# Wall Street and the Housing Bubble

# Online Appendices

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## Appendix A: Data

## Appendix B: Supplemental Analysis

## Appendix C: Data Collection Manual

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# Wall Street and the Housing Bubble

## Appendix A
## Data

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This appendix contains more details about sampling methods and data construction. Section A1 provides details about our securitization agent sample, while Sections A2 and A3 provide details for the equity analyst sample and lawyer sample. Section A4 contains details about the computation of transaction intensities.

## A1. Securitization agents

The analyses in this paper rely on contrasting characteristics and behaviors of participants at the 2006 American Securitization Forum (ASF 2006) with those of two control groups: equity analysts and lawyers. As a first step, we found a comprehensive list of the participants in ASF 2006 on the ASF website and used it to build a sample of securitization agents based off of a randomly selected list of conference participants. The participant list includes each participant's first name, last name, company for whom they work, and whether they work on the buy (investor) or sell (issuer) side. As of the present date, this list of ASF 2006 participants is no longer available on the ASF website, but we retained copies of the list of ASF 2006 meeting participants. In that meeting, there were 1,045 investors and 714 issuers, for a grand total of 1,759 participants in total. Of these 1,759, we randomly sample enough participants so that our dataset contains 400 securitization agents with matched records in Lexis/Nexis Public Records. We make sure to oversample ASF 2006 participants from prominent institutions associated with the financial crisis. For our purposes, these are AIG, Bank of America, Bear Stearns, Citigroup, Countrywide, JP Morgan Chase, Lehman Brothers, Merrill Lynch, Morgan Stanley, Washington Mutual, Wachovia, Barclays, Deutsche Bank, HSBC, UBS, Credit Suisse, and Mellon Bank.

Next, we collected data on the sampled ASF 2006 meeting participants in Lexis/Nexis Public Records. Lexis/Nexis Public Records (from herein L/N) is a service that aggregates information from various county-, state-, and national-level public records into a cohesive, searchable database. The data provided in L/N is vast, and, in general, contains many types of public records data available in the United States. The data in L/N are organized such that, upon identifying a particular person, organization, or location, the L/N user is able to find all the public records data associated with that person, organization, or location. For instance, if the L/N user were to successfully identify a person, the user would know the month and year of the person's birth, the first five digits of their social security number, and any locations associated with that person. For some people, additional information is

available, including gender, current phone number, criminal records, divorce filings, bankruptcy filings, past and present employers, voter registrations, and professional certifications.

In order to collect Lexis/Nexis data on the securitization sample, we first uniquely identify each person in Lexis/Nexis. As the ASF 2006 participant list provided only the person's name and employer, in order to uniquely identify each person, we first find background details about each person based on information available on the Internet. For most participants, this means searching for the person and firm on Google and using the search results to ascertain the person's location and approximate age. Our search for such biographical information was simplified tremendously by the LinkedIn profiles maintained by several of the people in our sample, often containing the year of college graduation, which we use to form initial bracketed estimates of age as a filter within L/N. Using data found via the Internet, we input the name, location, and initial bracket of age estimates of each of the sample ASF participants into the Lexis/Nexis web form for Comprehensive Person Search and uniquely identify 400 securitization agents. This process required sampling 613 ASF 2006 participants ex post in order to uniquely identify 400 securitization agents on L/N. The 205 participants not in our securitization sample are either not found at all in L/N (29), not uniquely identifiable on L/N given the information from our Internet searches (50), not involved in real estate mortgage loan securitization (94), not mid-level managers (13), or are found to be living outside the US (27).

Once we found unique L/N records for 400 securitization agents, we used L/N to collect information on their real estate-related personal transactions. We used the following public records data from Lexis/Nexis: deed transfer records, property tax assessment records, utility connection records, and mortgage records. All of these records are available to Lexis/Nexis users via a Property Report webpage. For each person, we first locate all properties owned anytime between 2000 and 2010. This is done by finding all properties owned between 2000 and 2010 by the person, by someone with whom the person has owned another property (e.g., a spouse), or by a trust of which the person is a beneficiary.[1] 58 of the 400 analysts do not own any properties at all. For each of the properties owned by the remaining 342 analysts, we collect the following information: location, purchase date, purchase price, purchase loan amount, purchase loan interest rate, purchase loan period, purchase loan type, refinance loan amount, refinance loan interest rate, refinance loan period, refinance loan type, sale date (if sold), sale price (if

[1] Living trusts generally make abundantly clear its beneficiaries in the name of the trust. For instance, if John Smith is the only beneficiary for a living trust which owns a particular property, the deed record for the property purchase will have "Smith John Living Trust" listed as the purchaser. Very often, they also put the beneficiaries name in a separate field.

sold), property type, building square footage, bedrooms, bathrooms, and property acreage. While not all of this information is available for all properties, L/N provides a relatively complete picture of the real and financing transactions associated with each residential property for all of our samples. For most of the properties, deed transfer records provide the purchase date, purchase price, sale date, and sale price information for our sample members' ownership of a property. For some of the properties, tax assessment records fill in missing purchase and sale information. The tax assessment records also provide information regarding the type of the property (single-family houses, condominiums, vacant land, commercial properties, multi-family dwellings, office buildings, planned developments, and town houses), as well as, in some cases, building square footage, number of bedrooms and bathrooms, and total acreage. The mortgage records provide information on all financings associated with each house, including the loan amount, loan interest rate, loan period, and loan type (fixed-rate or adjustable-rate). We collect financing information for both purchase loans and refinancings.

For properties where we are missing purchase or sale date information, we proceed as follows. For purchase dates, we confirm that there is no information in either tax assessment or mortgage records that may provide purchase date information. If there is not, then we assume that the property was purchased by our person prior to the start of our data window (i.e., prior to January 1, 2000). If a property is missing a sale date, we use tax assessment records to confirm that no one has owned the property after our person. If no one has, then we assume that our person still owns the property.

After collecting all the necessary data from L/N for our securitization agents, we collect additional information on them from LinkedIn. As explained above, many of the participants from the ASF 2006 meeting maintain LinkedIn profiles. As such, we are able to develop an employment history for each analyst from 2000 to 2010. The employment history is composed of two parts. First, we create an annual indicator of whether the person had no changes in employment that year, gained new employment that year, lost employment that year, or gained and lost employment that year. We code a job loss in a year as occurring if employment was lost during that year in any way.

We use the ArcGIS geocoding software to round out our information on the securitization agents' properties. In particular, we use ArcGIS to get the census tract of each property, the distances between any two properties owned by an agent, and a graphical representation of the geographic distribution of the properties owned by all securitization agents.

## A2. Equity analysts

The first control group for our analyses consists of equity analysts. Equity analysts for our sample are chosen at random out of the universe of financial analysts covering in 2006 any companies included in the S&P 500 in 2006 that are not part of the homebuilding sector. To do this, we download from I/B/E/S the names and firms of equity analysts covering in 2006 companies included in the S&P 500 in 2006 and not in sectors with SIC codes 152, 153, and 154. The complete universe of these analysts numbers 2,978. From that, we randomly sample enough such analysts to create a sample of 400 equity analysts with data from L/N; ex post, we needed to draw 469 such equity analyst names. The 69 analysts that we drew but are not in our final sample are either living outside the United States (25), deceased (1), not identifiable uniquely in L/N (27), or not found in L/N (16). Having identified our 400 equity analysts in L/N, we proceed with the same data collection exercise that is detailed above for securitization agents, pulling information from L/N, GIS, and LinkedIn.

## A3. Lawyers

The second control group for our analyses consists of lawyers. In order to construct our sample of lawyers, we match each member of the securitization sample on age and location with lawyers drawn from the Martindale-Hubbell Law Directory (herein referred to as M-H). The Martindale-Hubbell Law Directory is a directory of lawyers that has been in publication since the mid-19$^{th}$ century and provides biographical and professional data on every lawyer in the United States. In particular, each entry of M-H provides information such as the lawyer's name, employer, position, address of the employer, date of birth, legal fields of specialization, and the law school from which the lawyer graduated.

Our matching process is as follows. After collecting property data for our 400 securitization agents from L/N, our first step is to generate a list of potential matching lawyers for each securitization agent, matched on age and the work location of the lawyers.[2] To match on location, we look for lawyers with work locations in all counties associated with all properties owned by the securitization agent in 2000.[3] For properties in CBSAs, we also include all counties associated with a property's metropolitan division (if the CBSA is divided into such divisions), or all counties associated with the CBSA if the CBSA is

[2] Home locations are not available in L-N. We implicitly assume that a lawyer's work location is a proxy for their home location.
[3] For agents who do not own property in 2000, we use the property owned most recently after the year 2000.

not divided into metropolitan divisions. We include these extra counties to generate lists with a reasonable number of potential matches; including only the specific counties of a securitization agent's properties sometimes generates lists with very few potential matches which may be empty once intersected with our age matching criterion. To match on age, we look for lawyers with an age at most five years older or younger than the securitization agent, where age is computed as of 2011. For each of the 342 securitization agents with property information, we feed M-H a custom search query that generates a list of lawyers who simultaneously match the securitization agent on both of these location and age dimensions.

Next, within each of the lists of matched lawyers, we exclude all lawyers who possess one or more real estate-related specializations (i.e., we exclude any lawyers who have one or more specializations with the words "Real Estate" in the name). Next, we remove any lawyer entries that are duplicated across lists so that we do not have any lawyers that are used as a match for more than one securitization agent.

This leaves us with 342 cleansed lists of lawyers matched to each of our securitization agents with property data. From each of these lists, we randomly choose one lawyer each, providing us with 342 lawyers in our lawyers control group. Since we do not possess location data on the 58 securitization agents without property data, we randomly choose 58 of the 342 lists of matched lawyers from which to sample an additional lawyer, which brings our lawyer sample up to the desired size of 400. This approach essentially samples matching lawyers for the 58 securitization agents who never own property from the empirical distribution of locations of securitization agents who do own property.

As M-H provides detailed information on each of the lawyers we sample, it is relatively easier to uniquely identify the lawyers in L/N. As a result, in order to attain the 400 lawyers required for our sample, we only need to draw 406 lawyers from the lawyer lists. For the 6 instances in which the initially sampled lawyer is not uniquely identified in L/N, we randomly choose another lawyer from the same list, so that the new lawyer also matches the securitization agent. The 6 instances where we could not find the initial lawyer arise from situations where we could not identify the lawyer uniquely in L/N (3) or could not find the lawyer in L/N (3). Having identified 400 lawyers in L/N, we proceed with the data collection exercises for L/N and GIS data detailed above. We do not collect LinkedIn data for the lawyers sample.

**A4. Transaction intensities**

In the simplest conceptual setup where a person may only engage in one transaction per year, a basic estimate of the intensity of transaction type *k* occurring in year *t* is the number of people who conduct transaction *k* in year *t* divided by the number of people who could have conducted that transaction in that year. In this setup, the number of people eligible for each type of transactions at the beginning of the year is given in Table A1.

However, one person may engage in more than one type of transaction per year. For example, a non-homeowner at the start of year *t* may buy a first and second home during the year. In this case, the person was a non-homeowner at the beginning of year *t* and bought a second home in year *t*. On the one hand, this may suggest that everyone in each sample is eligible to make every type of transaction each year. However, measuring the number of people eligible each year as the whole sample implicitly assumes that each person *i* in the sample has an equal probability of conducting transaction *k* irrespective of her homeowner status at the beginning of the year, which is clearly not true. For example, a non-homeowner at the beginning of the year has a much lower probability of buying a second home during the year than a homeowner, since the non-homeowner must buy two houses. Taking the whole sample as the number of eligible people ignores valuable conditioning information about whether she is a homeowner and will mix together two distinct sets of outcomes.

A full treatment of this problem requires creating multiple new transaction types – for example, buying a second home when beginning the year as a non-homeowner, buying a first home during the year when beginning the year as a homeowner, and so on. Since these types of multiple-transaction outcomes are infrequently observed, we instead modify our framework by counting the number of "adjusted homeowners," defined as the number of homeowners at the beginning of year *t* plus the number of non-homeowners who bought a first home during year *t*. The number of people eligible to buy a second home or swap a home during year *t* is this adjusted homeowners group. Although this still mixes the two channels, it mitigates the issue by only including the non-homeowners who in fact buy a first home during the year.

Similarly, we create an "adjusted non-homeowners" group, which adds together people who are not homeowners at the beginning of year *t* with the number of people who divest their last property during the first six months of the year, and use this as the number of eligible people for buying a first home.

Note that the number of adjusted homeowners plus the number of adjusted non-homeowners may exceed the total number of people in each sample.

We split the number of adjusted homeowners into those with two houses or more at any point during year *t* (or on the last day of year *t-1*) and label them adjusted multiple homeowners. Adjusted multiple homeowners are eligible to divest a second home. Because one may sell off houses in rapid succession, we take all adjusted homeowners as eligible to divest their last home. We summarize the adjustments for homeowners, non-homeowners, and multiple homeowners in Table A2 and the people eligible for each type of transaction after accounting for the possibilities of multiple transactions per year in Table A3.

**Table A1: Eligible People for Different Transactions**

| Transaction Type | Eligible People That Year |
|---|---|
| Buy a first home during the year | Non-homeowners at beginning of year *t* |
| Buy a second home during the year | Homeowners at beginning of year *t* |
| Swap a home (up, down or missing) during the year | Homeowners at beginning of year *t* |
| Divest any home during the year | Homeowners at beginning of year *t* |
| Divest a second home during the year | Homeowners with multiple homes at beginning of year *t* |

**Table A2: Adjustments to Different Groups**

| Group | Definition |
|---|---|
| Adjusted homeowners at beginning of year *t* | Homeowners at beginning of year *t* plus non-homeowners who buy a first home during year *t* |
| Adjusted non-homeowners at beginning of year *t* | Non-homeowners at beginning of year *t* plus those who divest their last property in the first six months of year *t* |
| Adjusted multiple homeowners at beginning of year *t* | Adjusted homeowners at beginning of year *t* who have more than two houses at any point during the year *t* |

**Table A3: Eligible People for Each Type of Transactions after Adjustments**

| Transaction Type | Eligible People That Year |
|---|---|
| Buy a first home during the year | Adjusted non-homeowners at beginning of year *t* |
| Buy a second home during the year | Adjusted homeowners at beginning of year *t* |
| Swap a home (up, down or missing) during the year | Adjusted homeowners at beginning of year *t* |
| Divest any home during the year, including the last | Adjusted homeowners at beginning of year *t* |
| Divest a second home during the year | Adjusted homeowners with multiple homes at beginning of year *t* |

# Wall Street and the Housing Bubble

## Appendix B
## Supplemental Analysis

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This appendix contains details and supplemental analyses discussed in the paper. Section B1 provides more descriptive statistics about our sample. Section B2 reports our main results using a logit model instead of OLS. Section B3 reports results for first home purchases. Section B4 analyzes details of second home purchases. Section B5 provides additional analyses regarding refinances. Section B6 examines divestitures and job losses. Section B7 describes the performance index in more detail. Section B8 describes the computation of portfolio value-to-income ratios. Section B9 describes whether securitization agents "lived happily ever after" in homes purchased during the 2004-2006 period.

**B1. Descriptive statistics**

Table B1 provides more details about the companies who employ our securitization agent sample, as well as the distribution of reported titles. Table B2 presents the geographical distribution of properties by census region as well as select metropolitan areas. The properties in our sample are plotted on a map in Figure B1.

Table B3 summarizes transaction prices each year. On an unconditional basis, average purchase prices are $760K for securitization agents, $1.032M for equity analysts, and $485K for lawyers. Purchases tend to be most frequent in the 2004-2005 period for securitization agents and equity analysts.

However, examining annual purchase and sale activity is reduced form in that it masks the underlying choices of homeowners and non-homeowners. Table B4 breaks down purchases and sales by transaction type over the entire period 2000-2010. The number of purchase transactions exceeds the number of sale transactions, since a number of people may be still living in homes they purchased. The most common purchase type observed is buying a first home. Buying a second home and swapping a home for a more expensive one are the next most common purchases. Among sales, a sale involved in any type of swap is the most common transaction.[1]

Table B5 reports the number of people contributing variation to the computation of transaction intensities each year, as noted in Section 4.1 of the paper.

**B2. Non-linear models**

[1] The total number of swap sales and swap purchases over 2000-2010 may not exactly match as there may be corresponding swap legs six months before and after this period.

Table B6 re-estimates equation (1) and the results in Table 4, where we substitute an indicator for whether or not a person divests a property instead of the number of divestitures as the left-hand side variable and use a logit model to estimate the conditional expectation function. We control for the same set of variables as in Table 4. We report both year-specific coefficients for the securitization group along with average marginal effects (the differential probability of a securitization agent divesting a house each year relative to an equity analyst or lawyer). Standard errors for average marginal effects are computed using the delta method. Table B7 analogously re-estimates the results in Table 5 of the paper.

**B3. First home purchases**

Table B8 presents regression-adjusted differences following the same specification as in equation (1) in the paper, replacing the left-hand side variable with the number of first home purchases, conditioning the panel each year to non-homeowners, and omitting the $MultiHO_{it}$ term as it does not apply to non-homeowners. Evidence of $\beta_t < 0$ during the 2004-2006 period would suggest cautiousness in these regressions. If anything, there are more first home purchases for securitization agents than equity analysts, particularly in 2006. Raw intensities are plotted in Figure B2.

**B4. Second home purchases/swap-ups**

Table B9 re-computes the annual intensity of buying a second home or swapping into more expensive homes, with intensities pooled across two-year intervals. Specifically, it estimates via OLS:

$$E[\#BuySecondOrSwapUp_{it} | HO_{it-1} = 1] \qquad (B1)$$
$$= \alpha_{s(t)} + \beta_{s(t)} \times Securitization_i + \sum_{j=1}^{7} \delta_j \, Age_j(i,t) + \lambda \, MultiHO_{it-1}.$$

The regression-adjusted differences are the $\beta_{s(t)}$ coefficients. Consistent with the results in the paper, we see stronger intensities for securitization analysts in the 2002-2003, 2004-2005, and 2006-2007 periods.

Table B10 examines whether second home purchases and swap-ups were more likely to occur in non-recourse states for securitization agents when compared to equity analysts. In this analysis, we condition on whether they already own a home in a non-recourse state in order to examine whether

agents consciously buy homes in a state with recourse status other than the one of their current state. This is to rule out any heterogeneity that may arise between the average initial recourse status of securitization agents and equity analysts. Specifically, if we let $j$ index properties, we estimate the following equation using OLS among the sample of homes that were purchased as second homes:

$$E\left[NR_j | SecondHome_j = 1\right] \qquad (B2)$$
$$= \alpha_{s(Purchaseyear_j)} + \beta_{s(Purchaseyear_j)} \times SecuritizationOwner_j$$
$$+ \gamma\ OwnerHasNRProperty_{purchaseyear_j - 1,}$$

where $NR_j$ is an indicator for whether home $j$ is in a non-recourse state, $SecuritizationOwner_j$ is whether the buyer is in the securitization sample, $purchaseyear_j$ is the year the property was purchased, and $OwnerHasNRProperty_{purchaseyear_j - 1}$ is an indicator for whether the purchaser had existing property in a non-recourse state in the year prior to the purchase of the second home. We allow for time-varying coefficients in $\alpha$ and $\beta$, where *s(t)* maps years *t* into bi-year groupings (2000-2001, 2002-2003, and so forth). The results indicate that securitization agents are no more likely to purchase homes in non-recourse states than recourse states.

Table B11 examines whether second home purchases were more likely to be condominiums for securitization agents relative to equity analysts. We first estimate the intensity of second-home condominium purchases, analogous to equation 1 in the text:

$$E[\#BuySecondHomeThatIsCondo_{it} | HO_{it-1} = 1] \qquad (B3)$$
$$= \alpha_{s(t)} + \beta_{s(t)} \times Securitization_i + \sum_{j=1}^{7} \delta_j\ Age_j(i,t) + \lambda\ MultiHO_{it-1}.$$

Panel A reports these intensities pooled across bi-year intervals and shows that the intensity was higher among securitization agents in the 2004-2005 period. By Bayes' rule, we would also expect the probability that a second home purchase is a condominium to be higher for securitization agents than equity analysts. We compute this differential probability by estimating the following using OLS:

$$E\left[IsCondo_j | SecondHome_j = 1\right] \qquad (B4)$$
$$= \alpha_{s(Purchaseyear_j)} + \beta_{s(Purchaseyear_j)} \times SecuritizationOwner_j,$$

where $j$ indexes properties, $IsCondo_j$ is an indicator for whether a property is a condominium as indicated on the deed, and $SecuritizationOwner_j$ is whether the buyer is in the securitization sample. The results in Panel B indicate that, conditional on a home being purchased as a second home in 2004-2005, the probability that it is a condominium is higher if the purchaser was a securitization agent.

Table B11 also examines the average distance to the property purchased as a second home and whether the distance was larger for securitization agents than equity analysts. We re-estimate equation (B4) but replace the left-hand side variable with the median distance to any existing property the buyer owns contemporaneously. The results show no significant difference in distance between securitization agents and equity analysts.

**B5. Refinances**

In this section, we investigate the loan amount for each refinance that we observe and compute the change in debt over the previous home loan. Depending on the type of refinance, this change in debt is either the difference between the loan amount of the refinance and the remaining debt in the existing mortgage, as in the case of a pure refinance of the primary mortgage, or the face value of the new debt, as in the case of add-on loans such as home equity loans, second mortgages, and home equity lines of credit.[2] If agents drew down their equity during the bubble period, debt should have increased.

The remaining debt on the existing mortgage is the present value of remaining payments discounted by the interest rate at issuance. However, we do not observe the interest rate for all homes. Out of the 2,304 financings between 2000 and 2010 for our sampled groups (1,836 purchase and refinances of primary mortgages and 468 add-on loans), we observe interest rate data for 264 finances. As a result, out of the 1,007 primary refinances between 2000 and 2010, we observe interest rate data on the *previous* loan for only 107 refinances. Instead, we use the benchmark interest rate that was prevailing when the previous loan was issued as a proxy for that loan's interest rate. Our benchmark rate for loans issued in

[2] To bias the results in favor of finding equity draw downs, we assume that the change in debt for a home equity line of credit equals the maximum credit limit. That is, we assume that agents draw down their entire credit line immediately.

1998 or later is the weekly national average 30-year jumbo rate, as reported in the BankRate surveys provided by Bloomberg from 1998 onwards. For mortgages issued prior to 1998, our benchmark rate is the average of the national 30-year conforming rate reported by lenders monthly to Freddie Mac for their Primary Mortgage Market Survey. We combine this information with the loan amount and time elapsed since the previous financing to calculate the present value of the payments remaining on the previous loan at the time of refinancing.

For each person who refinanced, we compute the total change in debt each year by summing the change in debt over all refinances occurring during that calendar year. Figure B3 plots the total change in debt each year for the average securitization agent and the average equity analyst who refinanced. Before 2005, the annual change is generally near zero for both groups, suggesting that both securitization agents and equity analysts maintain the same principal while taking advantage of falling interest rates. In 2005, the change in debt among equity analysts who refinanced remains near zero whereas that of securitization agents is somewhat positive. However, this difference between the two groups is not statistically significant.

**B6. Job losses**

By Bayes' rule, the expected number of divestitures in any year for homeowning securitization agents or equity analysts can be decomposed as:

$$E[\#Dvst_{it}] = E[\#Dvst_{it}|JL_{it} = 0] + (E[\#Dvst_{it}|JL_{it} = 1] - E[\#Dvst_{it}|JL_{it} = 0]) \times \Pr[JL_{it} = 1], \quad (B5)$$

where $\#Dvst_{it}$ is the number of divestitures for person *i* in year *t*, and $JL_{it}$ is an indicator for whether a job loss was experienced for person *i* in year *t*. Each one of these expectations and probabilities is also conditioned to the subsample of homeowners, i.e., $HO_{it-1} = 1$, which we have omitted in notation for brevity. This equation makes clear that the divestiture intensity for any group is the sum of a baseline divestiture intensity among non-job-losers ($JL_{it} = 0$) and the difference in conditional expected divestitures between job-losers ($JL_{it} = 1$) and non-job-losers, where the latter is weighted by the probability of losing a job, $\Pr[JL_{it} = 1]$.

In order to operationalize this decomposition, we need to restrict our attention to the sub-sample of people for whom we can assess job outcomes using LinkedIn. Among people in LinkedIn, we code whether a person changed jobs every year to give us an estimate of $\Pr[JL_{\mathrm{it}} = 1]$ for every year. These are plotted in Figure B4, while Table B12 reports the pooled job loss intensity over 2007 and 2008. Equity analysts actually experienced a higher average annual rate of job loss than securitization analysts, 25% versus 20%, during these two years. This is a marked increase over previous years for both groups.

The regression-adjusted difference reported in Table 4 in the paper represents the difference in the divestiture intensity between securitization agents and equity analysts; that is, it represents the left-hand side of equation (B5) for securitization agents minus the same for equity analysts. Within the LinkedIn sub-sample, the average annual intensity pooled across 2007 and 2008 for each group, as well as the difference between the two intensities, is reported in Table B12. We pool intensities in this way due to the small absolute number of divestitures observed in 2007 and 2008. Consistent with Table 4, this intensity is slightly higher for securitization agents than equity analysts.

We decompose this difference in intensities using equation (B5). Specifically, we can compute the right-hand side of equation (B5) for securitization agents and equity analysts, and then subtract two in order to decompose the difference. Specifically, we estimate the following equation via OLS within the annual panel of homeowning securitization agents and equity analysts in 2007-2008 for whom we have LinkedIn data:

$$E[\#Dvst_{it}] = \alpha + \beta\, JL_{it} + \gamma\, S_i + \delta\, (JL_{it} \times S_i),$$

where $S_i$ is an indicator for whether person $i$ is a securitization agent. Standard errors are clustered at the person-level. Estimates from this equation may be combined to give the decomposition in equation (B5) for each group. Specifically:

$$\begin{aligned}
E[\#Dvst_{it} | JL_{it} = 0, S_i = 0] &= \alpha, \\
E[\#Dvst_{it} | JL_{it} = 0, S_i = 1] &= \alpha + \gamma, \\
E[\#Dvst_{it} | JL_{it} = 1, S_i = 0] &= \alpha + \beta, \\
E[\#Dvst_{it} | JL_{it} = 1, S_i = 1] &= \alpha + \beta + \gamma + \delta.
\end{aligned}$$

The difference between these two groups can also be decomposed using these coefficients. Specifically:

$$\gamma = E[\#Dvst_{it}|JL_{it} = 0, S_i = 1] - E[\#Dvst_{it}|JL_{it} = 0, S_i = 0],$$
$$\gamma + \delta = E[\#Dvst_{it}|JL_{it} = 1, S_i = 1] - E[\#Dvst_{it}|JL_{it} = 1, S_i = 0],$$
$$\delta = (E[\#Dvst_{it}|JL_{it} = 1, S_i = 1] - E[\#Dvst_{it}|JL_{it} = 0, S_i = 1])$$
$$- (E[\#Dvst_{it}|JL_{it} = 1, S_i = 0] - E[\#Dvst_{it}|JL_{it} = 0, S_i = 0].$$

As in equation (B5), each one of these expectations is also conditioned on $HO_{it-1} = 1$, which we have omitted in notation for brevity.

Table B12 reports the results of this decomposition. Qualitatively, within job-losers, the intensity of divestiture among securitization agents minus the intensity for equity analysts is 0.051, while the same difference in intensities within non-job-losers was 0.013. Statistical significance is difficult to tease out due to the small absolute number of divestitures during this period. We check our results using total sales and find more statistically and economically significant results. In particular, the difference in sale intensity between securitization agent and equity analyst non-job-losers is 0.012, but is 0.115 within job-losers (and is statistically significant at the 5% level). The lack of difference among non-job-losers suggests that selling during this period was not related to market timing. Indeed, the significant difference between job-losers suggests that securitization job-losers were overextended relative to equity analyst job-losers.

The difference-in-difference is 0.104 and statistically significant at the 10% level. This indicates that the difference in selling intensity among securitization agent job-losers with that of equity analyst job-losers is statistically larger than the difference in selling intensity among securitization agent non-job-losers and equity analyst non-job-losers. This reinforces the idea that the difference in the overall divestiture and sale intensities between the two groups is related to a higher intensity of divestitures among job losers within the securitization agent group. This holds even though securitization agents lost slightly fewer jobs during this period.

**B7. Performance Index**

We begin by assuming time flows quarterly, and we mark the value of each house up or down every quarter from its actual observed purchase price and date in accordance with quarterly zip-code level home price indices from Case-Shiller. For houses that fall outside areas followed by Case-Shiller zip-

code indices, we use Case-Shiller county-level home price indices if available, followed by FHFA CBSA home price indices, followed by the national home price index as a last resort. This last case only arises for 51 houses out of 1,887 in our sample. If no purchase price is available, or if the purchase date falls before the first date that we have an available index value, we mark the value of each house in every quarter up or down from the sale price on the sale date, if the house has been sold. Failing this, we try to assign the value based on the purchase price and the first available home price index. When all else fails, we assign the initial value of the house as the median initial value of all houses within each group during the purchase quarter computed under the above method. As a robustness check, we also evaluate performance where we assign the value of each house in the initial quarter to be $1, and results are similar, as reported in Tables B13 and B14.

Second, agents have access to a cash account which earns the risk-free rate. Specifically, cash is invested at the end of each quarter in a 3-month Treasury bill with yield equal to the observed 3-month T-bill yield, which we obtain from the Federal Reserve Board H.15 series.

Third, we endow each agent with enough cash to finance the entirety of their future purchases and thus abstract away from differences in leverage. We endow each agent with enough initial cash to cover all future transactions in the following way. We first compute the maximum amount of debt that each agent would incur over the entire period to finance their positions if each agent began with no cash. We then endow the agent with this amount of cash in a "second pass" from which we compute their trading performance. We endow agents who do not ever trade (and thus would issue zero debt) with the mean cash level of agents in their sample who do trade houses over this period.[3] This approach essentially fully collateralizes all future trades and assumes that agents who do not trade earn the risk-free rate. We can easily assume that agents follow a given leverage policy into our framework although it only magnifies differences.

We then compute the value-weighted average dollar performance for each group by taking the weighted average of the performance index across individuals, weighting by the initial value of each individual's portfolio. We test for value-weighted differences in performance by projecting the

[3] For the within-securitization sub-sample analyses (Tables 8 and B14), we do not re-compute the initial cash levels for non-traders within each sub-sample to keep results strictly comparable to the results for the securitization group as a whole. The same comment applies to our assignment of initial purchase prices when they are missing. Re-computing the initial cash level for non-traders based on sub-sample averages and also re-computing purchase prices based on sub-sample averages during the period of purchase yield nearly equivalent results and are available from the authors.

performance index onto an indicator for the securitization group and indicators for the age categorizations using ordinary least squares in the cross-section of individuals, with sampling weights equal to their initial wealth and heteroskedasticity-robust standard errors. Due to the skewed nature of the distribution of initial wealth, we have experimented with winsorizing the distribution of initial wealth, as well as weighting by non-linear transformations such as the square root of wealth. Both exercises yield statistically and economically similar results. Not weighting at all and computing the average per-person performance yields qualitatively similar results although the differences are smaller. This suggests that, while per-person differences in performance were smaller between the two groups, dollar differences were larger.

The absolute magnitude of the performance index and portfolio returns may appear small relative to house price decreases experienced across the country (for example, those in Figure 1). For example, Table 7 reports a -7% portfolio return between 2006q4 and 2010q4 for securitization agents. It is important to note that this is a total portfolio return, and is thus not comparable to the housing returns reported in Figure 1, since the observed portfolios are not fully invested in housing. Giving each agent access to a cash account that earns the risk-free rate allows the agent to move cash in and out of housing investments and for us to compute the self-financing return to the entire portfolio. The relatively low -7% magnitude of the portfolio return reflects our conservative choice of endowing each person with enough cash to fully finance all future purchases at the initial starting date, which not only eliminates leverage in their houses, but implies that a substantial portion of their portfolio is earning the risk-free rate. For example, for the exercise in Table 7, the portfolio weight on housing in 2000q1 is only 25%.

In order to more realistically demonstrate the magnitude of potential portfolio returns, Table B15 re-calculates the portfolio evaluation exercise but only gives each agent half of what the exercise in Table 7 gives them. The gross return from 2006q4 through 2010q4 for the securitization agent group is now -17.5% instead of -7.5%. The performance index differential between securitization agents and equity analysts doubles from negative 2.74% to negative 5.48%. Note that, by construction, the statistical inference is identical, as the cash will act as a multiplier on the return differential.

**B8. Portfolio value-to-income**

The value-to-income ratios reported in Table 9 are computed by dividing the value of the purchased home by the income reported on the mortgage application. Another proxy for agents' expectations of

the persistence of their income is the portfolio value-to-income (PVTI) ratio at purchase, which divides the total value of all homes in a person's portfolio by their income. The idea is that a person's income must support the entire portfolio of homes owned rather than the only home that is being purchased.

To compute the PVTI ratio at each purchase, we mark the value of each house up or down from observed transaction prices as described in Section B7. We then compute the PVTI ratio for each purchase by totaling the marked value of all houses in a person's portfolio at the time of purchase and dividing it by the income reported on the mortgage application for the purchase. Table B16 reports the results and finds results consistent with those in Table 9 of the paper.

**B9. 2004-2006 Purchasers**

Table B17, Panel A reports the number of properties purchased during 2004-2006 and the number of purchasers for each group. Panel B reports the percentage of properties purchased in 2004-2006 remaining after each year starting in 2007 as well as the percentage of properties sold in each year. We find that, in the prime crisis years (2007 and 2008), securitization agents seem to sell off larger proportions of the initial stock of 2004-2006 purchases than either lawyers or equity analysts, as can be seen in Figure B5, which plots the percentage of properties bought during 2004-2006 still remaining each year. Panel C confirms this by showing that the intensity of sales of homes purchased during 2004-2006 was higher for the securitization group than for equity analysts and lawyers during the bust.

**Figure B1: Property Locations**

This figure displays the locations of properties collected in our sample.

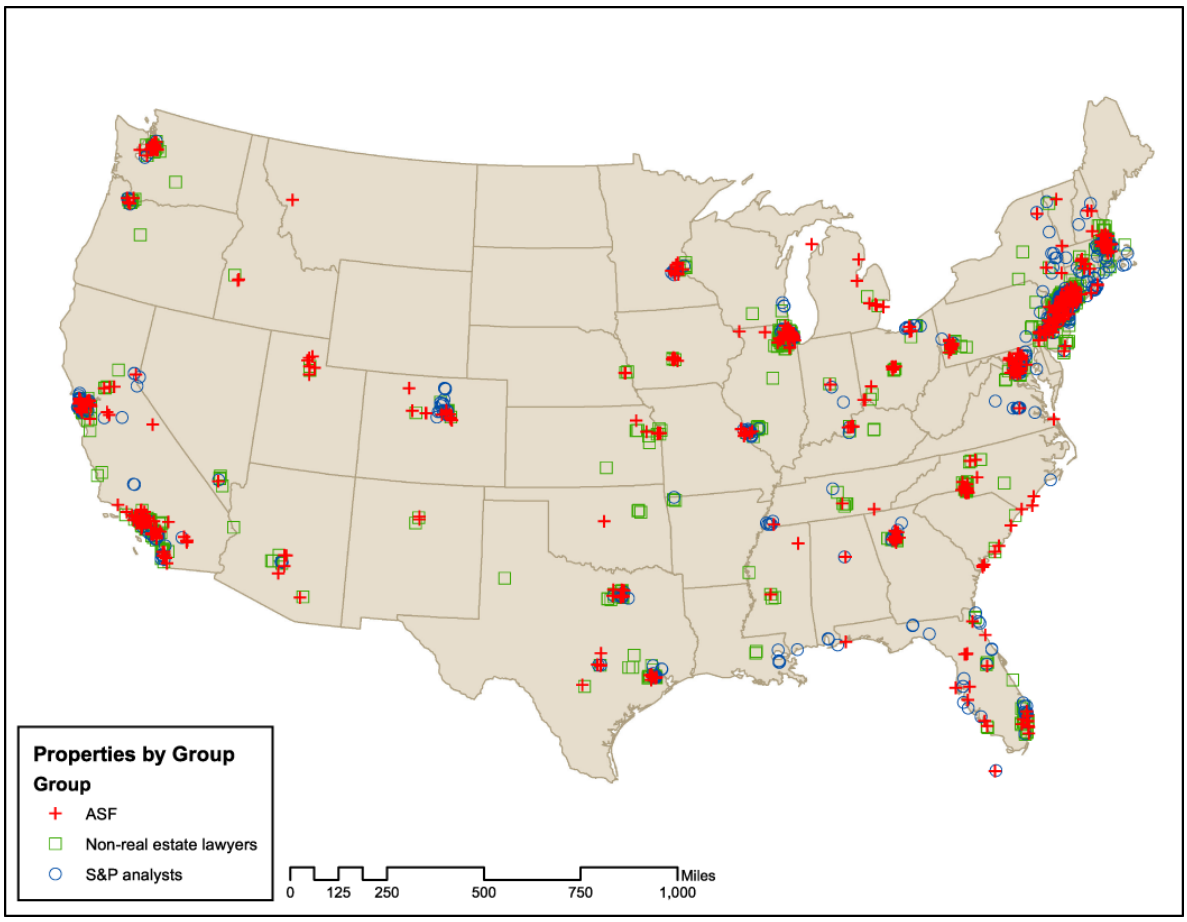


**Figure B2: First Home Purchases**

This figure plots the intensity of first home purchases, defined as the number of first home purchases per adjusted non-homeowner.

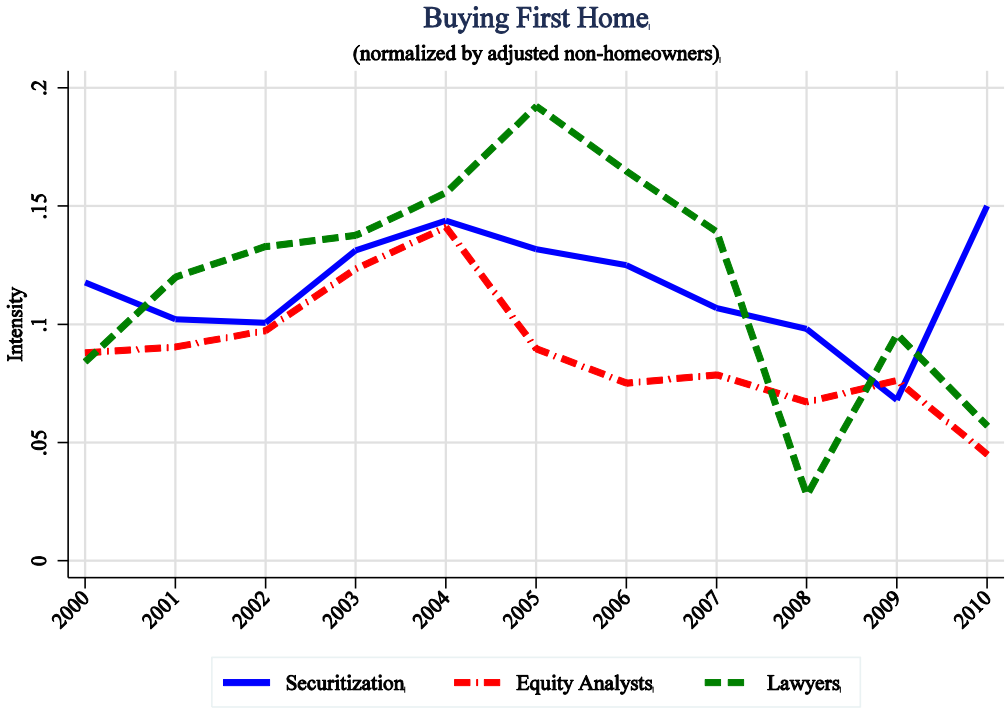



**Figure B3: Change in Debt**

This figure plots the change in debt for the average securitization agent and equity analyst who refinanced in a given year and the annual average national benchmark 30-year jumbo interest rate from BankRate through time.

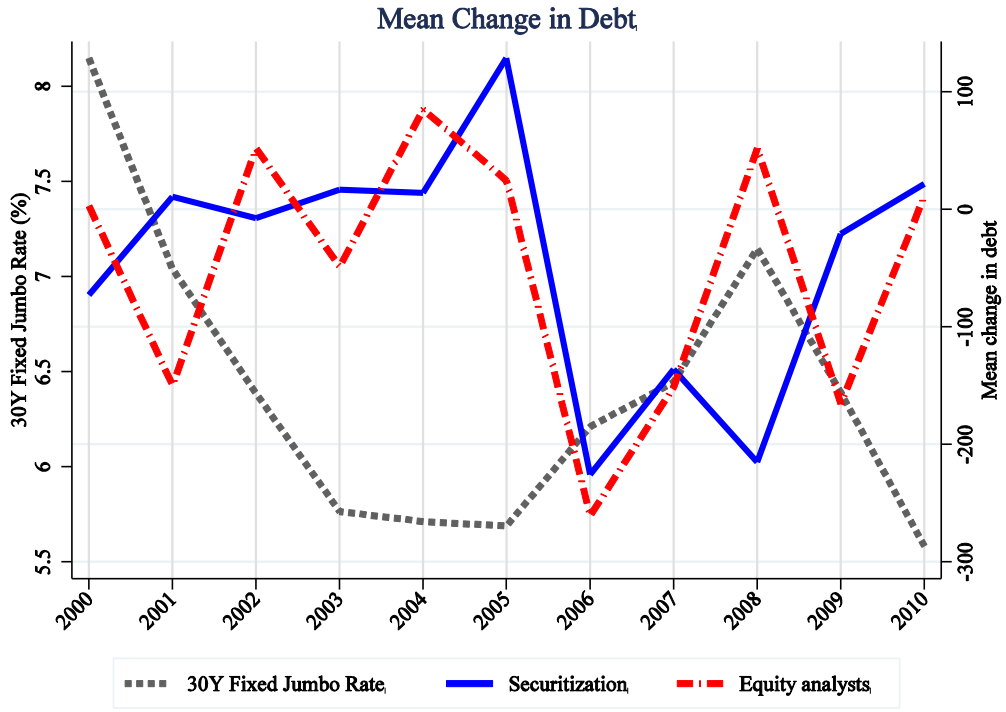


**Figure B4: Job Loss Intensity**

This figure plots the percentage of people in our LinkedIn sample every year who lose employment.

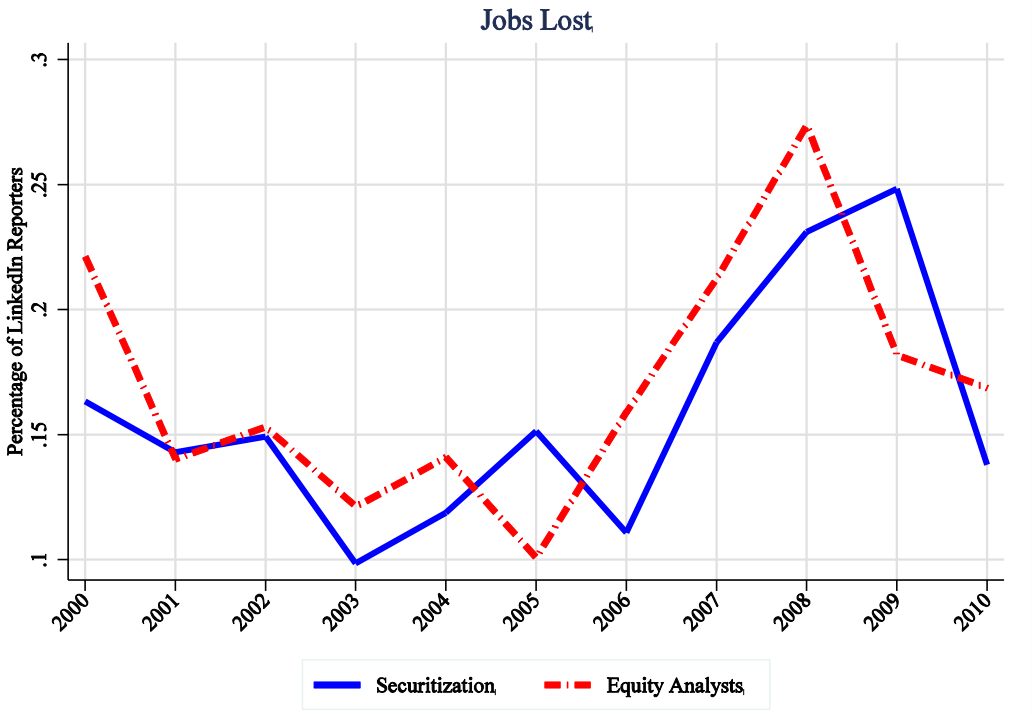



**Figure B5: Properties Still Owned**

This figure plots the percentage of properties purchased in 2004-2006 still owned at the end of each year. Note that a house bought in 2004 may be sold before 2006, hence the proportion is not 1 at the end of 2006.

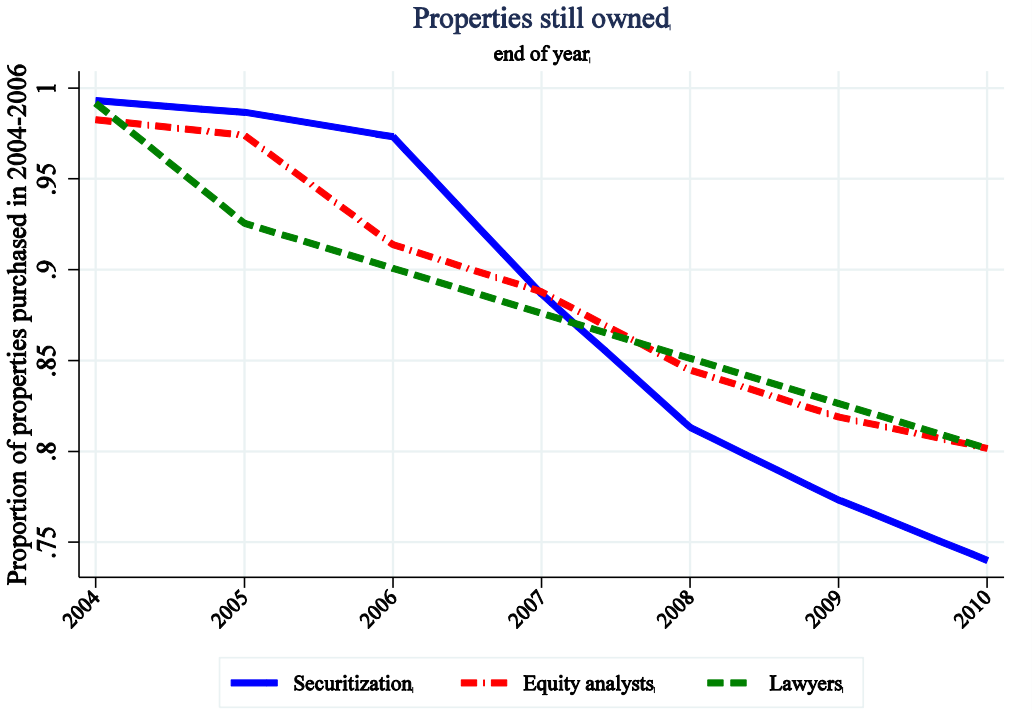


**Table B1: Securitization Sample in Detail**

Panel A lists the companies with the most number of people in-sample for the securitization group. Panel B lists the most common job titles broken down by whether they worked at a firm that was either a systemically-important financial institution (SIFI) or a firm otherwise important to the crisis. For our purposes, these firms are AIG, Bank of America, Bear Stearns, Citigroup, Countrywide, JP Morgan Chase, Lehman Brothers, Merrill Lynch, Morgan Stanley, Washington Mutual, Wachovia, Barclays, Deutsche Bank, HSBC, UBS, Credit Suisse, and Mellon Bank.

**Panel A: Companies with Most People In-Sample**

| Rank | Company | People | Rank | Company | People |
|---|---|---|---|---|---|
| 1 | Wells Fargo | 27 | 6 | Lehman Brothers | 9 |
| 2 | Washington Mutual | 23 | 7 | Merrill Lynch | 9 |
| 3 | Citigroup | 16 | 8 | Deutsche Bank | 9 |
| 4 | JP Morgan Chase | 14 | 9 | Countrywide | 9 |
| 5 | AIG | 12 | 10 | UBS | 9 |
| | Distinct firms | 176 | | Total people at SIFI+ firms | 183 |
| | matched with CRSP | 65 | | | |

**Panel B: Most Common Positions In-Sample**

| | People | |
|---|---|---|
| Title | SIFI+ Firms | Other Firms |
| Vice President | 49 | 38 |
| Senior Vice President | 27 | 31 |
| Managing Director | 20 | 19 |
| Director | 14 | 22 |
| Portfolio Manager | 11 | 18 |

**Table B2: Geographical Distribution of Properties**

This table provides summary statistics for properties owned anytime over 2000-2010. Panel A presents the distribution of addresses associated with people in our sample. Panel B presents the distribution of properties across select metropolitan areas. New York is the New York-Newark Bridgeport, NY-NJ-CT-PA combined statistical area (CSA). Southern California is a combination of Los Angeles-Long Beach-Riverside, CA CSA and San Diego-Carlsbad-San Marcos, CA Metropolitan Statistical Area. Chicago is the Chicago-Naperville-Michigan City, IL-IN-WI CSA. Boston is the Boston-Worcester-Manchester, MA-RI-NH CSA. Philadelphia is the Philadelphia-Camden-Vineland, PA-NJ-DE-MD CSA. CSA definitions follow the 2009 definitions issued by the Office of Management and Budget (OMB).

**Panel A: Regional Distribution of Properties Owned, 2000-2010**

| Region | Securitization | Equity Analysts | Lawyers |
|---|---|---|---|
| Pacific | 20.77% | 14.74% | 18.88% |
| Mountain | 4.60% | 4.47% | 4.27% |
| West North Central | 5.49% | 4.30% | 3.45% |
| East North Central | 11.42% | 7.62% | 13.46% |
| West South Central | 4.01% | 4.80% | 6.57% |
| East South Central | 2.23% | 2.32% | 2.13% |
| South Atlantic | 17.51% | 14.40% | 13.96% |
| Middle Atlantic | 24.33% | 34.60% | 24.96% |
| New England | 9.64% | 12.75% | 12.32% |
| N | 674 | 604 | 609 |

**Panel B: Geographical Distribution Over Select Metro Areas**

| Region | Securitization | Equity Analysts | Lawyers |
|---|---|---|---|
| New York | 22.10% | 35.90% | 22.30% |
| Southern California | 10.20% | 4.60% | 9.50% |
| Chicago | 7.90% | 4.80% | 8.50% |
| Boston | 4.50% | 5.00% | 7.60% |
| Philadelphia | 3.30% | 1.70% | 3.40% |

**Table B3: Purchase and Sale Prices**

Panel A tabulates the mean purchase price for each group, by year. Panel B tabulates sale prices. The price is reported in December 2006 CPI-adjusted thousands. For non-securitization groups, t-statistics associated with a t-test of the null hypothesis that the securitization minus other group purchase price equals zero are reported in brackets. The N is the number of transactions that year for which price data are recorded. */**/*** represent significant at the 10%, 5% and 1% level, respectively.

**Panel A: Purchases, 2000-2010**

| | Securitization | | Equity Analysts | | | Lawyers | | |
|---|---|---|---|---|---|---|---|---|
| | Average Price | N | Average Price | t-test | N | Average Price | t-test | N |
| 2000 | 608.452 | 37 | 754.516 | [-0.18] | 28 | 474.104 | [2.33]** | 42 |
| 2001 | 729.292 | 35 | 726.526 | [-0.87] | 37 | 450.314 | [2.70]*** | 31 |
| 2002 | 596.727 | 44 | 1170.028 | [-2.02]** | 35 | 539.254 | [2.98]*** | 41 |
| 2003 | 726.655 | 43 | 1107.795 | [-1.16] | 36 | 604.740 | [1.92]* | 32 |
| 2004 | 884.875 | 48 | 1040.285 | [-1.12] | 37 | 389.941 | [2.82]*** | 25 |
| 2005 | 832.367 | 50 | 900.978 | [-0.39] | 33 | 620.050 | [1.21] | 11 |
| 2006 | 839.914 | 35 | 1219.286 | [-2.74]*** | 28 | 481.322 | [1.24] | 19 |
| 2007 | 710.430 | 38 | 1462.951 | [-1.14] | 28 | 581.926 | [0.65] | 12 |
| 2008 | 1058.662 | 24 | 982.886 | [-0.84] | 20 | 434.139 | [-0.12] | 24 |
| 2009 | 765.496 | 17 | 1368.498 | [-2.94]*** | 19 | 419.357 | [0.35] | 32 |
| 2010 | 672.762 | 21 | 420.699 | [1.26] | 17 | 452.179 | [-0.40] | 37 |
| Total | 761.671 | 392 | 1032.381 | [-4.44]*** | 318 | 485.620 | [6.34]*** | 306 |

**Panel B: Sales, 2000-2010**

| | Securitization | | Equity Analysts | | | Lawyers | | |
|---|---|---|---|---|---|---|---|---|
| | Average Price | N | Average Price | t-test | N | Average Price | t-test | N |
| 2000 | 461.745 | 18 | 562.526 | [0.38] | 13 | 442.264 | [-0.99] | 18 |
| 2001 | 621.176 | 21 | 593.738 | [-2.27]** | 22 | 457.431 | [2.04]** | 11 |
| 2002 | 349.436 | 24 | 761.172 | [-3.36]*** | 18 | 640.984 | [-0.55] | 25 |
| 2003 | 373.989 | 23 | 1117.023 | [-0.89] | 18 | 560.362 | [1.04] | 13 |
| 2004 | 930.717 | 28 | 912.672 | [-1.75]* | 20 | 281.496 | [2.83]*** | 13 |
| 2005 | 511.399 | 25 | 552.369 | [1.19] | 18 | 521.604 | [1.08] | 12 |
| 2006 | 869.612 | 20 | 819.162 | [-1.43] | 18 | 331.857 | [1.94]* | 8 |
| 2007 | 545.398 | 27 | 1563.257 | [-1.70]* | 11 | 344.658 | [1.70] | 8 |
| 2008 | 765.359 | 26 | 612.594 | [1.03] | 11 | 291.972 | [0.88] | 8 |
| 2009 | 834.771 | 15 | 1014.542 | [-0.56] | 14 | 390.387 | [-0.58] | 10 |
| 2010 | 827.492 | 11 | 405.211 | [0.40] | 9 | 360.582 | [1.14] | 19 |
| Total | 633.742 | 238 | 794.762 | [-2.28]** | 172 | 446.368 | [3.08]*** | 145 |

## Table B4: Transaction Types

We tabulate the number of purchases (Panel A) and sale transactions (Panel B) across all samples over the period 2000-2010, with transaction types defined in the text.

**Panel A: Purchase Transactions, 2000-2010**

| | Securitization | | Equity Analysts | | Lawyers | |
|---|---|---|---|---|---|---|
| | Count | Fraction | Count | Fraction | Count | Fraction |
| Buy a First Home | 176 | 40.27% | 158 | 42.93% | 155 | 43.66% |
| Buy a Second Home | 117 | 26.77% | 121 | 32.88% | 121 | 34.08% |
| Swap Up Purchases | 101 | 23.11% | 58 | 15.76% | 63 | 17.75% |
| Swap Down Purchases | 19 | 4.35% | 12 | 3.26% | 8 | 2.25% |
| Swap Purchase- Missing Price | 24 | 5.49% | 19 | 5.16% | 8 | 2.25% |
| Total | 437 | | 368 | | 355 | |

**Panel B: Sale Transactions, 2000-2010**

| | Securitization | | Equity Analysts | | Lawyers | |
|---|---|---|---|---|---|---|
| | Count | Fraction | Count | Fraction | Count | Fraction |
| Divest Last Home | 59 | 13.50% | 44 | 11.96% | 32 | 9.01% |
| Divest Second Home | 66 | 15.10% | 72 | 19.57% | 60 | 16.90% |
| Swap Up Sale | 100 | 22.88% | 59 | 16.03% | 62 | 17.46% |
| Swap Down Sale | 19 | 4.35% | 13 | 3.53% | 9 | 2.54% |
| Swap Sell- Missing Price | 22 | 5.03% | 19 | 5.16% | 8 | 2.25% |
| Total | 266 | | 207 | | 171 | |

**Table B5: Number of Homeowners and Non-Homeowners**

We tabulate the number of homeowners (HO), adjusted homeowners, adjusted non-homeowners and adjusted multiple-homeowners for the different samples. Adjusted homeowners are people eligible to buy a second home or swap a home during the year. Adjusted non-homeowners are people eligible to purchase a first home during the year. Adjusted multiple homeowners are people eligible to divest a second home during the year. Note that the number of adjusted homeowners plus adjusted non-homeowners may be greater than the number of people in the sample. Panel A includes all people in-sample. Panel B includes people with age information.

**Panel A: Full Sample**

| | **Securitization** | | | | **Equity Analysts** | | | | **Lawyers** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO |
| 2000 | 222 | 204 | 47 | 0.555 | 199 | 227 | 53 | 0.498 | 227 | 190 | 45 | 0.568 |
| 2001 | 236 | 186 | 46 | 0.590 | 210 | 210 | 64 | 0.525 | 246 | 175 | 55 | 0.615 |
| 2002 | 248 | 169 | 52 | 0.620 | 227 | 195 | 71 | 0.568 | 265 | 158 | 66 | 0.663 |
| 2003 | 264 | 160 | 56 | 0.660 | 242 | 178 | 73 | 0.605 | 281 | 138 | 71 | 0.703 |
| 2004 | 277 | 146 | 71 | 0.693 | 260 | 163 | 82 | 0.650 | 298 | 122 | 68 | 0.745 |
| 2005 | 290 | 129 | 78 | 0.725 | 270 | 145 | 89 | 0.675 | 316 | 104 | 80 | 0.790 |
| 2006 | 302 | 112 | 78 | 0.755 | 278 | 133 | 89 | 0.695 | 324 | 91 | 77 | 0.810 |
| 2007 | 312 | 103 | 83 | 0.780 | 286 | 127 | 91 | 0.715 | 332 | 79 | 79 | 0.830 |
| 2008 | 313 | 102 | 82 | 0.783 | 290 | 119 | 91 | 0.725 | 332 | 72 | 78 | 0.830 |
| 2009 | 308 | 103 | 77 | 0.770 | 295 | 118 | 92 | 0.738 | 335 | 73 | 83 | 0.838 |
| 2010 | 315 | 100 | 79 | 0.788 | 296 | 111 | 91 | 0.740 | 337 | 70 | 85 | 0.843 |
| Distinct people | 336 | 235 | 171 | 0.840 | 313 | 242 | 162 | 0.783 | 355 | 208 | 156 | 0.888 |
| with age | 328 | 216 | 169 | 0.820 | 305 | 227 | 161 | 0.763 | 347 | 200 | 153 | 0.868 |

**Table B5, Continued**

**Panel B: Sample with Age Information**

| | Securitization | | | | Equity Analysts | | | | Lawyers | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO | Adj. HO | Adj. Non-HO | Adj. Multi-HO | Fraction Adj. HO |
| 2000 | 220 | 185 | 47 | 0.550 | 195 | 212 | 53 | 0.488 | 223 | 183 | 45 | 0.558 |
| 2001 | 234 | 167 | 46 | 0.585 | 205 | 195 | 64 | 0.513 | 241 | 169 | 54 | 0.603 |
| 2002 | 245 | 150 | 52 | 0.613 | 221 | 180 | 70 | 0.553 | 259 | 152 | 65 | 0.648 |
| 2003 | 260 | 141 | 56 | 0.650 | 236 | 161 | 71 | 0.590 | 275 | 132 | 70 | 0.688 |
| 2004 | 271 | 126 | 69 | 0.678 | 253 | 146 | 80 | 0.633 | 290 | 115 | 67 | 0.725 |
| 2005 | 284 | 109 | 77 | 0.710 | 262 | 129 | 87 | 0.655 | 305 | 97 | 76 | 0.763 |
| 2006 | 294 | 92 | 77 | 0.735 | 265 | 117 | 86 | 0.663 | 308 | 82 | 74 | 0.770 |
| 2007 | 301 | 83 | 82 | 0.753 | 271 | 111 | 86 | 0.678 | 313 | 71 | 74 | 0.783 |
| 2008 | 301 | 84 | 80 | 0.753 | 274 | 103 | 86 | 0.685 | 312 | 65 | 72 | 0.780 |
| 2009 | 294 | 84 | 73 | 0.735 | 279 | 102 | 86 | 0.698 | 312 | 66 | 76 | 0.780 |
| 2010 | 294 | 80 | 75 | 0.735 | 280 | 95 | 86 | 0.700 | 313 | 64 | 77 | 0.783 |
| Distinct people | 328 | 216 | 169 | 0.820 | 305 | 227 | 161 | 0.763 | 347 | 200 | 153 | 0.868 |

**Table B6: Divesting Houses, Logit Model**

We report the coefficients and average marginal effects of the securitization group indicator from estimating equation (1) using a logit model instead of OLS, substituting an indicator for whether or not an individual divested a house as the left-hand side variable instead of the number of divestitures per person. The first two columns use the equity analyst group as a control group, while the second set of columns use the lawyers. We control for the eight age groups defined in Table 1 as well as an indicator for whether someone is a multi-homeowner at the start of the year, and the sample period is 2000-2010. The number of people in-sample each year is the number of homeowners at the beginning of each year for the two groups that are compared. T-statistics computed from person-clustered standard errors are reported in brackets below each coefficient. Standard errors for average marginal effects are computed using the delta method. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

| | Securitization Minus: | | | |
|---|---|---|---|---|
| | Equity Analysts | | Lawyers | |
| Year | Coefficients | Avg Marginal Effects | Coefficients | Avg Marginal Effects |
| 2000 | -0.123 | -0.006 | 0.930 | 0.026 |
| | [-0.27] | [-0.27] | [1.54] | [1.60] |
| 2001 | 0.061 | 0.002 | 0.675 | 0.018 |
| | [0.13] | [0.13] | [1.18] | [1.19] |
| 2002 | -0.025 | -0.001 | 0.349 | 0.012 |
| | [-0.05] | [-0.05] | [0.71] | [0.71] |
| 2003 | -0.041 | -0.002 | 0.440 | 0.015 |
| | [-0.10] | [-0.10] | [0.92] | [0.91] |
| 2004 | -0.143 | -0.006 | 0.092 | 0.003 |
| | [-0.34] | [-0.34] | [0.20] | [0.20] |
| 2005 | -0.360 | -0.011 | -0.716 | -0.023 |
| | [-0.72] | [-0.72] | [-1.51] | [-1.54] |
| 2006 | -0.129 | -0.004 | 0.431 | 0.010 |
| | [-0.28] | [-0.28] | [0.80] | [0.81] |
| 2007 | 0.609 | 0.022 | 0.773 | 0.025 |
| | [1.34] | [1.38] | [1.64] | [1.68]* |
| 2008 | 0.590 | 0.026 | 0.602 | 0.025 |
| | [1.44] | [1.46] | [1.46] | [1.47] |
| 2009 | 0.910 | 0.029 | 1.380 | 0.035 |
| | [1.81]* | [1.88]* | [2.39]** | [2.52]** |
| 2010 | 0.171 | 0.004 | -0.206 | -0.005 |
| | [0.30] | [0.30] | [-0.41] | [-0.41] |
| Multi-HO? | 1.327 | | 1.525 | |
| | [9.66]*** | | [10.48]*** | |
| Age Effects? | Y | | Y | |
| N | 5739 | | 6149 | |
| Pseudo R2 | 0.059 | | 0.076 | |
| People | 633 | | 675 | |

**Table B7: Buying a Second Home or Swapping Up, Logit Model**

We report the coefficients and average marginal effects of the securitization group indicator from estimating equation (1) using a logit model instead of OLS, substituting an indicator for whether or not bought a second home or swapped into a more expensive house as the left-hand side variable instead of the number per person. The first two columns use the equity analyst group as a control group, while the second set of columns use the lawyers. We control for the eight age groups defined in Table 1 as well as an indicator for whether someone is a multi-homeowner at the start of the year, and the sample period is 2000-2010. The number of people in-sample each year is the number of homeowners at the beginning of each year for the two groups that are compared. T-statistics computed from person-clustered standard errors are reported in brackets below each coefficient. Standard errors for average marginal effects are computed using the delta method. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

| | Securitization Minus: | | | |
|---|---|---|---|---|
| | Equity Analysts | | Lawyers | |
| Year | Coefficients | Avg Marginal Effects | Coefficients | Avg Marginal Effects |
| 2000 | 0.419 | 0.017 | -0.288 | -0.012 |
| | [0.84] | [0.84] | [-0.61] | [-0.61] |
| 2001 | 0.306 | 0.016 | 0.323 | 0.013 |
| | [0.72] | [0.71] | [0.71] | [0.70] |
| 2002 | 1.335 | 0.079 | 0.884 | 0.049 |
| | [3.33]*** | [3.44]*** | [2.23]** | [2.25]** |
| 2003 | 0.433 | 0.023 | -0.217 | -0.011 |
| | [1.08] | [1.08] | [-0.57] | [-0.58] |
| 2004 | 0.616 | 0.037 | 0.816 | 0.039 |
| | [1.71]* | [1.70]* | [2.02]** | [2.08]** |
| 2005 | 1.001 | 0.063 | 0.467 | 0.028 |
| | [2.89]*** | [2.98]*** | [1.39] | [1.40] |
| 2006 | 0.530 | 0.027 | 0.048 | 0.002 |
| | [1.41] | [1.41] | [0.13] | [0.13] |
| 2007 | 0.476 | 0.026 | 0.510 | 0.023 |
| | [1.33] | [1.34] | [1.34] | [1.36] |
| 2008 | 0.259 | 0.010 | 0.578 | 0.016 |
| | [0.60] | [0.60] | [1.15] | [1.17] |
| 2009 | -0.091 | -0.003 | -0.595 | -0.018 |
| | [-0.19] | [-0.19] | [-1.25] | [-1.28] |
| 2010 | -0.203 | -0.007 | 0.036 | 0.001 |
| | [-0.44] | [-0.44] | [0.07] | [0.07] |
| Multi-HO? | 5.204 | | 5.666 | |
| | [15.09]*** | | [14.46]*** | |
| Age Effects? | Y | | Y | |
| N | 5739 | | 6149 | |
| Pseudo R2 | 0.379 | | 0.421 | |
| People | 633 | | 675 | |

**Table B8: Buying a First Home**

The first three columns tabulate the number of first home purchases per non-homeowner for each group, by year. T-statistics from a two-sample test of differences in means with the securitization sample are reported each group-year for the two control groups. The next two columns report regression-adjusted differences in the number of first home purchases per person each year, where we control for the eight age groups defined in Table 1. The number of people in-sample each year is the number of non-homeowners at the beginning of each year for the two groups that are compared, and the sample period is 2000-2010. T-statistics computed from person-clustered standard errors are reported in brackets below each difference. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

| | First home purchases per person | | | Regression-Adjusted Difference | |
|---|---|---|---|---|---|
| | | | | Sctzn. minus: | |
| Year | Securitization | Equity Analysts | Lawyers | Equity Analysts | Lawyers |
| 2000 | 0.118 | 0.088 | 0.084 | 0.036 | 0.048 |
| | | [1.01] | [1.10] | [1.16] | [1.49] |
| 2001 | 0.102 | 0.090 | 0.120 | 0.022 | -0.010 |
| | | [0.39] | [-0.54] | [0.68] | [-0.29] |
| 2002 | 0.101 | 0.097 | 0.133 | 0.004 | -0.031 |
| | | [0.10] | [-0.91] | [0.13] | [-0.82] |
| 2003 | 0.131 | 0.118 | 0.138 | 0.016 | 0.003 |
| | | [0.36] | [-0.16] | [0.38] | [0.07] |
| 2004 | 0.144 | 0.141 | 0.156 | 0.012 | -0.004 |
| | | [0.07] | [-0.27] | [0.26] | [-0.08] |
| 2005 | 0.132 | 0.090 | 0.192 | 0.065 | -0.045 |
| | | [1.11] | [-1.26] | [1.46] | [-0.83] |
| 2006 | 0.125 | 0.075 | 0.165 | 0.077 | -0.013 |
| | | [1.31] | [-0.80] | [1.75]* | [-0.25] |
| 2007 | 0.107 | 0.079 | 0.139 | 0.030 | -0.029 |
| | | [0.73] | [-0.66] | [0.68] | [-0.55] |
| 2008 | 0.098 | 0.067 | 0.028 | 0.062 | 0.083 |
| | | [0.83] | [1.81]* | [1.43] | [2.01]** |
| 2009 | 0.068 | 0.076 | 0.096 | 0.008 | -0.013 |
| | | [-0.24] | [-0.67] | [0.19] | [-0.27] |
| 2010 | 0.150 | 0.045 | 0.057 | 0.132 | 0.109 |
| | | [2.63]*** | [1.90]* | [2.76]*** | [2.11]** |
| | | | Age Indicators? | Y | Y |
| | | | N | 2852 | 2497 |
| | | | R-Squared | 0.019 | 0.021 |
| | | | People | 443 | 416 |

**Table B9: Buying a Second Home or Swapping Up, Pooled Intensities**

The first three columns tabulate the number of second home/swap up purchases per homeowner for each group, where intensities have been pooled into two-year groupings. T-statistics from a two-sample test of differences in means with the securitization sample are reported each group-year other than the securitization group. The next two columns report regression-adjusted differences estimated in equation B1 in the number of second home/swap up purchases per person each year, where we control for the eight age groups defined in Table 1 as well as an indicator for whether someone is a multi-homeowner at the start of the year. The number of people in-sample each year is the number of homeowners at the beginning of each year for the two groups that are compared, and the sample period is 2000-2010. T-statistics computed from person-clustered standard errors are reported in brackets below each difference. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

| | Second home/swap up purchases per person | | | Regression-Adjusted Difference | |
|---|---|---|---|---|---|
| | | | | Sctzn. minus: | |
| Year | Securitization | Equity Analysts | Lawyers | Equity Analysts | Lawyers |
| 2000-2001 | 0.059 | 0.071 | 0.057 | 0.010 | 0.001 |
| | | [-0.69] | [0.12] | [0.64] | [0.09] |
| 2002-2003 | 0.096 | 0.077 | 0.082 | 0.044 | 0.019 |
| | | [1.00] | [0.73] | [2.56]** | [1.17] |
| 2004-2005 | 0.109 | 0.075 | 0.068 | 0.052 | 0.036 |
| | | [1.85]* | [2.30]** | [3.26]*** | [2.24]** |
| 2006-2007 | 0.080 | 0.066 | 0.055 | 0.033 | 0.017 |
| | | [0.88] | [1.66]* | [2.07]** | [1.13] |
| 2008-2009 | 0.035 | 0.041 | 0.036 | 0.012 | -0.005 |
| | | [-0.51] | [-0.05] | [0.95] | [-0.41] |
| 2010 | 0.029 | 0.044 | 0.030 | -0.002 | -0.002 |
| | | [-1.02] | [-0.08] | [-0.10] | [-0.14] |
| | | | Multi-homeowner? | 0.246 | 0.262 |
| | | | | [19.84]*** | [18.06]*** |
| | | | Age Indicators? | Y | Y |
| | | | N | 5739 | 6149 |
| | | | R-Squared | 0.182 | 0.201 |
| | | | People | 633 | 675 |

**Table B10: Purchases in Non-Recourse States**

This table reports coefficients from a transaction-level regression of an indicator of whether a purchase was in a non-recourse state as the left-hand side variable on time-specific indicators for whether the purchase was made by a securitization agent as well as whether the purchaser already owned property in a non-recourse state, as in equation B2, where the control group is purchases made by equity analysts. T-statistics computed from person-clustered standard errors are reported in brackets below each coefficient. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

| | Second home and swap-ups | | Second home only | |
|---|---|---|---|---|
| Purch. Yr. | α(s(t)) | β(s(t)) | α(s(t)) | β(s(t)) |
| 2000-2001 | N/A | 0.136 | N/A | 0.071 |
| | | [1.45] | | [0.88] |
| 2002-2003 | 0.025 | 0.078 | 0.025 | 0.161 |
| | [0.38] | [1.16] | [0.27] | [1.73]* |
| 2004-2005 | 0.063 | 0.080 | 0.070 | 0.031 |
| | [0.81] | [1.01] | [0.67] | [0.32] |
| 2006-2007 | 0.060 | 0.016 | 0.065 | 0.017 |
| | [1.09] | [0.22] | [0.87] | [0.23] |
| 2008-2009 | 0.155 | -0.046 | 0.193 | -0.094 |
| | [1.94]* | [-0.53] | [1.81]* | [-0.81] |
| 2010 | -0.064 | 0.126 | -0.045 | 0.125 |
| | [-0.67] | [1.36] | [-0.39] | [1.17] |
| γ | 0.671 | | 0.700 | |
| | [11.88]*** | | [10.04]*** | |
| Constant | 0.011 | | -0.005 | |
| | [0.22] | | [-0.07] | |
| Purchases | 397 | | 238 | |
| R-squared | 0.466 | | 0.503 | |
| People | 274 | | 180 | |

**Table B11: Second Homes and Condominiums**

Panel A reports the intensity of second home purchases that are condominiums and the regression-adjusted difference in intensity across securitization and equity analyst groups using equation B3. Panel B reports estimates of the difference in the conditional probability that a purchase is a condominium, conditional on the purchase being a second-home purchase, across purchases made by securitization and equity analyst groups, by estimating equation B4, as well as the expected distance in miles to the second home. For both panels, t-statistics computed from person-clustered standard errors are reported in brackets below each coefficient. */**/*** represents statistically significant at the 10%, 5%, and 1% levels, respectively.

**Panel A: Intensity of Second-Home Condo Purchase**

| | Sctzn. Minus Equity Analyst |
|---|---|
| Year | β(s(t)) |
| 2000-2001 | -0.005 |
| | [-1.03] |
| 2002-2003 | 0.006 |
| | [1.17] |
| 2004-2005 | 0.012 |
| | [2.36]** |
| 2006-2007 | -0.003 |
| | [-0.58] |
| 2008-2009 | -0.002 |
| | [-0.93] |
| 2010 | 0.004 |
| | [0.73] |
| Multi-homeowner? | 0.020 |
| | [5.47]*** |
| Age Indicators? | Y |
| N | 5739 |
| R-Squared | 0.017 |
| People | 633 |

**Table B11, Continued**

**Panel B: Conditional Expectations**

| | E[IsCondo \| SecondHome=1] | | E[Distance \| SecondHome=1] | |
|---|---|---|---|---|
| Purch. Yr. | α(s(t)) | β(s(t)) | α(s(t)) | β(s(t)) |
| 2000-2001 | N/A | -0.071 | N/A | -294.021 |
| | | [-0.51] | | [-1.49] |
| 2002-2003 | -0.102 | 0.110 | -140.948 | -63.629 |
| | [-0.99] | [1.04] | [-0.70] | [-0.42] |
| 2004-2005 | -0.147 | 0.184 | -261.352 | 57.714 |
| | [-1.59] | [2.27]** | [-1.32] | [0.46] |
| 2006-2007 | 0.018 | -0.135 | -289.930 | 101.527 |
| | [0.14] | [-1.23] | [-1.64] | [0.93] |
| 2008-2009 | -0.064 | -0.118 | -250.883 | 91.210 |
| | [-0.55] | [-1.47] | [-1.19] | [0.45] |
| 2010 | -0.057 | 0.125 | -472.694 | 269.116 |
| | [-0.39] | [0.63] | [-2.84]*** | [1.47] |
| Constant | 0.182 | | 507.003 | |
| | [2.11]** | | [3.06]*** | |
| Purchases | 238 | | 238 | |
| R-squared | 0.051 | | 0.035 | |
| People | 180 | | 180 | |

**Table B12: Job Losses**

Panel A decomposes the annual intensity of divestiture in the 2007-2008 period into divestitures related and unrelated to job losses. Panel B decomposes the intensity for sales. The sample is composed of people who report information in LinkedIn, and the data is structured into a panel of homeowners in 2007 and 2008. Estimates are computed by combining OLS coefficients from equation B5. T-statistics are clustered at the person level. */**/*** denotes significant at the 10%, 5%, and 1% levels, respectively.

**Panel A: Divestitures**

| | E[#Dvst] | Pr[JL=1] | E[#Dvst\|JL=0] | E[#Dvst\|JL=1] | Difference | N |
|---|---|---|---|---|---|---|
| Securitization | 0.053 | 0.203 | 0.041 | 0.098 | 0.057 | 449 |
| Equity Analyst | 0.033 | 0.255 | 0.028 | 0.047 | 0.019 | 330 |
| Difference | 0.020 | -0.052 | 0.013 | 0.051 | 0.038 | Total People: |
| | [1.40] | [-1.77]* | [0.90] | [1.31] | [0.90] | 399 |

**Panel B: Sales**

| | E[#Sale] | Pr[JL=1] | E[#Sale\|JL=0] | E[#Sale\|JL=1] | Difference | N |
|---|---|---|---|---|---|---|
| Securitization | 0.096 | 0.203 | 0.073 | 0.187 | 0.114 | 449 |
| Equity Analyst | 0.064 | 0.255 | 0.061 | 0.071 | 0.010 | 330 |
| Difference | 0.032 | -0.052 | 0.012 | 0.115 | 0.104 | Total People: |
| | [1.71]* | [-1.77]* | [0.57] | [2.33]** | [1.91]* | 399 |

**Table B13: Performance Index, Equally-Weighted Initial Prices**

Panel A presents summary statistics for the performance index where the initial value per home is $1. Averages per person are reported while standard deviations are reported below in parentheses. Panel B reports average performance and regression-adjusted differences in performance weighted by the initial portfolio value. Regression-adjusted differences are the coefficient on an indicator for the securitization group in a person-level cross-sectional regression of the dependent variable indicated in first column of the row on a securitization group indicator and indicators for age controls, with samplings weights equal to the initial portfolio value and robust standard errors reported in brackets. */**/*** denotes statistically significant at the 10%, 5% and 1% levels, respectively.

**Panel A: Summary Statistics**

| | Securitization | | Equity Analysts | | Lawyers | |
|---|---|---|---|---|---|---|
| | 2000q1 | 2010q4 | 2000q1 | 2010q4 | 2000q1 | 2010q4 |
| Number of properties per person | 0.603 | 1.020 | 0.590 | 0.993 | 0.652 | 1.095 |
| | (0.693) | (0.766) | (0.799) | (0.809) | (0.727) | (0.817) |
| Value of properties | 0.603 | 1.550 | 0.590 | 1.572 | 0.652 | 1.668 |
| | (0.693) | (1.230) | (0.799) | (1.321) | (0.727) | (1.305) |
| Cash account | 1.653 | 1.437 | 1.744 | 1.611 | 1.505 | 1.214 |
| | (1.195) | (1.163) | (1.094) | (1.173) | (1.227) | (1.121) |
| Portfolio value | 2.256 | 2.987 | 2.334 | 3.183 | 2.157 | 2.882 |
| | (1.186) | (1.492) | (1.028) | (1.439) | (1.235) | (1.628) |
| Housing portfolio weight | 0.303 | 0.538 | 0.275 | 0.498 | 0.348 | 0.595 |
| | (0.341) | (0.311) | (0.340) | (0.331) | (0.356) | (0.291) |
| Number of people | 400 | | 400 | | 400 | |

**Panel B: Performance, 2000q1-2010q4**

| | Means and Std. Devs. | | | Reg.Adj. Differences Sctzn. minus: | |
|---|---|---|---|---|---|
| | Sctzn. | Equity Analysts | Lawyers | Equity Analysts | Lawyers |
| Return | 0.324 | 0.364 | 0.336 | -0.048 | -0.007 |
| | (0.184) | (0.186) | (0.209) | [-3.34]*** | [-0.44] |
| Buy-and-hold return | 0.364 | 0.379 | 0.369 | -0.023 | -0.000 |
| | (0.125) | (0.131) | (0.136) | [-2.47]** | [-0.05] |
| Performance index | -0.0395 | -0.0154 | -0.0334 | -0.025 | -0.007 |
| | (0.142) | (0.131) | (0.144) | [-2.25]** | [-0.52] |
| Return, 2006q4-2010q4 | -0.0733 | -0.0514 | -0.0872 | -0.019 | 0.009 |
| | (0.114) | (0.0998) | (0.123) | [-2.34]** | [0.92] |
| N | 400 | 400 | 400 | 766 | 770 |
| R-squared on perf. index | | | | 0.022 | 0.018 |

**Table B14: Within-Securitization Performance Index, Equally-Weight Initial Prices**

This table reports average performance and regression-adjusted differences in performance within subgroups of the securitization sample weighted by the initial portfolio value, and where the initial home value is assigned to be $1. Regression-adjusted differences are the coefficient on an indicator for the securitization group in a person-level cross-sectional regression of the dependent variable indicated in first column of the row on a securitization group indicator and indicators for age controls, with samplings weights equal to the initial portfolio value and robust standard errors reported in brackets. */**/*** denotes statistically significant at the 10%, 5% and 1% levels, respectively.

**Panel A: Sell-side vs. Buy-side**

| | Means and SDs | | Reg.Adj Diff. |
|---|---|---|---|
| | Sell-side | Buy-side | Sell-Buy |
| Return | 0.300 | 0.341 | -0.044 |
| | (0.191) | (0.178) | [-2.00]** |
| Buy-and-hold return | 0.351 | 0.373 | -0.026 |
| | (0.128) | (0.123) | [-1.97]** |
| Performance index | -0.0508 | -0.0316 | -0.018 |
| | (0.165) | (0.124) | [-0.95] |
| Return, 2006q4-2010q4 | -0.0911 | -0.0609 | -0.024 |
| | (0.124) | (0.105) | [-1.90]* |
| N | 161 | 239 | 379 |
| R-squared on perf. index | | | 0.016 |

**Panel B: Worst and Best Performing Firms**

| | Means and Std. Devs. | | Reg.Adj Diff. |
|---|---|---|---|
| | Worst | Best | Worst-Best |
| Return | 0.292 | 0.338 | -0.030 |
| | (0.192) | (0.167) | [-0.99] |
| Buy-and-hold return | 0.356 | 0.351 | 0.018 |
| | (0.141) | (0.110) | [0.83] |
| Performance index | -0.0639 | -0.0128 | -0.048 |
| | (0.171) | (0.120) | [-1.76]* |
| Return, 2006q4-2010q4 | -0.0890 | -0.0541 | -0.039 |
| | (0.100) | (0.105) | [-2.54]** |
| N | 103 | 77 | 174 |
| R-squared on perf. index | | | 0.048 |

**Table B15: Performance Index with 50% Initial Cash**

Panel A presents summary statistics for the performance index exercise where we give each person 50% of the baseline amount of cash described in the text. Averages per person are reported while standard deviations are reported below in parentheses. Dollar amounts are in nominal thousands. Panel B reports average performance and regression-adjusted differences in performance weighted by the initial portfolio value. Regression-adjusted differences are the coefficient on an indicator for the securitization group in a person-level cross-sectional regression of the dependent variable indicated in first column of the row on a securitization group indicator and indicators for age controls, with samplings weights equal to the initial portfolio value and robust standard errors reported in brackets. */**/*** denotes statistically significant at the 10%, 5% and 1% levels, respectively.

**Panel A: Summary Statistics**

| | Securitization | | Equity Analysts | | Lawyers | |
|---|---|---|---|---|---|---|
| | 2000q1 | 2010q4 | 2000q1 | 2010q4 | 2000q1 | 2010q4 |
| Number of properties per person | 0.603 | 1.020 | 0.590 | 0.993 | 0.652 | 1.095 |
| | (0.693) | (0.766) | (0.799) | (0.809) | (0.727) | (0.817) |
| Value of properties | 236.8 | 751.2 | 308.2 | 992.2 | 191.1 | 522.6 |
| | (390.2) | (893.8) | (568.7) | (1210.1) | (282.0) | (522.4) |
| Cash account | 305.6 | -20.08 | 425.8 | 28.23 | 139.6 | -57.36 |
| | (436.4) | (583.1) | (622.8) | (769.2) | (266.7) | (369.7) |
| Portfolio value | 542.4 | 731.1 | 733.9 | 1020.4 | 330.7 | 465.2 |
| | (518.0) | (942.2) | (607.0) | (897.0) | (274.5) | (489.8) |
| Housing portfolio weight | 0.512 | 1.109 | 0.490 | 1.005 | 0.643 | 1.232 |
| | (0.631) | (0.660) | (0.654) | (0.684) | (0.690) | (0.656) |
| Number of people | 400 | | 400 | | 400 | |

**Panel B: Performance, 2000q1-2010q4**

| | Means and Std. Devs. | | | Reg.Adj. Differences Sctzn. minus: | |
|---|---|---|---|---|---|
| | Sctzn. | Equity Analysts | Lawyers | Equity Analysts | Lawyers |
| Return | 0.348 | 0.390 | 0.407 | -0.089 | -0.053 |
| | (0.395) | (0.339) | (0.443) | [-2.63]*** | [-1.08] |
| Buy-and-hold return | 0.423 | 0.430 | 0.447 | -0.034 | -0.017 |
| | (0.240) | (0.232) | (0.279) | [-1.72]* | [-0.75] |
| Performance index | -0.0755 | -0.0397 | -0.0396 | -0.055 | -0.036 |
| | (0.293) | (0.227) | (0.291) | [-2.19]** | [-1.02] |
| Return, 2006q4-2010q4 | -0.175 | -0.127 | -0.182 | -0.042 | 0.001 |
| | (0.181) | (0.156) | (0.186) | [-3.01]*** | [0.08] |
| N | 400 | 400 | 400 | 766 | 770 |
| R-squared on perf. index | | | | 0.033 | 0.034 |

**Table B16: Portfolio Value-to-Income**

This table presents average portfolio value-to-income (PVTI) at purchase in three periods for each group. We first average PVTI from purchases observed within each person-period before averaging across people to obtain an average PVTI per purchaser for each period. Row A tests whether the boom minus pre-boom difference in averages was positive by projecting person-level income onto an indicator for the boom period in a two-period panel of person-level income. Row B tests whether the difference in difference is significant across groups. Standard errors are clustered at the person level. */**/*** denotes significant at the 10%, 5%, and 1% levels, respectively.

| | | **PVTI** | | |
|---|---|---|---|---|
| | | Sctzn. | Equity Analysts | Lawyers |
| **Pre-Boom period** | Mean | 3.9 | 3.7 | 3.7 |
| **(2000-2003)** | Median | 3.5 | 3.3 | 3.3 |
| | SD | 2.1 | 2.4 | 1.7 |
| | People | 67 | 62 | 50 |
| **Boom period** | Mean | 4.8 | 4.6 | 4.4 |
| **(2004-2006)** | Median | 4.2 | 3.8 | 3.8 |
| | SD | 2.7 | 3.2 | 2.8 |
| | People | 80 | 52 | 50 |
| **Bust period** | Mean | 3.9 | 4.9 | 4.6 |
| **(2007-2010)** | Median | 3.4 | 3.6 | 3.7 |
| | SD | 2.5 | 3.6 | 2.9 |
| | People | 63 | 54 | 44 |
| A) Boom-PreBoom | Point Est. | 0.884 | 0.925 | 0.649 |
| | t-stat | [2.23]** | [1.72]* | [1.45] |
| | N | 147 | 114 | 100 |
| | R2 | 0.032 | 0.027 | 0.020 |
| B) DID | Point Est. | | -0.0407 | 0.235 |
| Sctzn. minus | t-stat | | [-0.061] | [0.39] |
| Control | N | | 261 | 247 |
| | R2 | | 0.032 | 0.032 |

**Table B17: 2004-2006 Purchasers**

This table provides details on the differences between groups in the sales of properties purchased in the years 2004 through 2006. Panel A provides the number of properties purchased by each group in 2004-2006 and the number of people that purchased properties in 2004-2006. Panel B provides a year-by-year breakdown of what percentage of the properties purchased in 2004-2006 by each group were sold and what percentage are remaining. Panel C tabulates the intensities of sales by each group during the crisis period. For non-securitization groups, t-statistics associated with a t-test of the null hypothesis that the difference in sale intensity with the securitization group equals zero are reported in brackets. */**/*** represent significant at the 10%, 5% and 1% level, respectively.

**Panel A: Sample sizes**

| Sample | Securitization | Equity Analysts | Lawyers |
|---|---|---|---|
| Number of properties purchased in 2004-2006 | 150 | 116 | 121 |
| Number of people who purchased in 2004-2006 | 134 | 105 | 109 |

**Panel B: Percent of properties purchased in 2004-2006 sold, by year**

| | Securitization | | Equity Analysts | | Lawyers | |
|---|---|---|---|---|---|---|
| Year | % sold | % remaining | % sold | % remaining | % sold | % remaining |
| 2007 | 8.67% | 88.67% | 2.59% | 88.79% | 2.48% | 87.60% |
| 2008 | 7.33% | 81.33% | 4.31% | 84.48% | 2.48% | 85.12% |
| 2009 | 4.00% | 77.33% | 2.59% | 81.90% | 2.48% | 82.64% |
| 2010 | 3.33% | 74.00% | 1.72% | 80.17% | 2.48% | 80.17% |

**Panel C: Sale intensity during the bust (2007-2009)**

| Statistic | Securitization | Equity Analysts | Lawyers |
|---|---|---|---|
| Sales of 2004-2006 properties per purchaser | 0.2239 | 0.1048 | 0.0826 |
| | | [2.37]** | [2.85]*** |

# Wall Street and the Housing Bubble

## Appendix C
## Data Collection Manual

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This appendix contains the instructions provided to research assistants (RAs) for collecting data from Lexis/Nexis Public Records. These instructions are provided to RAs after a comprehensive one-hour session during which one of the authors walks them through the data collection procedure for one of the sample members.

**Instructions for Collecting Real Estate Data**

1. Using various Internet resources, pinpoint the person for whom data is being collected on Lexis/Nexis Public Records (L/N).
    a. If, despite your best efforts to pinpoint your target to one L/N person, you cannot find one person on L/N who matches your person, then, in the "Problems/Notes" column of the "Information" tab, put in "Multiple found in L/N".
    b. If, despite your best efforts to find your target in L/N, you cannot find anyone in L/N who fits all the constraints for your target, then, in the "Problems/Notes" column of the "Information" tab, put in "Not found in L/N".
    c. If your target is dead (has died before 2012-01-01), then, in the "Problems/Notes" column of the "Information" tab, put in "Deceased".
    d. If your target lives internationally, then, in the "Problems/Notes" column of the "Information" tab, put in "International".
2. If you are able to pinpoint exactly one person in L/N matching your target's information (e.g., name, approximate age, approximate location), then put the following information in the "Information" tab:
    a. First 5 of SSN in "SSN First 5" (e.g., for 867-53-xxxx, put "867-53" in "SSN First 5").
    b. Link ID in "Link ID".
    c. Age in "Age".
    d. Date of birth in "Date of Birth" (L/N only has the date of birth up to the month of birth; this is okay, just set it to the first of the month; e.g., for 08/1976, put in "1976-08-01").
3. After putting in all the above information, click on the Link ID provided in the right-most column for the row matching the target in L/N. This runs a Link ID-based Comprehensive Person Report search (much more reliable than searching on name, DOB, etc.).
4. There should only be one result in the search results for the Link ID-based search. Click on the target's name in the "Full Name" column to view the person's "Comprehensive Person Report". **NOTE: The "Comprehensive Person Report" contains lots of information that may seem very helpful in collecting data. Unfortunately, while it is quite thorough, the "Comprehensive Person Report" is usually not comprehensive. Therefore, real estate information provided there is not usually complete. So, avoid the temptation to pull data from the report.**

5. Copy to a temporary location all the addresses shown for the target in the "Address Summary" of the "Comprehensive Person Report". These are all the properties that the target may potentially own.
6. For each property stored in the temporary location, start a new "Real Property" search (by going to "Public Records" at the top and then selecting "Real Property" under the "All Searches" tab).
    a. Make sure that "Current Records Only" is **not** checked.
    b. Do **not** include the target's information in the real property search.
    c. If the search brings you to a "No Records Found" page, try to use alternate versions of the address to locate the property correctly; examples:
        i. Use 5-number ZIP code rather than 9-number ZIP-9 code.
        ii. If the address is "1600 Pennsylvania Ave #33", then try "1600 Pennsylvania Ave Apt 33" or "1600 Pennsylvania Ave 33".
    d. If the search brings you to a "Too Many Records" page (the page you get when there are > 3,000 results found), then try to reduce the number of records; ideas:
        i. Include the person's last name in the real property search criteria.
        ii. If there are other addresses in the temporary location that are similar to the one being searched, try using one of them instead (e.g., if the address is "1600 Pennsylvania Ave" and find too many records associated with that location and have an alternate address of "1600 Pennsylvania Ave Apt 33", try the latter address).
7. Having pinpointed the property associated with the address stored in the temporary location, copy the address's "APN" (Assessor Parcel Number) to the "Parcel Number" column (if the column does not exist in the "Property" tab, then create the column to the right of the "Property ZIP" column).

    **NOTE: make sure that the address in the "Property Address" column is the one you were seeking as, often, owners provide an address as a correspondence address for property transactions and L/N mixes in records for other properties with correspondences sent to the searched-for address along with records for the actual property.**
8. If there were many different properties in "Property Address" column in the search results for the Real Property search performed above, do the "Real Property" search for the property again using the parcel number, city, and state (this should reduce the results in the search to only those records that are about the property [the previous search would also include records that have the address as the correspondence address for any person associated with the record]).
9. Having found the property you want, click on the property in the "Property Address" column and then click "Run Location Report" in the pop-up. This brings up the location report for the property.
10. On the left of the report is a column titled "Report Content". Click the "Sources" link in it. This brings you to the portion of the report that shows the various source documents used to build up the location report. The two types of reports we care about are "Deed Transfers" and "Tax Assessor Records".

11. Click on the link to the right of "Deed Transfers" (which refers to how many deed and mortgage source documents were used for the report). The page that comes up contains all the deed and mortgage records available via L/N for that property. Using the data from the page, fill in information in the "Property" tab.
    a. Prior to starting a new record in the "Property" tab, copy the identifying columns (A-G) for our target from the "Information" tab over to the "Property" tab in the row that is to be used for this property.
    b. If, at any time during this process, you find that the person shares ownership of a property with someone else, then include that person's information in the "Relations" tab.
        i. Much like for the "Property" tab, copy the identifying columns (A-G) for our target from the "Information" tab over to the "Property" tab in the row that is to be used for this associated person.
    c. Find the earliest deed record in the list with the target (and/or anyone he/she is associated with) listed as "Buyer" and with a "Seller" listed as well. This record should be treated as the document capturing data on the transaction in which the target gains control of the property. Use this deed record to collect the following:
        i. Property Purchase Date: use the "Contract Date," if available, or the "Recording Date".
        ii. Property Purchase Price: use the "Sales Price".
        iii. Mortgage Amount: use "Loan Amount" if available.
        iv. Loan Term (yrs): use the difference between the year of purchase and "Due Date" (e.g., purchase date of 1970-01-01 and due date of 2000 means a loan term of "30").
    d. If there is no deed record listed with the target (and/or anyone he/she is associated with) listed as "Buyer", then try to find the earliest mortgage record in the list with "Mortgage Type" of "PURCHASE MONEY". Treat this record as the document capturing data on the transaction in which the person gains control of the property. Use this mortgage record to collect the following:
        i. Property Purchase Date: use the "Contract Date," if available, or the "Recording Date" (if deed record does not already provide this information).
        ii. First Mortgage Amount: use "Loan Amount" if available.
        iii. First Loan Term (yrs): use the difference between the year of purchase and "Due Date" (e.g., purchase date of 1970-01-01 and due date of 2000 means a loan term of "30").
        iv. First Loan Type: look through the record information to see if there is any information on the sort of loan taken by our target (e.g., if it is a "Fixed-rate" or "ARM" (adjustable rate or variable rate) loan.
        v. First Mortgage Interest Rate: look through the record information to see if there is any information on the interest rate assigned to the loan taken by the target.

e. If there is another mortgage record in the list with the same "Contract Date" or "Recording Date" as the deed record from (c) or "PURCHASE MONEY" mortgage record from (d), then use it to fill out information on a potential second mortgage:
    i. Second Mortgage Amount: use "Loan Amount" if available.
    ii. Second Loan Term (yrs): use the difference between the year of purchase and "Due Date" (e.g., purchase date of 1970-01-01 and due date of 2000 means a loan term of "30").
    iii. Second Loan Type: look through the record information to see if there is any information on the sort of loan taken by our target (e.g., if it is a "Fixed-rate" or "ARM" (adjustable rate or variable rate) loan).
    iv. Second Mortgage Interest Rate: look through the record information to see if there is any information on the interest rate assigned to the loan taken by the target.
f. Find the latest deed record for the property in which the target (and/or anyone he/she is associated with) released control of the property. Consider that record as the document capturing information on the transaction through which the target releases control of the property. Use the record to collect the following:
    i. Property Sale Date: use the "Contract Date," if available, or the "Recording Date".
    ii. Property Sale Price: use the "Sales Price".
g. If there is no deed record in which the target released control of the property, then the property is either:
    i. **Still owned by the target**; evidence that the property is still owned by the target:
        1. There are no assessment/deed/mortgage records with other people as owners of the property with dates that are later than the records associated with our target.
        2. The assessment records for the property with the target's name come pretty close to present-day (e.g., we have assessment records reaching until 2010 or so).
        3. If both the above conditions are met, then set "Still owned" to "Yes".
    ii. **Or sold without a deed record**; evidence that the property is no longer owned by the target:
        1. There are assessment/deed/mortgage records with other people as owners of the property with dates that are later than the records associated with our target; if so:
            a. Still owned: "No".
        2. The assessment records for the property with the target's name do not come close to present-date (e.g., the last record at all for the property is in 2006 or before).

12. There may be several reasons why you may need to look at the tax assessor records for a property:
    a. There is no "Deed Transfers" row in the location report.

b. There are no deed or mortgage records for our target.
c. You were not able to get all the information listed above from either the deed or mortgage records mentioned above.
d. You cannot be sure of whether a target retains control of a property at present.

13. In order to use tax assessor records, click on the link to the right of "Tax Assessor Records" in the "Sources" section of the location report. The page that comes up contains all the tax assessor records available via L/N for that property.
14. For purposes 12(a)-(c), find assessment records for the property with the target's name (or the name of someone associated with the target) as the "Owner". Use such assessment records to collect the following data if you were unable to do so via deed and mortgage records:
    a. Property Purchase Date: use the "Recording Date".
    b. Property Purchase Price: use the "Sale Price".
    c. First Mortgage Amount: use the "Loan Amount".
    d. Note that these pieces of information are not always available in the assessment record.
    e. Within the tax assessor records, find the assessment record that has an "Assessment Year" that is either the same as the year that our target purchased the property or is after and the closest in time to the purchase year (e.g., if property is bought in 2002, and assessment record in 2002 is not available, then 2003's assessment record is preferable to the one from 2004); use that assessment record for:
        i. Property Assessed Value (Purchase Year or first year after): use "Total Assessed Value" if available; if not available, use the value that seems to be the one that the local government uses to assess the taxes for the property.
        ii. Assessment Year: use the "Assessment Year".
15. For finding information on the transaction wherein the target released control of the property using tax assessor records (reason 12(d)), find a tax assessment record for a person who owns the property after our target. Such assessment records can be used to fill in the following information:
    a. Property Sale Date: use the "Recording Date".
    b. Property Sale Price: use the "Sale Price".

    **NOTE: Often, such records also have information on "Prior Recording Date" and "Prior Sale Price". If you were not able to collect purchase date and purchase price information using any of the methods described above, use the "Prior Recording Date" to record the Property Purchase Date for our target and the "Prior Sale Price" to record the Property Purchase Price for our target.**