# Homeownership, the Great Recession, and Wealth:

Evidence from the Survey of Consumer Finances

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#### Abstract

The owned home is central to both the American Dream and the financial lives of American households. This paper explores the financial trajectories of homeowners during the great recession, assessing the viability of positioning home equity at the core of a household's balance sheet. Using the 2007-9 reinterview panel of the Survey of Consumer Finances, we describe the diverse balance sheets of groups of typical homeowning households. While homeowners lost equity and wealth in the great recession, we find that an owned home introduced severe risk of loss, but dampened the risk of severe loss in balance sheet terms. The experience of homeowners' balance sheets during the downturn was diverse and the typical experiences of different groups are compared and contrasted.

Key words: Great Recession; homeownership; net worth; Survey of Consumer Finances; wealth

For generations, homeownership has been considered a fundamental piece of the American Dream and home equity has represented a key component of household balance sheets. Most U.S. households hold most of their wealth in home equity (Bucks, Kennickell, Mach, & Moore, 2009; Dickerson, 2009: Quercia, Freeman, & Ratcliffe, 2011). In addition, research shows that homeownership is positively associated with many benefits at the individual, family, neighborhood, and community levels.

At the individual level, homeownership appears to enhance overall life satisfaction and improve health outcomes. At the family level, homeownership is positively associated with participation in the labor force by parents and with educational attainment among children. At the neighborhood and community levels, homeownership is positively associated with upkeep of housing, improvements to property, and stability of the local area (Coulson & Fisher, 2002; Dietz & Haurin, 2003; Herbert & Belsky, 2008; Robert & House, 1996; Rossi & Weber, 1996; Scanlon & Page-Adams, 2001; Van Zandt & Rohe, 2006). Because of the growing evidence of its benefits, homeownership is often viewed as a tool for social and economic mobility. During the last 20 years, considerable efforts have been made to increase homeownership opportunities for families in all strata of American society. Over the same period, scholars and policymakers have brought increasing attention to the multitude of barriers faced by low-income and minority families that pursue homeownership (Barakova, Bostic, Calem, & Wachter, 2003; Collins, 2004; Di & Liu, 2004; Haurin & Morrow-Jones, 2006; Herbert & Tsen, 2005; Ratner, 1996; Santiago & Galster, 2004; Zhao, Ondrich, & Yinger, 2006). These obstacles include financial impediments; lack of information about the home-buying process; lack of experience with that process; severe shortages of affordable housing, especially in desirable neighborhoods; and real estate and lending industry practices that discriminate against minority families.

Such obstacles combine with other factors to create a substantial income-based disparity in homeownership. This gap is clearly reflected in data used by Herbert and Tsen (2005) to compare homeownership rates of very-low-income households (i.e., income at or below 50% of the area median income) with the rates of high-income households (i.e., income of at least 120% of the area median income). Although 51% of very-low-income households (88%; Herbert & Tsen, 2005).

The racial and ethnic gaps in homeownership are equally troublesome. Seven of 10 White families own their home, but the rate is only four in 10 among Black and Latino families (Quercia et al., 2011). The implications of these gaps are substantial and far reaching because most U.S. households build wealth and improve their balance sheet through home equity. Thus, the disparities in homeownership rates translate to a significant gap in housing wealth across various income, racial, and ethnic groups.

The housing-wealth gap stimulated regulatory changes and the development of new programs. These developments seek to improve rates of homeownership among low-income and minority families by increasing their access to fair and affordable mortgage products. The best of these efforts focus on safe lending practices and provide support services for first-time homebuyers. The Community Advantage Program and Individual Development Accounts (IDAs) are important examples. However, other efforts are exploitative. Predatory lending practices, high-risk products, improper lending processes, and similar efforts resulted in high rates of mortgage default and the catastrophic housing crisis (Quercia et al., 2011).

Nevertheless, through the housing crisis and economic downturn, home equity has remained a major part of the balance sheet for American households. This paper uses panel data from the Survey of Consumer Finances (SCF) to examine homeownership as a component of the household balance sheet. It explores the various trajectories of wealth loss and gain among distinct segments of homeowners. It follows these trajectories from 2007 through 2009.

# Prevalence of Homeownership

Over last 20 years, dynamics in the U.S. housing market created a new picture of homeownership. The housing market experienced unprecedented growth and expansion, reaching an all-time high; at the market's peak, almost 70% of U.S. households owned their homes (U.S. Census Bureau 2013). This expansion included households at all income levels, with significant growth occurring among low- and moderate-income (LMI) households. When this housing bubble burst in 2008, the sudden collapse created a perfect storm of foreclosures and declining home values. This, in turn, triggered the nation's economic downturn (DeSilva & Elmelech, 2012). Even with these dramatic changes in

the housing market, homeownership remains at a record high: 67.1% of U.S. households own their homes (DeSilva & Elmelech, 2012).

The continued high rate of homeownership is important because home equity is a key mechanism for accumulating wealth. The wealth invested in the owner-occupied homes of LMI households is the largest source of savings for those households. It surpasses total investments in such other assets as retirement and savings accounts (Bucks, Kennickell, Mach, & Moore, 2009; Dickerson, 2009: Quercia, Freeman, & Ratcliffe, 2011). Homeowners in the United States hold an average of 48% of their total household wealth in their home equity (Di, Yang, & Liu, 2005). However, this critically important means of building net worth is less accessible to households in the lowest fifth of the income scale than to other households: about half of these low-income households own a home (Carasso, Bell, Olsen, & Steuerle, 2005).

Nevertheless, increases in LMI homeownership account for much of the overall increase in homeownership that has occurred over the last half century. The national rate of homeownership increased almost 5% during the 45-year period between 1960 and 2005. During this period, homeownership among low-income minority households increased at a faster rate than that among other segments of the population (Belsky & Duda, 2002). For example, in a 5-year period between 1994 and 1999, the number of low-income minority households that owned a home increased by more than 800,000 (Belsky & Duda, 2002). These increases clearly suggest that LMI households desire and will pursue homeownership if they are able to overcome the barriers that prevent it.

#### Homeownership: A Safe Financial Investment?

The recent crises in the housing and mortgage industries wiped out millions of dollars of home equity, jeopardizing the financial security of home-owning households, and particularly of LMI homeowners. The spread of this financial vulnerability led many experts to call for a reexamination of the goal of homeownership and to urge the nation to rethink the American Dream (see, e.g., Dickerson, 2009; Van Zandt and Rohe, 2011; Fellowes and Mabanta, 2007).

A relatively recent literature review by Herbert and Belsky (2008) focuses on the empirical evidence for the relationship between homeownership and long-term wealth accumulation among lowincome and minority households in the United States.<sup>1</sup> Herbert and Belsky conclude that homeownership improves the average household's balance sheet over the long-term. In addition, the review finds evidence that homeownership's positive effects on the household balance sheet are stronger for low-income homeowners than for their high-income counterparts. Although highincome homeowners historically gain more from homeownership in absolute terms, those gains are related to such other factors as levels of income, education, and net worth. The factors are preexisting conditions among this group. Nevertheless, one caveat must be considered: most of the evidence examined in Herbert and Belsky's review comes from studies conducted before the onset of the housing crisis in 2006–7.

Similar findings emerge from a study by Di et al. (2007). They examine 18 years of data from the Panel Study of Income Dynamics (collected 1984–2001) to compare differences in the net worth gains of homeowners and renters. This longitudinal evaluation of tenure status shows that homeowners have significantly higher net worth accumulation than do renters. In addition, Di and

<sup>&</sup>lt;sup>1</sup> For additional discussion on the relationship, see Boehm & Schlottman, 1999; Di, Belsky, & Liu, 2007; Di, Yang, & Liu, 2003.

colleagues (2007) find that longer periods of homeownership are associated with greater accumulation of net worth. The finding of an association between net worth accumulation and homeownership is consistent with the findings from an earlier study conducted by Di et al. (2003). That study examines the same panel data, finding that low-income homeowners who maintained homeownership throughout the 18-year study period report an average of 8 times more net worth than that reported by people who rented their home during the study period (Di et al., 2003). It is important to note that the findings of the 2003 study are considered especially trustworthy because the analysis controls for household characteristics (e.g., initial levels of net worth and the household's prior savings behavior) that could confound the effects of homeownership on a household's ability to accumulate net worth.

Last, research shows that homeownership is similar to other investments in that market conditions (e.g., demand for owner-occupied housing) and the overall condition of the economy at a specific time determine whether it is effective in building net worth (Rappaport, 2010). The timing of investment in homeownership is especially important for LMI households because they are likely to have few liquid assets and, therefore, are less able than other households to weather long periods of unfavorable market conditions (Belsky & Duda, 2002).

A contrasting perspective on homeownership emerges from Rappaport's (2010) comparison of net worth held by homeowners and renters over the course of 10-year occupancies. Rappaport finds that, in some periods, homeowners experience greater net worth gains than renters do; in other periods, renters who invest in stocks and bonds have greater net worth gains than do homeowners. His conclusion is perhaps not surprising given the recent declines in home prices. During the period from 2000 through 2009, renting a home and investing money in areas other than housing yielded greater return on investment than purchasing a home. An important caveat is that Rappaport's study tracks and compares the net worth trajectories of hypothetical renters and owners but holds constant household composition, income, and nonhousing spending.

#### Data and Measurement

This paper uses data from the 2007 triennial cross-section of the SCF. The survey oversampled high-net worth households, but the weighted sample is statistically representative of the United States population in 2007 (Bricker et al., 2011). The SCF is generally considered the gold standard in data for understanding the net worth holdings of the American public. The 2007 SCF sample is unique in that the Federal Reserve reinterviewed the panel in 2009 to track participants' net worth trajectories over the course of the Great Recession; SCF cohorts are usually interviewed only once.

Using panel data poses several challenges for interpretation. First, because the SCF reinterviewed the original panel, the 2009 interview data are representative not of the 2009 population but of the 2007 population. Second, the pattern of response to the follow-up survey may bias findings on the 2009 net worth levels and the change in those levels from 2007 to 2009. In 2009, the SCF successfully reinterviewed about 90% of those participants in the 2007 panel. Some suspect that survivorship bias may influence results from the data (Bricker, Bucks et al. 2012). Those with better trajectories from 2007 to 2009 may be more likely to respond in 2009. Even with these complications, the 2007–9 reinterviewed panel is an unparalleled resource for examining changes in household net worth during the Great Recession.

Several characteristics of these data are broadly consistent with the characteristics of data from other SCF cohorts and with the characteristics of general data that measure net worth. Across data sets, data on net worth are often missing; some respondents do not know the requested values of specific holdings, and some are reluctant to share sensitive information with interviewers. Although the typical number of missing cases for a given item may be small, the number increases quickly if values for these items are summed to aggregates like net worth or total assets. Because the overall proportion of missing information is quite small, values for these missing data are almost always imputed. The SCF data are no exception; the public-use SCF data files employed here are released as five complete-information implicates (Kennickell, 2011).

#### The measurement of net worth

In this paper, we operationalize wealth as net worth. Net worth is the sum of the value of all assets held by a household less the debt owed. The SCF instrument asks about a comprehensive set of products and accounts used to store value and accrue debt. To facilitate presentation, we group these assets and debts into the categories shown in Figure 1. The categories capture all assets and debts measured in the SCF (Bricker, Bucks et al. 2012). The Miscellaneous assets category captures a broad range of property that stores value and can amount to a substantial sum (e.g., the value of all the appliances, electronics, and furniture found in an owned home).

# [Figure 1 about here]

For some analyses, we disaggregate housing equity (home value less home debt) from nonequity net worth. The value for nonequity net worth is net worth (as described above) less home equity. This measure captures household wealth that is not tied up in housing.

All of the asset and debt values included in the analysis are self-reported by respondents and are presented in constant 2009 dollars. Some respondents may overestimate or underestimate values. In particular, other research finds that user-reported property values underestimate declines in housing markets during the recession (Quercia et al., 2011).

It should be noted that the SCF asked respondents about the value of assets and debts at the time of each interview wave (2007 and 2009) and did not intend the resulting data to be used in estimating change between the two time points. The change results presented here represent the simple difference between the values at the two points. We use two sets of results to represent changes in values: the change in dollars from 2007 to 2009 and the change from 2007 to 2009 as a percentage of 2007 value. Each measure offers valuable insights into the dynamics of households' experiences and highlights facets of those experiences. Such details are missed by focusing on one or the other. For cases in which the 2007 net worth is less than zero, the percentage change is given by sign (2007–9 change) × absolute value (2007–9 change/2007 value). This produces an approximation of the magnitude of change and maintains the directional quality of the change.

#### Selection of samples

The sample for this study includes 3,728 households. This paper focuses primarily on the economic fates of 2,384 households that owned homes in 2007 and completed both rounds of the SCF. In 2007, the net worth and household balance sheets of owners differed dramatically from those of the 1,344 renters in the 2007 SCF sample, and the differences make accurate comparisons deeply

problematic. For reference, we juxtapose some findings for homeowners with those for renters (see table 6 below).

To gain additional traction on the dynamics of net worth among homeowners, we look at the overall population of SCF homeowners and at subsamples of homeowners defined by 2007 characteristics. We choose these subsamples because the defining characteristic of each is associated with prior findings on differential net worth trajectories. We examine all homeowners and then divide the sample by race and by net worth in 2007. The net worth categories represent quintiles in the weighted distribution of the full sample's net worth in 2007. The weighted net worth distribution of the 2007 SCF sample is considered consistent with the actual distribution of net worth in the 2007 U.S. population (Bricker, Bucks et al., 2012).

Table 1 shows the approximate sample size of each of the subgroups analyzed in the paper. Because of the weighting and imputation used in the data, one respondent does not map directly to one case (Kennickell, 2011). It should be noted that very few cases comprise some of the analyzed subgroups, particularly in the Hispanic, Other, and bottom 20% categories. Thus, estimates for these groups are sensitive to influence from small numbers of idiosyncratic cases. Although these figures represent the underlying reality observed in the data, there is a substantial risk of measurement error.

# [Table 1 about here]

#### Methods

This paper employs a straightforward approach to describe the net worth holding and net worth trajectories of homeowners before and through the Great Recession. To account for challenging features in the data, we employ several noteworthy methods. Importantly, each analysis is performed on each implicate and the results are combined for presentation and discussion.

For the numerical presentation of balance sheets before, during, and after the recession, we use waterfall accounting tables. These tables sum from top to bottom. Outliers have significant leverage in these net worth data, and we adopt several modifications to the standard approach of presenting means. Because we are interested in the trajectory of typical households, we begin by selecting the households in the presented group whose change in net worth (in dollars) from 2007 through 2009 is between the 25th and 75th percentile of change in that group. Analyses are performed on the selected group of households. Selecting based on 2007 values leads to heavily inflated estimates of change in net worth. Use of the median (as in Table 2) yields tables that do not sum internally and makes it hard to see how categories of net worth (which are underestimated at the median) sum to large aggregates.

Proportions and distributions reported in the paper are produced using all available cases for the selected group. All estimates are produced using weighting variables packaged with the publically distributed data<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> Information on the weights used can be found on the Survey of Consumer Finances website at http://www.federalreserve.gov/econresdata/scf/scf\_2009pweight.htm

#### Results

The balance sheets of homeowners in the period from 2007 to 2009 are characterized by deep heterogeneity in composition and trajectory. A small number of households experiences monumental gains and losses in net worth, but most experience relatively small shifts. American homeowners hold their assets in a dizzying array of accounts (formal and informal) and products. They have a broad range of debts. In a balance sheet, choices about asset and debt allocation are understood to be fungible. That is to say, a household can choose to allocate a dollar to liquid savings or to paying down debt, and the snapshot of the balance sheet presented here remains the same regardless of the choice.

#### Patterns of asset owning

Amid this heterogeneity, one constant emerges: the value of an owned home tends to dominate the asset side of the household balance sheet. Figure 2 shows the composition of the asset holdings of home-owning households, which are grouped by quintiles of 2007 net worth. Each quintile bar represents the average distribution of 2007 household assets across six measured asset categories.

# [Figure 2 about here]

We observe that, among households whose 2007 net worth puts them in the lowest quintile of the population, the value of housing accounts, on average, for 70% of the household's assets. Housing and physical assets together account for over 90%. The asset portfolios of wealthier quintiles are not as centered on home value; however, housing accounts for the largest share of assets in every quintile but the top one. On average, those in the second quintile hold almost 70% of assets in home value; those in the middle quintile hold about 60%, those in the fourth quintile hold about 44%, and those in the top quintile hold about 28%. The assets of homeowners, and especially low-net-worth homeowners, are concentrated in the owned home. Those households are deeply exposed to broad downturns in housing prices and own relatively few nonhousing assets. Also, high-net-worth homeowners are relatively more exposed to shocks in financial markets because of their retirement savings and financial assets.

It is notable that, on average, no quintile holds more than 5% of assets in transaction accounts (assets in such accounts are often treated as liquid assets for the purpose of assessing a household's preparedness for emergencies). Likewise, financial assets and retirement savings comprise a relatively limited proportion of the household balance sheets in the bottom three quintiles.

# Typical households and trajectory

Table 2 shows the balance sheet of a typical home-owning household in 2007, the changes to that balance sheet between 2007 and 2009, and the household's 2009 balance sheet. To address outliers, one column presents estimates for homeowners between the 25th and 75th percentiles of the distribution of the 2007–9 change in net worth. The second column presents sample-weighted median values for all homeowners in the SCF sample. In this table, dashes indicate that fewer than half of households hold the asset or debt under consideration. Figures in the Median column do not sum top to bottom.

# [Table 2 about here]

Estimates in the table support the preceding discussion: both sides of the typical homeowner's balance sheet are heavily dominated by the owned home in both 2007 and in 2009. This is true in estimates for both the constrained mean (25th–75th percentiles of change in net worth) and the median. The typical home-owning household lost between \$30,000 and \$40,000 in net worth—about 10% of the total—in this 2-year period. For that household, declines in housing values drive the change in net worth.

Figures 3–5 disaggregate the distribution of change in net worth between 2007 and 2009. These kernel density plots show the probability distribution of the change, which is expressed as a percentage of 2007 value. The height of each plot represents the likelihood of a case being found at a given point.

# [Figure 3 about here]

Consistent with the preceding description of the typical household's trajectory, Figure 3 shows that the peak of the distribution for change in net worth is below zero, indicating that most households lost net worth over this period. Nonetheless, a nontrivial proportion of cases experienced positive change in net worth over the observed period.

Figures 4 and 5 disaggregate net worth into nonhousing net worth and home equity. The figures show the probability distribution of these variables, and the distributions are again expressed as percentage changes from 2007 to 2009. Interestingly, the peak of the equity distribution is tightly centered on zero (though still negative), but the nonhousing net-worth distribution is further left. The low volume of nonhousing net worth held by most households in 2007 may inflate the magnitude of the observed percentage change. Still, the two distributions suggest that although the concentration of net worth in home equity drove changes in net worth between 2007 and 2009, households realized substantial losses in other areas of the balance sheet.

# [Figures 4 and 5 about here]

#### Race

As the general trends suggest, the balance sheet effects of the Great Recession were far from uniform. To further explore these effects, we examine trends for subgroups of homeowners; we start with racial and ethnic subgroups. As mentioned, the estimates for the Hispanic and Other categories are sensitive to the influence of anomalous cases because the number of cases in each group is small.

Figure 6 shows the change in nonhousing net worth by race. The y-axis represents the mean percentages of change from the 2007 level. For reasons discussed above, the figure only presents percentages for households in the 25th–75th percentiles of the group's distribution of change in net worth (e.g., the results for Black households only present estimates of the percentage changes among Black households whose change in net worth places them in the 25th–75th percentiles of the distribution of change).

# [Figure 6 about here]

The figure shows that the average percentage change in nonequity net worth is similar across groups (excepting the Other group, which experiences growth in nonequity net worth) but that the change

in home equity differs across groups. Between 2007 and 2009, the typical White household lost less than half as much home equity as did households in Other racial and ethnic groups. This pattern of change could reflect a number of factors, including neighborhood effects, choice of housing stock, discrimination in housing markets, and systemic differences in self-reporting of changing housing values in the downturn.

Although the loss of net worth is larger for the typical household of color than for the typical white household, the estimates suggest that Black and Hispanic households are not substantially more likely to lose net worth in general. Figure 7 shows the proportion of households that lose net worth and disaggregates the proportions by the extent of losses.

# [Figure 7 about here]

The first (Lose net worth) bar from each group suggests that most households lost net worth in the recession and that differences among the groups are not large. Although the odds of any loss of net worth are similar across groups, Black homeowners are significantly more likely than homeowners of Other races to lose a large portion of net worth. About a third of Black households lost at least half of their 2007 net worth, and almost half lost at least 25% of their 2007 net worth. The proportions with such losses are substantially higher among Black homeowners than among those in the three other groups.

Table 3 offers additional detail on racial differences in the change in net worth among homeowners between 2007 and 2009. We begin by noting that the 2007 net worth of White home-owning households differs from that of their Black counterparts; the White households report about \$140,000 more in net worth and about twice as much in liquid assets. The two groups owe similar amounts of housing debt, but White households' housing assets are worth substantially more.

# [Table 3 about here]

In dollar terms, the loss of net worth is slightly larger for the typical Black homeowner than for the typical White counterpart. The losses expanded the racial net worth gap observed in 2007. The narrowing of racial gaps in financial assets and retirement savings between 2007 and 2009 is attributable to greater exposure to loss among white homeowners in 2007.

#### 2007 net worth

Next, we examine the changes in net worth among homeowners grouped by their level of net worth in 2007. Figures 8 and 9 offer distinct views of changes in the different quintiles of the 2007 networth distribution. These figures present the quintiles of the net-worth distribution for the full SCF population (including renters); it is noteworthy that only 55 homeowners from a sample of over 3,000 are in the bottom quintile of wealth.

# [Figs 8 & 9 about here]

Figure 8 shows dollar-amount changes in nonequity net worth and in home equity. The magnitude of the losses experienced by the typical household in the top quintile dwarf those incurred by counterparts in the less wealthy quintiles. The top-quintile household lost more in nonhousing net worth between 2007 and 2009 than lower quintile households held in 2007. That quintile also lost the most home equity—\$60,000 on average. The growth in nonequity net worth in the bottom

quintile reflects a discharge of atypically large amounts of miscellaneous debt by a small number of households. In the second quintile, the typical homeowner experienced a small increase in nonequity net worth between 2007 and 2009.

Figure 9 presents the same changes but scales those changes by 2007 levels of nonequity net worth and home equity. It shows that those in the top quintile still have the largest losses in nonequity net worth, but the differences are less dramatic. This reflects the top quintile's relatively high exposure to turbulent financial markets in 2007. The typical household in all of the groups lost equity between 2007 and 2009. The few households in the bottom quintile experience the largest losses. As a proportion of the original value, the loss incurred is similar across the top three quintiles of 2007 net worth.

Table 4 further explores the dynamics of the change in net worth by detailing the balance sheet of typical homeowning households in the bottom, middle, and top quintiles, as defined above. The table is divided into two vertical panels: one for 2007 net worth and another for the 2007–9 change in net worth. In the 2007 panel, the imbalance in net worth across quintiles is obvious. Households in the top quintile hold much more, particularly in financial, retirement, and miscellaneous assets, than do those in the middle quintile—often an order of magnitude more.

# [Table 4 about here]

The second (2007–9 change) panel shows the market exposure of top-quintile households, which incur sizable nonhousing losses. The middle quintile losses assets but also discharges debt during the recession. As noted above, the net worth gain shown for bottom quintile households reflects the discharge of large debts by anomalous cases, and the effect of those cases is magnified by the small number of cases in that quintile.

Overall, the home dominates both sides of most household balance sheets, and the trajectory of home equity is the trajectory of net worth for the vast majority during the Great Recession. If one excepts high-net-worth households with substantial holdings in financial assets, the fate of the home parallels the fate of the household's net worth. For groups like Black homeowners, this concentration of exposure in the value of the home means that the recession had a deep impact on the household balance sheet.

# Mobility

In this section, we examine mobility across net-worth quintiles between 2007 and 2009. We define mobility as relative mobility, wealth in 2009 that locates the household in a different net-worth quintile in the 2009 distribution than they occupied with in the 2007 distribution with the 2007 net worth. We bring in renting households to supplement the insights, and the findings are presented in Table 5. The table compares 2007 net-worth quintiles (rows) and 2009 net-worth quintiles (columns). Each cell presents a percentage of the sample. For instance, among all respondents, 15.6% were in the lowest net-worth quintile in both 2007 and 2009. Percentages in the shaded cells represent members who report no mobility in this period.

# [Tables 5 about here]

The table's top panel shows the net-worth mobility for all SCF respondents (renters and owners). The middle panel shows the same for all 2007 homeowners, and the bottom panel shows it for all

2007 renters. It should be noted that very few owners were in the bottom quintile of net worth in 2007 and very few renters were in the top quintiles. This reflects the dominant role that an owned home plays as an investment vehicle on the American household's balance sheet.

Building from the numbers presented in table 5, almost three fourths of respondents are in the same net-worth quintile at both points. Homeowners are more likely than renters to be in the same quintile (76% vs. 70%). A larger proportion of renters than owners have upward mobility. As expected, we observe very few sizable changes upward or downward. Overall, only 2% of respondents move more than one quintile up or down, and no respondent moves more than two quintiles. These results suggest that the net-worth distribution is fairly durable in this period and that large-magnitude shifts are rare in short time horizons.

#### Owning and renting: A juxtaposition

Having shown some of the Great Recession's effects on homeowners, we now compare them with renters to develop a causal story about the role of an owned home on the balance sheet during the recession. Table 6 compares owners and renters on a variety of measures.

# [Table 6 about here]

The table's first row presents results from a comparison on the median value of 2007 net worth. The results speak to the difficulty of rigorously evaluating the differences between the groups. Put simply, the differences between the groups are large enough that their balance sheets largely incomparable.

Nonetheless, several cautious observations can be drawn from the patterns of net-worth loss. First, homeowners are definitionally exposed to the housing market in ways that renters are not. This surely contributes to the larger losses experienced by owners and to the higher proportion of owners who incurred losses. Although more likely to lose net worth than renters, owners are less likely to lose a quarter or half of their net worth. Surely part of this is the smaller denominator of renters (2007 net worth), but those results also could suggest that an owned home acts as a buffer against large losses. This is a fruitful line for future research with a more comparable cohort of renters and owners.

# Discussion

This paper uses panel data from the 2007 reinterview panel of the SCF to examine homeownership as a component of the household balance sheet and to explore the various trajectories of net worth among distinct segments of homeowners. The results presented here indicate that, even during the housing crisis and the Great Recession, home equity has continued to be the dominant component of the balance sheet for American homeowners. Home equity represents the largest share of the balance sheets for low-, moderate-, and high-net worth households. It accounts for 70% of the total net worth of households in the bottom 40% of net worth. The story is different for households in the top net-worth quintile, but home equity still accounts for 30% of the net worth of these households.

We also find that homeowners are deeply heterogeneous in terms of both losses and gains. In absolute terms, wealthier homeowners lose more home equity, but homeowners with lower initial net worth lose a greater share of their total net worth. Compared with losses in home equity, nonequity losses account for a larger proportion of homeowners' net worth losses between 2007

and 2009. Households with the highest net worth hold substantially greater nonequity assets than other households do and so lose substantially more nonequity net worth in both absolute and relative terms. Overall, most homeowners lost net worth during the recession; the typical homeowner lost about 10%, or \$40,000, between 2007 and 2009. The proportion of homeowners who lose net worth is larger than the proportion of renters who did so; however, renters are more likely than owners to lose a least 25% of their net worth. Homeownership appears to expose households to loss but also to protect against severe loss.

Our results are consistent with previous findings suggesting that the economic downturn disproportionately affected racial and ethnic minorities. During the period between 2007 and 2009, Hispanics experienced a 32% drop in home equity, Blacks experienced a 31% drop, and Whites experienced a 15% drop. Equity changes for the Other racial/ethnic category are difficult to interpret because this group consists of less than 5% of the 2007 SCF population. Blacks and Hispanics lose significantly more home equity than nonequity net worth. Although Blacks and Hispanics lose similar proportions of net worth, Blacks have the largest proportion of households that lose at least 50% of net worth. These results reinforce the notion that the housing crisis hit Blacks and Hispanics the hardest. The disproportionate effect could also stem from interactions among residential segregation, neighborhood effects, the disproportionate targeting of Blacks and Hispanics by predatory lenders, and expensive, risky mortgage products.

Among both owners and renters, there is relatively little net-worth mobility between 2007 and 2009. This suggests that changes in net worth, both positive and negative changes, were generally modest over the course of the Great Recession. Although some households incur very large losses or gains, such households are very much in the minority. Three fourths of all households are in the same net-worth quintile at both points. Transitions of two quintiles are very rare, and no household gains or loses enough net worth to move three or more quintiles. The net worth distribution of the United States, both among renters and among owners, is markedly stable in the period of observation.

The owned home is the cornerstone of homeowners' balance sheets and the investment of choice for those households with stocks of assets. Because of the concentration of assets in the home and the minimal exposure of most homeowners to financial asset markets, the net worth of homeowners closely tracks the value of their home. Although this exposes them to risk when home prices drop, the historic stability of prices and the natural floor value of the home and its land may act as cushions against losses of substantial magnitude.

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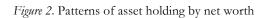
Assets		Debts		
Transaction	Checking account Savings account	Credit	Credit cards Other consumer debt	
Housing	Home value	Housing	Mortgage (or mortgages	
Physical	Other property Business Cars Other vehicles	Other physical	Debt to business Car (or cars) Other vehicles	
Financial	Mutual funds Certificates of deposit Savings bonds Other bonds Stocks Brokerage accounts Annuities	Education	Student debt	
Retirement	IRA 401(k) Pension	Miscellaneous	Other lines of credit Margin loans Other	
Miscellaneous	Life insurance Personal debt owed Business debt owed Other (cash, valuables)			

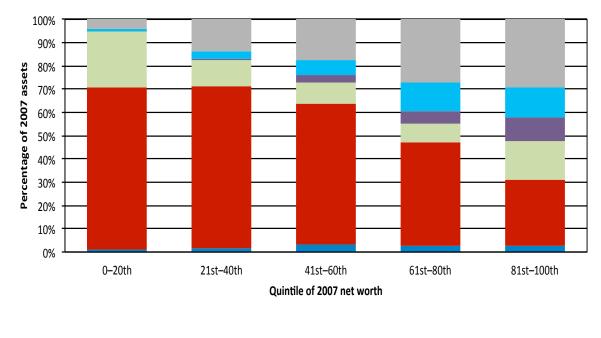
Figure 1. Components of net worth

*Note:* IRA = individual retirement account. Net worth = total assets total debts.

Table 1. Sample Sizes

Category	Approximate Sample		
Overall	3,728		
Owners	2,384		
Renters	1,344		
Among owners			
Race			
White	2,125		
Black	264		
Hispanic	165		
Other	111		
Net worth			
Bottom 20%	55		
21–40	420		
Middle 20%	658		
61-80	747		
Top 20%	784		





Transaction accounts	Housing	Physical assets	Financial assets	Retirement savings	Miscellanious
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Table 2 Balance Sheet of Typical Homeowners: 2007, 2009, and Change (2007–9)
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	Mean of Households between 25th and 75th	
Balance Sheet	Percentiles of Change in Net Worth	Median <sup>a</sup>
2007		
Assets		
Liquid <sup>b</sup>	11,979	6,000
Housing	201,799	205,000
Other physical	52,203	25,000
Financial	26,946	500
Retirement	48,986	17,000
Miscellaneous	122,053	75,000
Total	463,966	498,800
Debts	· · · · <b>)</b> , · · ·	,
Credit	4,393	250
Housing	76,716	72,000
Other physical	11,333	
Education	3,171	_
Miscellaneous	2,055	-
Total	97,668	
Net worth 2009	366,298	382,890
Assets	10 (25	( 000
Liquid <sup>b</sup>	12,635	6,000
Housing	172,544	180,000
Other physical	50,185	22,000
Financial	24,624	270
Retirement	44,346	17,000
Miscellaneous	118,745	75,000
Total	423,079	468,000
Debts		
Credit	4,656	_
Housing	69,750	60,000
Other physical	16,050	_
Education	4,008	_
Miscellaneous	2,061	_
Total	96,525	86,499
Net worth	326,554	347,041
Change (2007–9)		o,o
Assets		
Liquid <sup>b</sup>	656	_
Housing	-29,255	-17,000
Other physical	-2,018	-3,000
Financial	-2,323	-5,000
Retirement	-4,639	—
Miscellaneous		_
	-3,308 40,887	21 200
Total Debte	-40,887	-31,300
Debts	2/1	
Credit	264	-
Housing	-6,966	_
Other physical	4,717	_
Education	837	-
Miscellaneous	6	-
Total	-1,143	-
Net worth	-39,744	-33,780

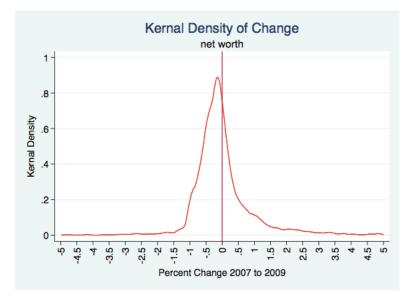
*Note:* Dashes in cells indicate that fewer than half of households hold the asset or debt under consideration. Figures in the Median column do not sum top to bottom.

<sup>b</sup> Liquid assets include those held in transaction (i.e., checking and savings) accounts.

<sup>&</sup>lt;sup>a</sup> All home-owning households.

#### Figures 3-5. Kernal density plots of percentage change in net worth, home equity, and nonhousing net worth

Figure 3. Kernal density of percentage change: Net worth



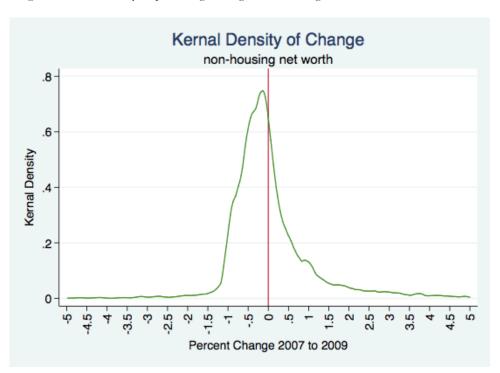
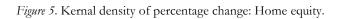
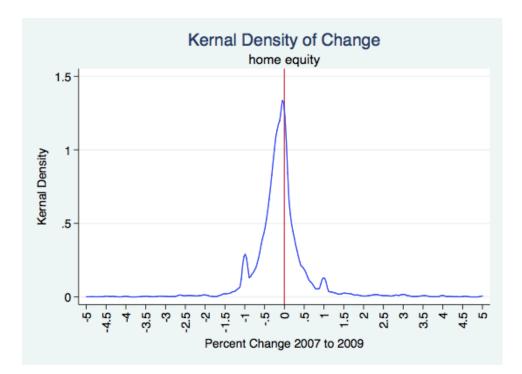
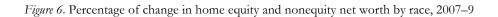
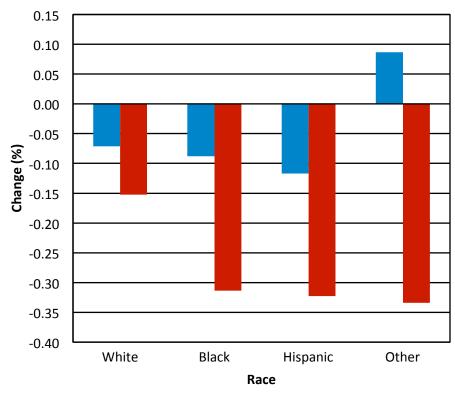


Figure 4. Kernal density of percentage change: Nonhousing net worth

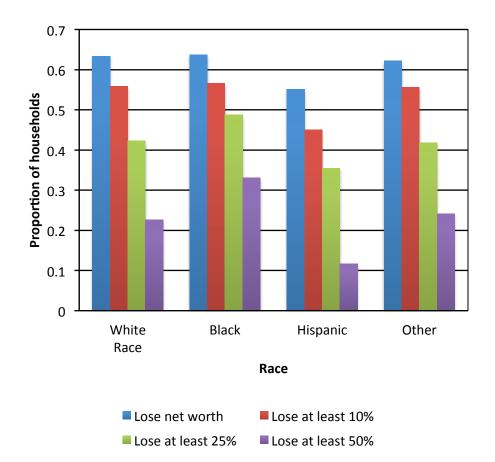


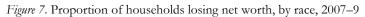






% change in non-equity net worth
% change in home equity



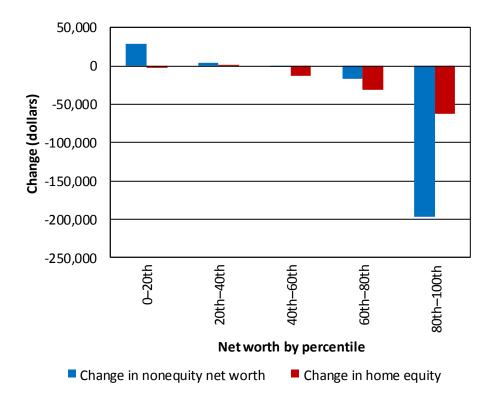


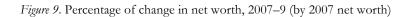
Balance Sheet item	White	Black
2007		
Assets		
Liquid <sup>a</sup>	13,400	6,165
Housing	202,294	171,195
Other physical	56,822	24,287
Financial	31,416	3,347
Retirement	54,087	20,680
Miscellaneous	126,416	106,638
Total	484,434	332,311
Debts		
Credit	4,515	2,833
Housing	72,407	68,464
Other physical	11,781	7,284
Education	3,239	3,668
Miscellaneous	2,161	142
Total	94,103	82,392
Net worth	390,331	249,920
2009		
Assets		
Liquid <sup>a</sup>	14,229	5,767
Housing	177,243	128,549
Other physical	53,922	28,873
Financial	28,676	1,569
Retirement	49,094	17,587
Miscellaneous	122,544	107,663
Total	445,707	290,010
Debts	,	,
Credit	4,929	2,511
Housing	67,167	58,036
Other physical	15,354	19,253
Education	4,072	4,686
Miscellaneous	2,247	743
Total	93,770	85,230
Net worth	351,938	204,780
Change (2007–2009)	,	,
Assets		
Liquid <sup>a</sup>	829	-398
Housing	-25,051	-42,646
Other physical	-2,900	4,586
Financial	-2,739	-1,777
Retirement	-4,993	-3,092
Miscellaneous	-3,872	1,025
Total	-38,727	-42,302
Debts	,	,
Credit	414	-322
Housing	-5,240	-10,428
Other physical	3,573	11,969
Education	833	1,018
Miscellaneous	87	601
Total	-333	2,838
Net worth	-38,394	-45,140

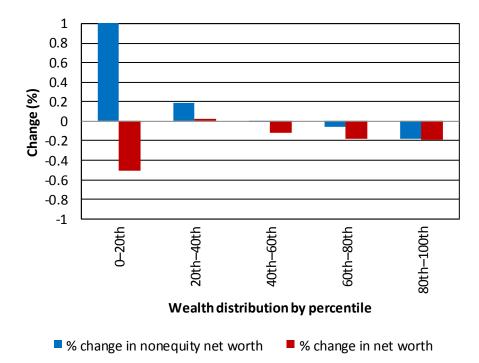
Table 3. Household Balance Sheets of Homeowners by Race (in 2009 Dollars)

<sup>a</sup> Liquid assets include those held in transaction (i.e., checking and savings) accounts.

Figure 8. Change (in 2009 dollars) in net worth, 2007-9 (by 2007 net worth)







		2007		Change 2007–2009		
Balance Sheet Item	Bottom 20%	Middle 20%	Тор 20%	Bottom 20%	Middle 20%	Top 20%
Assets						
Liquid <sup>a</sup>	1,205	8,407	43,162	145	-122	-3,271
Housing	98,118	158,711	442,576	-20,445	-16,350	-72,673
Other physical	33,282	23,090	261,858	-18,356	-2,295	-42,957
Financial	549	8,644	157,599	-84	-24	-29,089
Retirement	1,511	16,289	206,240	820	905	-43,042
Miscellaneous	5,378	46,012	458,805	21,377	2,447	-65,955
Total	140,043	261,153	1,570,239	-16,544	-15,440	-256,988
Debts						
Credit	12,493	2,750	3,578	-7,986	528	865
Housing	92,570	51,887	124,517	-17,635	-4,175	-10,818
Other physical	7,720	7,850	24,187	-1,230	585	11,853
Education	9,341	1,697	3,587	230	583	1,020
Miscellaneous	16,794	525	12,043	-16,794	24	-1,671
Total	138,918	64,710	167,911	43,414	-2,455	1,249
Net worth	1,125	196,443	1,402,328	26,870	-12,984	-258,237

Table 4. Household Balance Sheets by 2007 Net Worth Quintile (in 2009 Dollars)

<sup>a</sup> Liquid assets include those held in transaction (i.e., checking and savings) accounts.

	2009 Net Worth Quintile					
2007 Net Worth Quintile	0–20	20-40	40-60	60-80	80-100	Total
All						
0–20	15.6	3.6	.7	.1	.0	20.0
20-40	3.7	12.4	3.4	.5	.0	20.0
40-60	.5	3.6	13.0	2.9	.0	20.0
60-80	.2	.3	2.8	15.1	1.6	20.0
80-100	.0	.0	.0	1.6	18.4	20.0
Total	20.1	19.9	20.0	20.0	20.0	100
All owners						
0–20	20.0	1.2	.2	.0	.0	3.5
20-40	2.2	12.6	3.5	.4	.0	18.6
40-60	.4	4.4	16.5	3.4	.0	24.7
60-80	.2	.3	3.5	20.2	2.2	26.3
80-100	.0	.0	.1	.2	24.7	26.8
Total	4.8	18.6	23.8	25.9	26.9	100
All renters						
0–20	49.7	9.7	1.7	.2	.0	61.4
20-40	7.5	11.8	3.4	.7	.0	23.4
40-60	.9	1.5	4.2	1.5	.0	8.1
60-80	.1	.4	1.2	2.3	.2	4.1
80–100	.0	.0	.0	.5	2.5	3.0
Total	58.2	23.4	10.5	5.1	2.7	100

Table 5. Mobility for All, Owners, and Renters by 2009 Net Worth Quintile

Table 6. Comparing Owners with Renters

Indicator	Owners	Renters
Median 2007 net worth (in 2009 dollars)	382,890	15,560
Median net worth change 2007–2009 (nominal, 2009 dollars)	-33,780	0
Median net worth change 2007–2009 (percentage)	-11.3	-3.0
Percentage who lost net worth	60.4	49.0
Percentage who lost at least 10%	51.2	45.2
Percentage who lost at least 25%	36.2	40.3
Percentage who lost at least 50%	17.3	32.9