Tenure and Foreclosure: 
Identifying Investor-Owners and Assessing their Impact 
A Case Study of Chelsea, MA

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Introduction
Foreclosures and REO properties are a common concern among community nonprofit organizations, local government agencies, and researchers. Large stocks of REOs may lead to higher vacancy rates, reduced property maintenance and downward pressure on already falling house prices. In response, government agencies at the national, state, and local levels have been quick to adopt neighborhood stabilization policies to reduce the number of REO properties on the market. REO disposition strategies aimed at promoting the acquisition and rehabilitation of REO properties by occupant-owners, particularly new homeowners, are common. Examples of these programs include downpayment assistance, rehabilitation incentives, and homebuyer workshops.

While many cities use neighborhood stabilization funds to encourage homeownership and to keep REO properties out of the hands of speculators, patterns in tenure change and opportunities for collaborating with responsible investors seem to be under-explored. In addition, a better understanding of multifamily tenure could inform policy design. We think these issues are particularly important in urban areas with a greater diversity of housing stock (single family and multifamily) and historically higher rates of investor-ownership. In Massachusetts communities like Chelsea, units in small multifamily properties represent over half of the housing stock.

Unfortunately, very little research exists on the issue of tenure change from foreclosures or the role of investors in neighborhood stabilization. Additionally, it is hard for many researchers and community organizations to quantify the role of investors versus occupant-owners in their local housing markets. This paper introduces several data sources to help those interested in foreclosure patterns determine the tenure of an individual owner and estimate the magnitude of investors’ presence in a community.

Determining Tenure
There are several sources of data that can be used to determine if a property is investor or occupant-owned. We briefly summarize four sources of data that are available in Massachusetts and in many other states, though perhaps in different forms. These sources are owners’ mailing addresses, Declarations of Homestead, Residential Tax Exemptions, and Home Mortgage Disclosure Act data.

Owner’s Mailing Address- One way to determine if a property is occupant or investor-owned is to compare its address to its owner’s mailing address. Local assessors offices often keep records on where property tax bills have been sent for different properties over time. Sometimes these datasets include information for owners going back several decades. If an owner receives bills at the property, it is a good indication that the property is occupant-owned.

This address-based technique is not perfect. Occupant-owners may use post office boxes or have bills sent to third parties, which can complicate matters. In contrast, though rarer, investors may choose to have bills sent to rental properties, where they retrieve them. Moreover, there is often variation in the formatting and numbering of addresses, so care must be taken to standardize addresses if a researcher wants to automate the comparison of owner and property addresses.
Despite the limitations of the address-based technique for determining tenure, we feel it is a strong method, since data are available for most owners in recent years, the data are free and fairly easy to collect (if local assessors are willing to provide information), and we see little systematic bias of the method in over or under-counting investors.

**Declarations of Homestead**- Another way to determine tenure type is to check if an owner has filed a Declaration of Homestead. Under Massachusetts law, a homeowner can protect his or her home from creditors by filing a Declaration of Homestead with the county Registry of Deeds. An owner of multiple properties can file the Declaration for only one estate, his or her primary residence, so if an owner has filed a Declaration of Homestead for a property, it is a very good indication that the property is occupant-owned. A researcher can quickly determine if a Declaration has been filed by visiting www.masslandrecords.com and searching by property address or owner’s name. Care should be taken to search for Declarations in both the recorded land and registered land sections of the site.

Although filing the Declaration of Homestead offers substantial protection from select creditors, not all homeowners choose to file a Declaration, which currently requires a $35 fee. Because of this, researchers should not assume that owners without Declarations are investors. Moreover, most Declarations were filed after 2000, so this technique is not very useful for determining the tenure of owners who sold their homes prior to that year.

**Residential Property Tax Exemption**- At the time of this paper, fourteen cities in Massachusetts offer residential property tax exemptions for occupant-owners: Barnstable, Boston, Brookline, Cambridge, Chelsea, Everett, Malden, Marlborough, Nantucket, Somerset, Somerville, Tisbury, Waltham, and Watertown. Records on who receives tax exemptions can serve as a third method for determining if a property is occupant-owned.

Owners in Chelsea, for example, save about $600 to $700 per year, on average, by taking advantage of the exemption. Although regulations vary by town, homeowners typically must apply for the exemptions with the local assessor’s office and supply proof of occupancy, using documents such as utility bills. Assessors typically keep records on which properties received these exemptions, though they may not archive this information for very long, and it because it is somewhat personal, it may be difficult to acquire.

In addition to the difficulty obtaining the tax exemption data and the limited use of the tax exemption across Massachusetts, there are also some problems with the data’s reliability for determining tenure. For example, the exemptions may falsely identify occupant-owners as investors if an owner has not applied for an exemption. On the other hand, investors have a financial incentive to deceive the local assessor’s office about their occupancy status, which may

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3 The Declaration of Homestead does not protect an owner’s home from being sold to resolve prior existing debts and debts owed for state, federal, or real estate taxes, or court orders for support of a spouse or minor children (Suffolk Registry of Deeds 1999). In addition, first and second mortgages are considered exempted debts, which supersede the protections offered by the Declaration of Homestead (Barnstable Registry of Deeds). Policies vary by state, though most states offer Homestead Declarations in some form.
lead the exemption data to overestimate homeownership. Some cities, such as Chelsea, regularly revoke exemptions, which tempers this bias. We find that in Chelsea, under-participation by homeowners greatly outweighs the number of investors who wrongfully claim the exemption, so in net, using residential tax exemptions is likely to underestimate the number of occupant-owners in a community.

*Home Mortgage Disclosure Act*- HMDA data include an indicator of a borrower’s occupancy status, which can act as a fourth factor for determining tenure. Unfortunately, because public HMDA data are aggregated to the tract level, most researchers cannot use HMDA data to determine the tenure type of a particular owner. HMDA data may still be useful for understanding overall trends among borrowers in a neighborhood, though. Researchers can access free HMDA data for 2006 through 2008 from the Federal Financial Institutions Examination Council’s website (http://www.ffiec.gov/hmda/hmdaproducts.htm#LAR_TS). Overall, HMDA data are available for 80% of loans originated in the U.S. (Gerardi and Willen 2009, p. 10, citing Avery, Brevoort, and Canner 2006).

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4 We have access to a sophisticated dataset created by researchers at the Federal Reserve Bank of Boston. This dataset matches HMDA data with transactions-level data to determine the tenure type and other characteristics of individual borrowers.
Case Study: Chelsea

Using the data sources and methods summarized here, we can answer some preliminary questions about foreclosures in Chelsea. Relative to most other places in Massachusetts, Chelsea has suffered from a large number of REOs and drastically falling house prices. Figure 1 shows Chelsea’s relative position on these indicators. Between January 2008 and March 2009, the median price of homes sold fell over 32%. In contrast, the median tract in Massachusetts saw a decline in home prices of 18.3%. As of March 2009 there were 10.5 REOs per square mile in Chelsea, while the median concentration statewide was 0.3 per square mile.

Figure 1: Changes in Home Prices and Concentration of REOs for Massachusetts Zip Codes

![Figure 1: Changes in Home Prices and Concentration of REOs for Massachusetts Zip Codes](image)

Data source: Federal Reserve Bank of Boston 2009

We used the data sources mentioned above to determine the tenure for a sample of 408 Chelsea owners who owned single family, 2-family, and 3-family homes as of 2008.5 Using the address-based method, we were able to determine tenure for 382 owners (82%). For the remaining owners, we used Declaration of Homestead, tax exemption, and HMDA data to determine tenure. The flow-chart below diagrams this process. For owners without address data or for which address data made tenure unclear (like in the case of owners using local post office boxes), we checked for a Declaration of Homestead. If there was a Declaration, we classified the owner as an occupant-owner. Otherwise, we checked for a residential property tax exemption. If the owner received a tax exemption, we considered her an occupant-owner; if not, we used the

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5 We also identified 126 subsequent owners of these same properties, owners who purchased the homes from the initial owners in 2008. The process described here was used to determine the tenure of all but one of these owners.
occupancy variable in the HMDA data. After completing this process, we were able to determine tenure for all but 11 owners (3% of our sample).

Using property-level transactions data from the Warren Group, we separated the 397 owners for whom tenure was determined into three groups: owners without transactions in 2008, owners who sold their properties in arms-length (non-foreclosure) transactions in 2008, and owners who lost their homes to foreclosure in 2008.\(^6\) Within the foreclosure group, 43 owners’ properties, or about 38%, had not been re-sold to new, third-party owners by the end of 2008. In other words, the foreclosures were not “resolved”. Note that the largest group, owners who were not in foreclosure in 2008 and did not sell their homes, is a 10% random sample of all such owners. Subsequent calculations on in this paper are weighted to account for their underrepresentation in our dataset and to appropriately estimate population characteristics. After weighting, these owners made up 93% of our dataset. Of the remaining owners, 5% were in foreclosure and 2% sold their properties through a non-foreclosure sale.

**Figure 2: Chelsea Owners by 2008 Transaction Type**

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\(^6\) A few owners in the foreclosure group actually lost their homes in 2007, but are included in this group because their properties were REO in 2008.
Occupant-Owners own the bulk of Chelsea’s 1 to 3-family properties. Based on our sample, we find that 12% of 1 to 3-family properties in Chelsea were initially held by investors. Also as of 2008, 5% of 1 to 3-family properties were in foreclosure at some point during the year. Among transactions, there were over twice as many foreclosures in 2008 as there were non-foreclosure transactions. Within each transaction type, the percentages of investors were similar.

Table 1: Transaction Activity by Tenure of Original Owner

<table>
<thead>
<tr>
<th></th>
<th>Non-Foreclosure</th>
<th>Foreclosure</th>
<th>With Transactions</th>
<th>No Transactions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Investor-Owner</td>
<td>19</td>
<td>17%</td>
<td>6</td>
<td>11%</td>
<td>280</td>
</tr>
<tr>
<td>Occupant-Owner</td>
<td>95</td>
<td>83%</td>
<td>47</td>
<td>89%</td>
<td>2,020</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100%</td>
<td>53</td>
<td>100%</td>
<td>2,300</td>
</tr>
</tbody>
</table>

Test of independence: Pearson $\chi^2$ (2) = 2.078  p = 0.354

Among the 114 properties observed to be in foreclosure, all but three were held as REO following foreclosure. Of the 111 REO properties, 43 (39%) were unresolved and still held as REO at the end of 2008.

Multifamily structures dominate the 1-3 family housing stock in Chelsea. Just 28% of the 1-3 family housing stock is comprised of single family homes. Two-family homes are the most frequent structure type (42%). Nonetheless, 88% of the properties in this sample have occupant-owners. The rate of owner-occupation is the lowest among three-family structures (72%). Notice that the rate of owner-occupation by property should not be interpreted as the homeownership rate typically measured across units.

Table 7: Structure Type by Tenure of Original Owner

<table>
<thead>
<tr>
<th></th>
<th>Single Family</th>
<th>2-Family</th>
<th>3-Family</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Investor-Owner</td>
<td>13</td>
<td>2%</td>
<td>87</td>
<td>8%</td>
</tr>
<tr>
<td>Occupant-Owner</td>
<td>677</td>
<td>98%</td>
<td>946</td>
<td>92%</td>
</tr>
<tr>
<td>Total</td>
<td>690</td>
<td>100%</td>
<td>1,033</td>
<td>100%</td>
</tr>
</tbody>
</table>

Test of independence: Pearson $\chi^2$ (1) = 243.196  p < 0.001

One-quarter of Chelsea’s owners have taken out a subprime mortgage. Based on the subsample matched with HMDA data, we estimate that 25% of 1-3 family properties are financed at purchase and/or refinanced with loans provided by subprime lenders.\(^7\) Further, subprime lenders

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\(^7\) The Federal Reserve Bank of Boston has adapted the dataset using a list of subprime lenders developed by the Department of Housing and Urban Development. Loans originated by one of the designated lenders are considered to be subprime. This procedure and its accuracy are described in greater detail by Foote et al. (2008, p. 295).
primarily make loans to occupant-owners. Among those owners whose properties were in foreclosure in 2008, nearly 75% had taken out a subprime loan. Over 86% of these subprime borrowers in foreclosure were occupant-owners.

**Investors held properties longer than occupant-owners.** The median length of tenure was 11.7 years among all initial owners in the dataset. The median length of tenure for both groups of owners involved in transactions (whether through foreclosure or an arms-length sale) was just 3.6 years. Regardless of transaction activity in 2008, investors had longer median tenure experiences than occupant-owners.

**There is little evidence of net tenure change in Chelsea.** Somewhat counter to expectations, the majority of transacting properties initially owned by investor-owners (15 of 20) transfer out of investor-ownership and become held by occupant-owners or non-profits. Among transacted properties, 19% of foreclosed owner-occupied properties become investor-owned, while 13% of non-foreclosure sales are transfers to investors. Overall, the churn between tenures (including some transfers to non-profits) yields very little net change in the rate of investor-ownership among the subset of properties that resolved foreclosure or otherwise sold in 2008. Further, only one of the three properties that avoided REO was bought by an investor. A non-profit and an occupant-owner bought the remaining two.

**Not only is there little tenure change, there is little evidence of flipping in our sample.** Of the 71 foreclosures that were resolved in 2008, we observe subsequent transactions for only three. Two of these sales occurred at the end of 2008, and one in the first half of 2009. The short period of time that we examine the overall low-level of market activity in Chelsea limits our insights about the potential for tenure change and flipping at this point in time. We also suspect that patterns could be different among foreclosures resolved in 2009 and 2010.

**Subprime loans, short durations of ownership, and investor-ownership are correlated with higher rates of foreclosure.** We find that investors were over three times as likely as occupant-owners to enter foreclosure in 2008. However, owners with subprime mortgages were over six times as likely to enter foreclosure as those with prime loans or no loans. Importantly, subprime loans were more likely to be made to occupant-owners. Therefore, subprime mortgages made to occupant-owners were the most important factor influencing foreclosures. In addition, long-time owners and those owners who applied for building permits were somewhat less likely to go into foreclosure than newer owners. Other characteristics, like structure type, are not conditionally correlated with the likelihood of foreclosure in our sample.
Figure 3: Likelihood of Foreclosure: Odds Ratios for Owner Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor-Owner</td>
<td>3.62</td>
</tr>
<tr>
<td>Subprime Mortgage</td>
<td>6.50</td>
</tr>
<tr>
<td>Each Additional Year of Ownership</td>
<td>0.85</td>
</tr>
<tr>
<td>Owner Filed at Least One Building Permit</td>
<td>0.35</td>
</tr>
</tbody>
</table>

Interpretation: Odds ratios quantify the relative likelihood of foreclosure, holding all other variables constant; i.e., owners with subprime mortgages were 6.5 times as likely to experience foreclosure than those without subprime mortgages, given that the owner was an occupant-owner with an average length of tenure and no building permits filed.

Note: These ratios are statistically significant at the .05 level. Additional controls: structure type

Duration of the foreclosure process varies significantly, though it is unclear why. Among properties with resolved foreclosures, the duration of the foreclosure process, from the most recent foreclosure petition to the date the foreclosure was resolved, averaged about nine months, though it can range from seven weeks to over two years. In addition, because this measures duration of resolved foreclosures only, we expect that the overall duration of foreclosure is longer. There is no significant difference in the duration of foreclosure based on the tenure of the original owner, controlling for other owner or property characteristics considered throughout this analysis. These other characteristics also did little to explain how the duration of the foreclosure process varies across properties. We did not include any characteristics of the foreclosing institution in this analysis, which remains an opportunity for further research.

Conclusion

In this paper we discuss different sources of data that can be used to determine an owner’s tenure type. We believe that comparing a property’s address to its owner’s mailing address, as recorded by tax assessors, is a fairly reliable, straightforward, and universally-applicable method for determining tenure. Using this method, combined with other data sources, we determine the tenure of a sample of property owners in Chelsea, MA. We present preliminary findings on the relationships between tenure and foreclosure, type of structure owned, subprime mortgage use, and property investment by owners of 1 to 3-family properties.

While according to the Census the majority of units in Chelsea are renter-occupied, we find that most structures (88%) have occupant-owners living in at least one unit. About 25% of the
original owners studied have taken out a subprime purchase or refinance loan, and as expected, owners with subprime loans were more likely to enter foreclosure. Rates of foreclosure are comparable among investor and occupant-owners; in 2008 roughly 5% of the 1-3 family housing stock was in some stage of foreclosure. As suggested in previous studies, nearly all of these foreclosures became REO, thus justifying REOs as the current focus of attention for neighborhood stabilization policies. We find little evidence of net tenure change or “flipping” of post-foreclosure and non-foreclosure properties, at least through July 2009. In sum, there is currently little evidence that investors are largely contributing to neighborhood instability in Chelsea following foreclosures. While we provide evidence that investor-owners are more likely than occupant-owners to enter foreclosure when controlling for other owner and property characteristics, we also find that owners using subprime mortgages were about six times as likely to enter foreclosure as those with prime loans or no mortgage. The vast majority of the subprime mortgage holders in this sample are owner-occupiers.

More research should be conducted to answer additional questions about foreclosures and tenure in Chelsea and other Massachusetts towns. Because issues of tenure are often imbedded in policy discussions, we suspect that care should be taken to identify differences between the roles of investors and occupant-owners in urban neighborhoods comprised of different sorts of housing stock.
References


Interview and Data Acknowledgements

The following individuals were interviewed and/or provided useful data for this project:

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George Reuter, Special Projects Assistant, Chelsea Neighborhood Developers
Ken Stein, Director, City of Chelsea Assessor’s Office
Paul Willen, Senior Economist and Policy Advisor, Federal Reserve Bank of Boston
George Young, Suffolk Registry of Deeds