.8%	10.1%	17.7%
<i>Miami-Dade County</i>			
Hardest-hit tracts	4.0%	11.7%	(unavailable)
Moderately-hit tracts	2.4%	8.9%	(unavailable)
Modestly-hit tracts	3.4%	10.6%	(unavailable)
<i>New York City</i>			
Moderately-hit tracts	7.4%	20.7%	53.4%
Modestly-hit tracts	7.5%	20.0%	42.3%

**Table 6.** Type of Buyer for Properties Sold out of REO 2010-2011 in Hardest-Hit and Other Census Tract Types

	Individuals	Investors				
		<i>NSP Buyers</i>	<i>Small Investors</i>	<i>Medium Investors</i>	<i>Large Investors</i>	
<i>Fulton County</i>						
Hardest-hit tracts	73.3%	2.6%	18.4%	4.4%	1.2%	
Moderately-hit tracts	62.5%	1.3%	26.8%	6.7%	2.7%	
Modestly-hit tracts	81.2%	0.3%	16.4%	1.6%	0.4%	
<i>Miami-Dade County</i>						
Hardest-hit tracts	57.6%	0.4%	32.2%	9.4%	0.4%	
Moderately-hit tracts	66.8%	0.9%	26.9%	5.1%	0.2%	
Modestly-hit tracts	71.7%	0.4%	24.1%	3.5%	0.4%	
<i>New York City</i>						
Moderately-hit tracts	27.5%	9.2%	50.0%	7.0%	6.3%	
Modestly-hit tracts	39.4%	3.6%	47.3%	7.1%	2.6%	

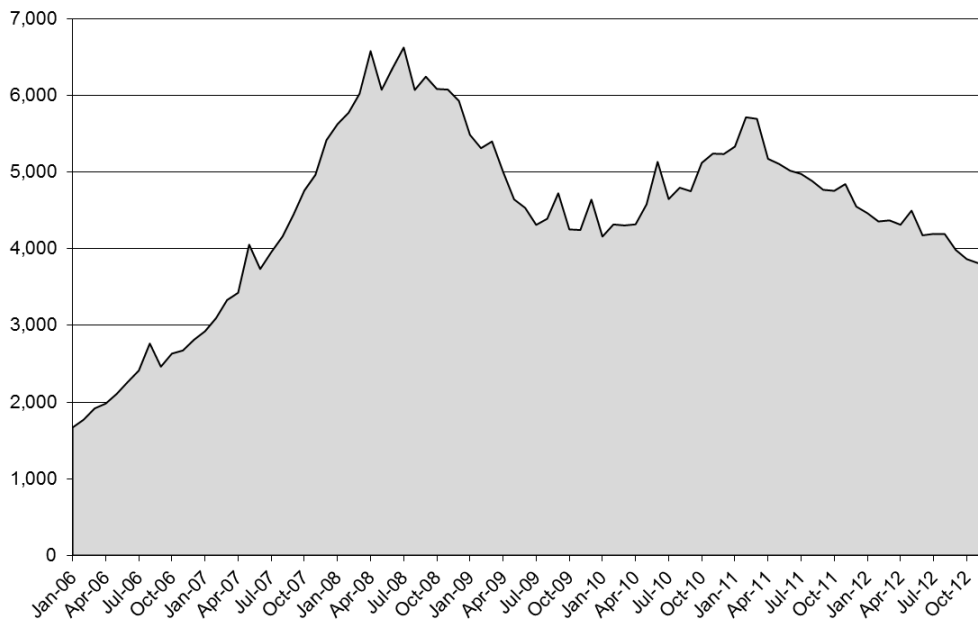
**Table 7.** Share of 2011 REO Sales Flipped in Hardest-Hit and Other Census Tract Types

	Flipped within 3 months	Flipped within one year
<i>Fulton County</i>		
Hardest-hit tracts	2.5%	8.0%
Moderately-hit tracts	3.8%	9.8%
Modestly-hit tracts	1.9%	6.5%
<i>Miami-Dade County</i>		
Hardest-hit tracts	5.9%	11.8%
Moderately-hit tracts	4.8%	13.6%
Modestly-hit tracts	4.0%	13.5%
<i>New York City</i>		
Moderately-hit tracts	6.7%	39.4%
Modestly-hit tracts	3.7%	36.8%

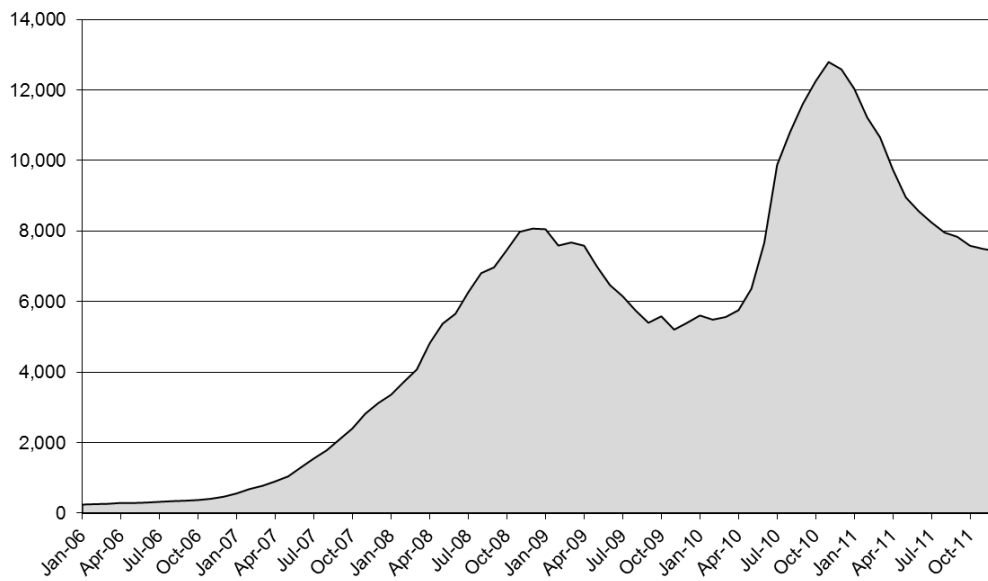


## Figures

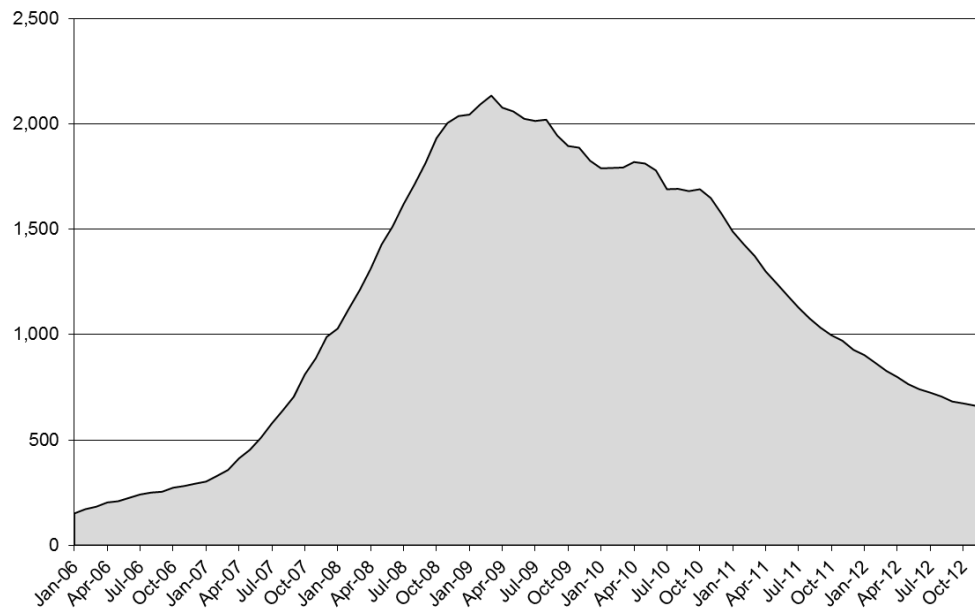
**Figure 1(a).** Fulton County REO Stock, January 2006 - December 2012



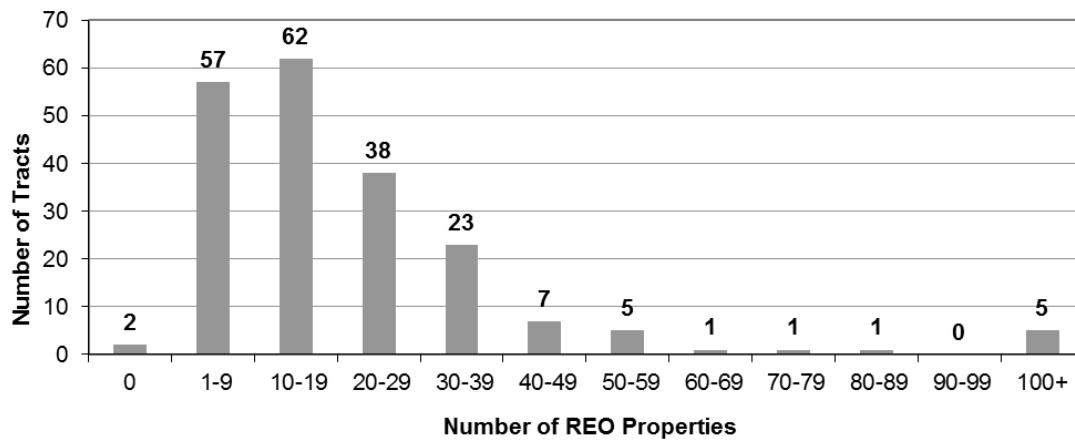
**Figure 1(b).** Miami-Dade County REO Stock, January 2006 - December 2011



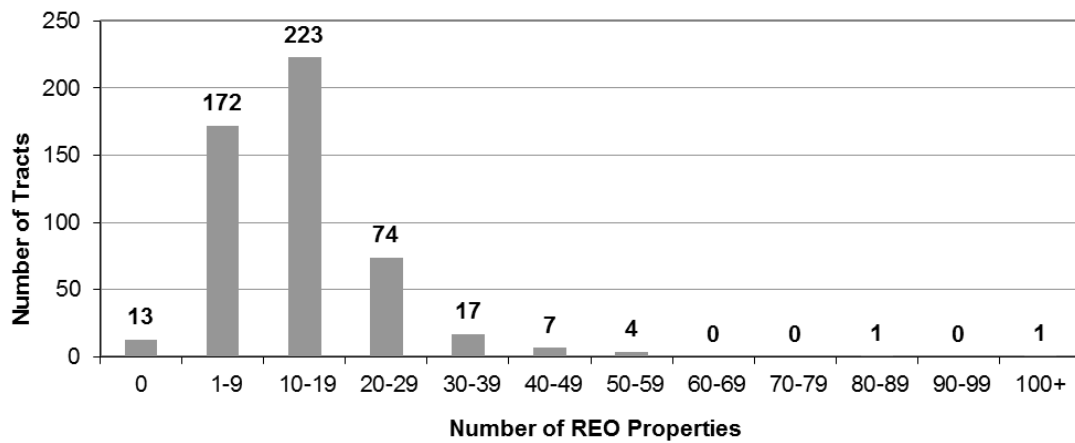
**Figure 1(c).** New York City REO Stock, January 2006 - December 2012



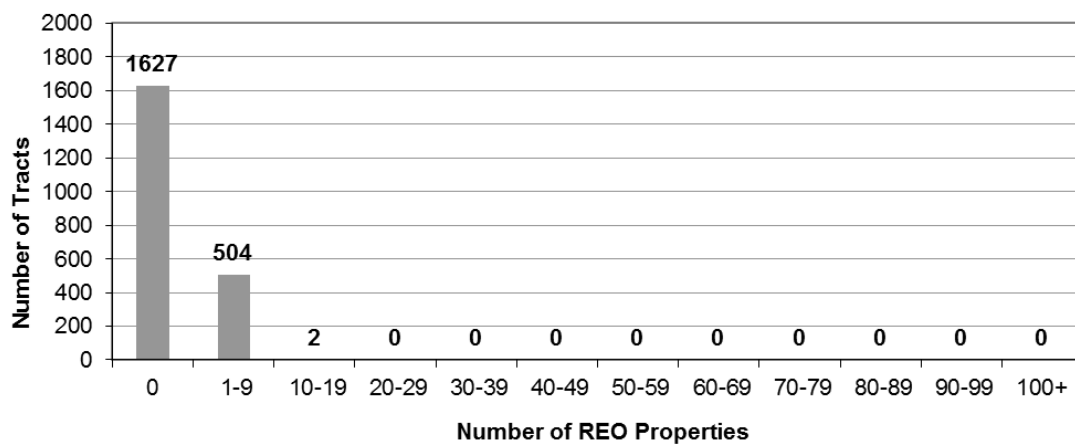
**Figure 2(a).** Number of Fulton County Tracts by REO Volume, End of 2011



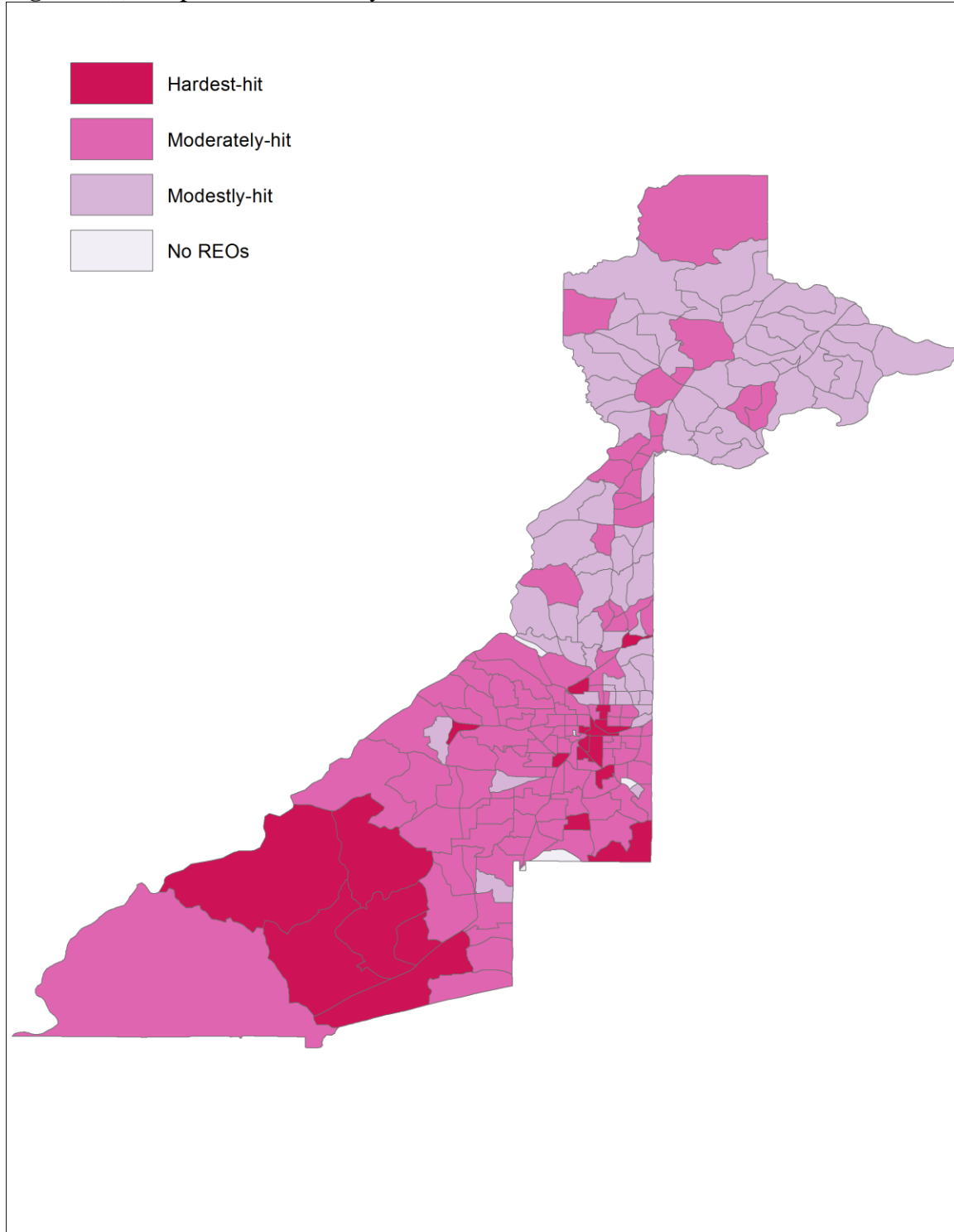
**Figure 2(b).** Number of Miami-Dade County Tracts by REO Volume, End of 2011



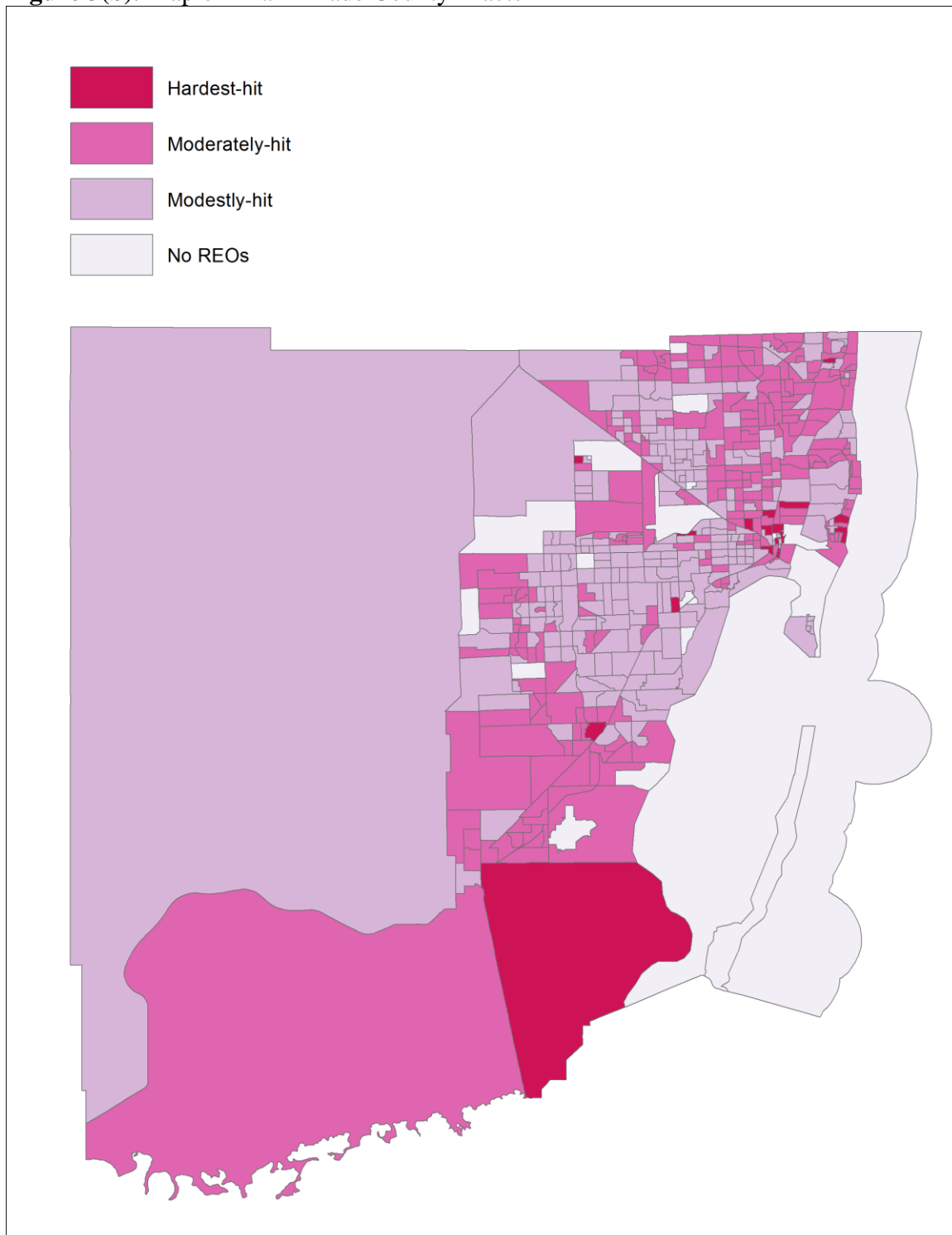
**Figure 2(c).** Number of New York City Tracts by REO Volume, End of 2011



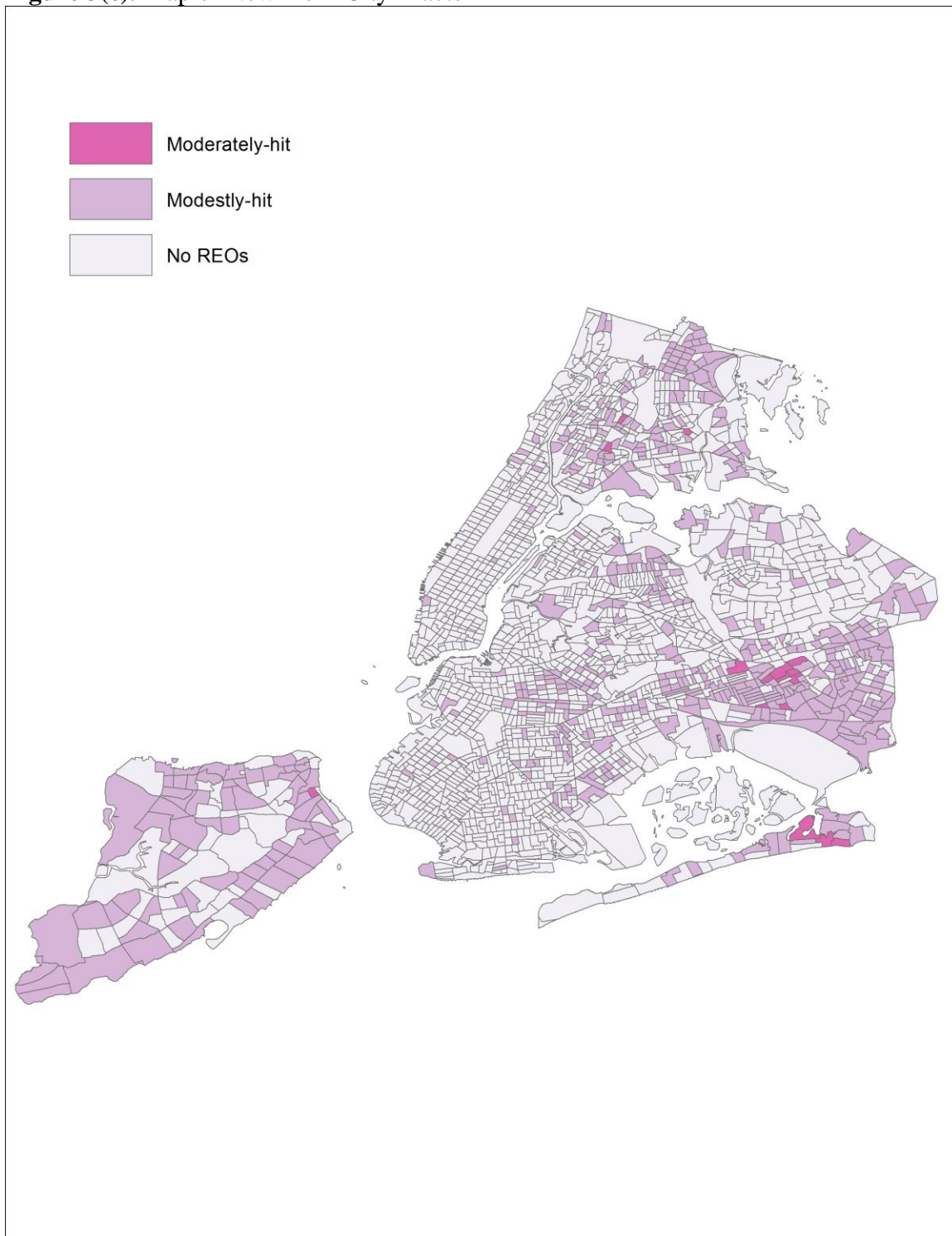
**Figure 3(a).** Map of Fulton County Tracts



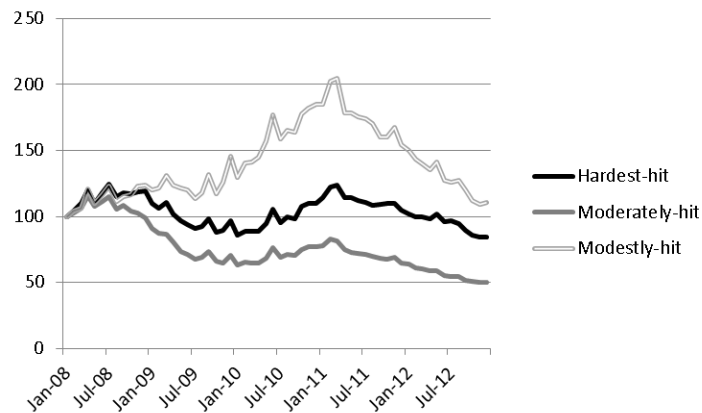
**Figure 3(b).** Map of Miami-Dade County Tracts



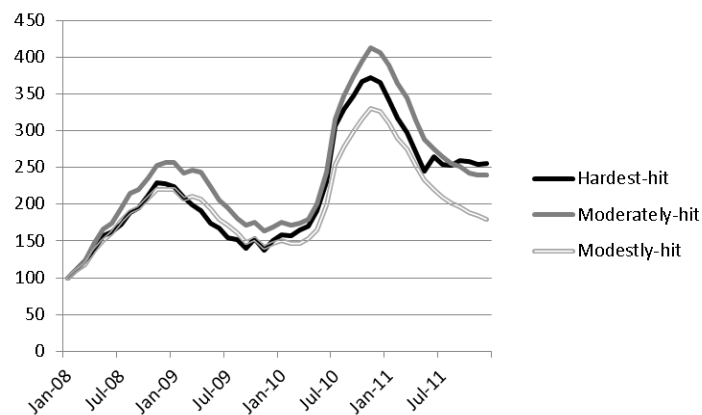
**Figure 3(c).** Map of New York City Tracts



**Figure 4(a).** Change in Fulton County REO Stock by Tract Type, January 2008 - December 2012 (Indexed to January 2008)



**Figure 4(b).** Change in Miami-Dade County REO Stock by Tract Type, January 2008 - December 2011 (Indexed to January 2008)



**Figure 4(c).** Change in New York City REO Stock by Tract Type, January 2008 - December 2012 (Indexed to January 2008)

