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**Surveying the Aftermath of the Storm: Changes in Family  
Finances from 2007 to 2009**

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**Surveying the Aftermath of the Storm:  
Changes in Family Finances from 2007 to 2009**

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Board of Governors of the Federal Reserve System

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The effects of the recent financial crisis and consequent recession on the household sector as a whole were often starkly apparent and readily measured. Although a great deal was known about some economic outcomes for certain subsets of households, a more complete picture for the full range of households was not available. To fill this gap, in 2009, the Federal Reserve Board (FRB) designed and implemented a follow-up survey of families that had participated in the then most recent wave of the Survey of Consumer Finances (SCF) in 2007, just as the economy started to turn down. Taken together, the information from the pairs of interviews from the two years provides a unique basis for measuring how families were affected.

This paper provides the first look at the changes in families' finances captured in the 2007–2009 SCF panel. The panel data allow us to examine how the effects of changes in the value of specific types of assets and debts and other economic disturbances played out at the household level. The data also allow us to consider the potential longer-term consequences of the financial crisis on families' decisions and expectations.

The broad contours of changes in households' assets, debts, and wealth align with changes in the corresponding aggregate measures, but the microdata from the panel highlight the substantial variation in families' experiences between 2007 and 2009. Although over 60 percent of families saw their wealth decline over the two-year period, a sizable fraction of households experienced gains in wealth, while some families' financial situation changed little, at least on net. The shifts in wealth do not appear to be correlated in a simple way with families' characteristics: instead, the pattern of mixed losses, gains, and modest shifts in wealth across families generally holds within groups defined by demographic characteristics or by 2007 wealth or income.

On the whole, changes in wealth appear to stem from changes in asset values more so than changes in the composition of families' portfolios or their outstanding debt, though, again, the results vary across households. As might be expected, changes in the values of homes, stock, and business equity appear to have been particularly important determinants of changes in many families' wealth. The economic experiences of families that might have been seen as financially vulnerable in 2007, by and large, did not differ dramatically from those of other families, except for families with high debt payments relative to income, who were more likely to have had comparatively large declines in wealth. Finally, at least overall, families appear more cautious in

2009 than two years earlier, as most families reported increased levels of desired buffer savings, and many expressed concern over future income and employment.

The first section of the paper provides an overview of macroeconomic changes over the 2007–2009 period and key technical aspects of the design and execution of the panel survey. The paper then examines in greater depth the changes in household wealth, shifts in portfolio composition, changes in wealth over selected demographic groups, the relationship between wealth changes and potential economic vulnerability, and a variety of measures that may point toward the future evolution of both the economy as a whole and the household sector in particular.<sup>1</sup>

## **I. Background**

### **I.a. Economic background**

The 2007–09 period covered by the SCF panel was a time of economic and financial turmoil that most families had never experienced. As the field period for 2007 SCF concluded in the beginning of 2008, the economic downturn was in its early stages. In the fourth quarter of 2007, the growth in real gross domestic product (GDP) was at an annual rate of nearly 3 percent, and the unemployment rate remained relatively low at 5 percent. However, house prices, as measured by the CoreLogic national index, fell about 9 percent during 2007, and the major stock market indices that peaked in October 2007 began to trend downward. Real GDP held about steady for the first half of 2008 but then fell at annual rates of 4.0 and 6.8 percent in the third and fourth quarters, respectively. Unemployment rose to 7.4 percent by the end of 2008, and over the course of the year, house prices declined 17 percent and the Wilshire 5000 index of publicly traded equities fell 39 percent.

In the first half of 2009, the economic contraction continued as real GDP declined, unemployment continued to rise, and housing and equity prices continued to fall. However, in the second half of 2009, some aspects of the economy started to improve, with strong growth in real GDP in the final quarter of 2009, sizeable gains in the equity market, and a slowing of the decline in house prices. Despite these positive signs, the labor market continued to struggle as

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<sup>1</sup> An appendix containing detailed results from the 2007-2009 SCF panel beyond those discussed directly in this paper is available on line at <http://www.federalreserve.gov/pubs/oss/oss2/2009p/scf2009p/home.html>.

the unemployment rate rose to 10 percent by the end of 2009. The 2009 re-interviews took place between July of 2009 and January of 2010, and despite the signs of the nascent recovery, the economic downturn was likely still very present for many families.

### **I.b. SCF 2007 cross-section and 2009 re-interview**

The SCF is normally conducted by the Federal Reserve Board (FRB) as a triennial cross-sectional survey, but there is an earlier history of the collection of panel data. The collection of wealth data at the FRB began with the 1962 Survey of Financial Characteristics of Consumers and the 1963 Survey of Changes in Financial Characteristics of Consumers, which re-interviewed the earlier survey participants. The current SCF series was started in 1983, and respondents to that survey were re-interviewed briefly in 1986 and more extensively in 1989. Until the re-interview in 2009 with the participants of the 2007 SCF, no further SCF panel interviews had been conducted.

#### *The 2007 and 2009 survey instruments*

Like the other waves of the triennial cross-sectional SCF surveys, the 2007 wave provided detailed information on all aspects of household finances, and most of this information was collected at the level of individual items. For example, the survey collected details for up to three mortgages (in addition to home-equity lines of credit) on a primary residence, with questions on all aspects of the mortgage terms and on various institutional details. The typical interview time was between 75 and 90 minutes, but the distribution of interview length was skewed, with interviews for some participants with complicated finances requiring up to four hours and sometimes several sessions.

The 2009 SCF follow-up interview focused on a smaller set of variables that were most useful for understanding the nature of the changes experienced by families during the financial crisis. To maximize comparability of data between the original and follow-up interviews, the 2009 questionnaire maintained as much as possible the ordering and systematic framing of concepts in the 2007 questionnaire. In the great majority of cases, the 2009 re-interview retained virtually identical text for the highest-level questions that determine the logical flow of the interview through each of the wealth categories. To reduce the response burden, less detail was typically collected on the components of wealth. In a few important instances—particularly mortgages on

primary residences and components of income—the survey retained the full detail of the 2007 survey.<sup>2</sup> As a consequence of the panel questionnaire design, it is possible to construct parallel estimates for all of the most important aspects of wealth in both 2007 and 2009. In addition, a few new questions were introduced, most notably a sequence targeting owners of small businesses and a series of questions on mortgage refinancing and modification. The 2009 re-interview also collected descriptive information about changes families made or planned to make in their portfolios and about key positive and negative events for the family between 2007 and 2009. The typical follow-up interview required about 45 to 60 minutes.

### *SCF sample design and unit of observation*

The SCF employs a dual-frame sample design, including a multi-stage area-probability (AP) sample and a list sample. The AP sample, which comprises roughly 60 percent of the total sample, provides broad national coverage and a sample of households selected with equal probability. The AP sample for 2007 was selected by NORC at the University of Chicago (see Tourangeau et al. [1993]). The list sample is selected from statistical records that are derived from individual income tax returns by the Statistics of Income (SOI) Division of the Internal Revenue Service. The list sample oversamples households that are predicted to be relatively wealthy based on a model of wealth estimated using variables available in the SOI data (see Kennickell and McManus [1993] and Kennickell [1998, 2001]). The two samples are combined to represent the population of households.

In 2007, the eligible respondent in a given household was the economically dominant single individual or the financially most knowledgeable member of the economically dominant couple.<sup>3</sup> Most of the questions in the interview of that sample were focused on the “primary economic unit” (PEU) a concept that includes the core individual or couple and any other people in the household (or away at school) who were financially interdependent with that person or couple.<sup>4</sup>

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<sup>2</sup> Because of the perceived sensitivity of the information in the survey, dependent interviewing (that is, the carrying over of information from the 2007 interview to frame the changes) was limited to two narrow sets of information: housing tenure and date the household moved into their residence, and ownership or partial ownership of a privately held business. This information was necessary to assess changes as accurately as possible for these key variables.

<sup>3</sup> Where no one was knowledgeable or where the respondent was too busy or disabled to be able to participate, it was possible to use a proxy for the respondent if the person would be able to answer the questions on behalf of the respondent. Usually, the proxy would be an accountant, a business manager, a legal guardian, or an adult child.

<sup>4</sup> We use the term “family” throughout this paper to mean the PEU.

Detailed information on employment and pensions was collected on only the respondent and, as relevant, that person's spouse or partner.<sup>5</sup>

For the 2009 follow-up survey, a concerted effort was made to track every 2007 household and to conduct an interview with the original respondent or an eligible alternate, as defined below. Even over the roughly two years between the 2007 and 2009 surveys, there were large changes in the structure of some households, so it is important to be clear about the relationship between the 2007 and 2009 households. For both the AP and list samples, the target household at the time of the 2009 survey was defined as follows:

1. If the 2007 respondent was alive and not living permanently outside the U.S, the target household in 2009 was the one that contained that person.
2. If (a) the 2007 respondent was either deceased or living permanently outside the U.S. and if (b) the 2007 respondent had a spouse or partner who was a part of the PEU as defined in the 2007 survey and who lived permanently in the U.S., the target household in 2009 was the one that contained the 2007 spouse or partner of the 2007 respondent.
3. Where (a) the 2007 respondent was either deceased or living permanently outside the U.S. in 2009 and (b) either (i) there was no spouse or partner who was a part of the 2007 primary economic unit or (ii) there was such a spouse or partner but that person was either deceased or living permanently outside the U.S., then the case was considered to be out of scope for the 2009 survey.

Note that each household interviewed in 2007 corresponds to at most one household in the panel. To maximize the comparability of answers in the two interviews, whenever possible the same person who was interviewed in 2007 was re-interviewed in 2009. When that person was not available and there was a financially knowledgeable spouse or partner of that person in an eligible 2009 household, that person was allowed to serve as the respondent in 2009.<sup>6</sup>

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<sup>5</sup> The SCF cross-sections include a highly summarized set of questions at the end of the interview to obtain rough information about the finances of people in the household that are not in the PEU. The panel questionnaire did not collect this information on anyone in the household outside the PEU.

<sup>6</sup> As in the 2007 cross section, a knowledgeable proxy was allowed to complete the interview on behalf of the respondent, if the respondent was disabled, too busy, or not knowledgeable about the finances of the household.

The FRB gave approval for the 2009 re-interview in April of 2009. The first interviews were conducted in July of that year, and nearly all interviews were completed before January 2010, when data collection stopped. When the field work ended, almost 89 percent of the eligible 2007 SCF participants had been re-interviewed, and the panel response rate based on the eligible cases was at least 87 percent in every sample group.<sup>7</sup> Analysis of nonresponse to the 2009 interview suggests that there is little relationship between response and the most important characteristics in the panel.

There was some change in the composition of the survey households over the 2007–2009 period. For example, in five percent of households there was a spouse or partner of the respondent in 2009 where there had been no such person in 2007, and in 4.7 percent of households there was no spouse or partner in 2009 where there had been such a person in 2007. Eliminating families with such large compositional changes from the analysis does not affect the qualitative findings reported in this paper.

#### *Data processing*

SCF data are carefully edited to incorporate information reported by the interviewer about problems in the data and to address inconsistencies in reporting. Although the data editing for the panel focused most directly on the 2009 data, the process was organized around comparisons of the 2007 and 2009 data for each case. Sometimes information in the panel was sufficient to cause a review of an original editing decision made for the 2007 data. Changes observed in panel data are virtually always subject to compounding of error from multiple measurements, but in general the inspection of the SCF data during the editing process suggests that there is a relatively high level of comparability between the two years. Missing data in the combined 2007–2009 data set were imputed using a multiple imputation routine developed for the SCF. Data originally missing in 2007 were re-imputed conditional on the 2009 data. Weights for the panel were constructed using a procedure comparable to that applied to generate the original 2007 cross-sectional weights. As noted above, the samples of eligible respondents for the original 2007 and 2009 panel differ slightly. Even allowing for this difference, estimates of 2007

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<sup>7</sup> See Kennickell [2010] for an analysis of nonresponse in the 2009 panel. The response rate relative to the full sample of households selected for the 2007 SCF was, of course, lower due to non-response in the 2007 survey.



characteristics may differ from previously published estimates as a consequence of additional editing, differences in imputation, or differences in weighting.

## **II. Wealth change and its decomposition**

This section describes key dimensions of wealth change for families from 2007 to 2009. We first look at the changes in the overall wealth distribution. Next we consider the changes in wealth for selected demographic groups and look at the role of housing, stocks and business equity, and debt in those changes. We then focus on families that experienced shocks or that might have been considered financially vulnerable. The final subsection presents behavioral and attitudinal shifts that we believe point to factors that may influence the path of families' finances and the economy.

We use the term “wealth” here to mean net worth, or total assets less total liabilities.<sup>8</sup> Assets include a main residence, other real estate holdings, net business equity, vehicles, trusts in which the family has an equity interest, annuities with a cash value, other financial assets, pension accounts that the family can withdraw from or take loans against, and miscellaneous assets. Defined-benefit pensions and other assets where there is no equity interest are not included here as assets. Liabilities include mortgages on primary and secondary residences, lines of credit, credit card debt, loans for vehicles, other installment loans, loans against pension accounts or life insurance, and all other types of personal debt. Debt held by a family's business or non-residential real estate is netted against the value of those assets.

### **II.a. Changes in the distribution of wealth**

The distribution of wealth for the population covered by the SCF panel shifted downward across the entire range from 2007 to 2009. Comparison of the cumulative distributions of wealth for 2007 and for 2009 given in Figure 1 shows a broad downward slide in the mass of the distribution. The mean (median) fell from \$595,000 (\$125,000) in 2007 to \$481,000 (\$96,000) in 2009. The quantile-difference plot given in Figure 2 breaks out the shifts across the full range of the wealth distribution. In dollar terms, there were substantial absolute increases in the level

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<sup>8</sup> See Bucks, Kennickell, Mach and Moore [2009] for a detailed discussion of the wealth measure used here. All dollar values reported are given in 2009 dollars.

of negative wealth at the bottom of the distributions, about no change just above the 10<sup>th</sup> percentile, and progressively larger decreases at the higher percentiles.

## **II.b. Changes in wealth within families**

The simple comparisons discussed above take the wealth distributions in the two years as independent. A key virtue of the panel data is that it is possible to look directly at the range of changes for all types of families.

In contrast to the declines in wealth at each percentile of the overall wealth distribution, changes in the wealth of individual families were more mixed. Table 1 uses five conventional percentile groupings of families by their wealth in 2007 and 2009 to summarize the joint distribution of wealth in the two years. As evidenced by the two-thirds of families along the main diagonal, the most common single outcome was relatively small or no change in a families' relative position in the distribution. This stability is, of course, in part a function of the coarse wealth categories used in the table; if the classifications are more granular, the level of stability is lower. For example, only 43 percent of families remain in the same category in both years if they are classified by deciles of wealth and only 26 percent if five-percentile-point groups are used (not shown).

A kernel density estimate of the level of changes for the panel members shows that the distribution has two major modes, with substantial fractions having either gains or losses. In addition, a noticeable share of families had very little change in their wealth (Figure 3). As a result, there was a substantial reshuffling of families across the wealth distribution. Most families (63 percent) experienced losses and the median percentage change was 18 percent of 2007 wealth (Table 2).<sup>9</sup> The median percentage decline in wealth for families whose wealth fell was 45 percent, and the median percentage gain for families whose wealth increased was 57 percent of 2007 wealth (not shown). Examination of the first and third quartiles (the 25<sup>th</sup> and 75<sup>th</sup> percentile points, respectively) illustrates just how diverse the experiences were for families

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<sup>9</sup> Percentage changes in wealth are calculated as the difference between 2009 wealth and 2007 wealth divided by the absolute value of 2007 wealth. For families with zero wealth in 2007, a value of one dollar is instead used in the denominator of the calculation. Percentage changes in the value of specific asset or debt are calculated analogously for families that have the asset or debt in either 2007 or 2009

within these two groups: wealth fell by over 50 percent for a quarter of families, but at the opposite extreme, wealth increased by about 27 percent or more for another quarter.

The wealth losses and gains were generally shared across demographic groups (Table 2).<sup>10</sup> The median percent change in wealth was similar—between 16 and 21 percent—across groups of families classified by 2007 income. There was greater variation in wealth changes for lower-income families, at least as measured by the interquartile range of percent changes in wealth.<sup>11</sup> The narrower range of wealth changes in percentage terms is also reflected in shares of households whose wealth fell between 2007 and 2009; roughly 60 percent of families in the first three income quintiles experienced a drop in wealth, but this fraction rises to 71 percent of families in the top decile of 2007 income.

The pattern is similar when families are arrayed by their 2007 wealth. The greatest dispersion in wealth changes was among the least-wealthy quarter of families in 2007, and the interquartile range generally narrows across the groups as 2007 wealth increases.<sup>12</sup> The experiences of families in the bottom quartile of 2007 wealth varied most widely, in part because nearness of the 2007 wealth to zero in many cases tends to amplify small nominal changes; the median change was roughly zero. By comparison, the median changes for other wealth groups were relatively similar.

Across the four Census regions, median wealth was highest in 2007 for families living in the northeast or in the west, and the variation in wealth within regions was also somewhat larger in those areas.<sup>13</sup> In percentage terms, losses tended to be greatest for families living in the west, a reflection in large part, of the relatively greater declines in real estate prices in that region.

When classified by the age of the household “head,” the variation of percent changes in wealth, as captured by the interquartile range, was greatest for the youngest group, which had the lowest

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<sup>10</sup> Appendix Table 1 additionally presents the value of median wealth in 2007, median wealth in 2009, and the median dollar change for all demographic groups considered in this paper.

<sup>11</sup> A persistent problem in analyzing lower-income families is that some part of the group is quite wealthy but has either realized substantial losses or otherwise has transitorily low income and another part of the group has wealth that is negative or close to zero.

<sup>12</sup> Part of the spread in percentage change for the least wealthy group is attributable to the fact that the 2007 base for measuring percentage change was quite small in dollar terms for many families.

<sup>13</sup> See Table 4 in Bucks, Kennickell, Mach, and Moore [2009].

median wealth (Table 3).<sup>14</sup> The youngest group also had the smallest median dollar change in wealth.<sup>15</sup> The largest median dollar losses were for families headed by persons in the four oldest age groups, which also have progressively greater median wealth. In dollar terms, the variation in wealth changes was greatest for the 55-to-64 group.

There are limitations to any common measure of change and, as illustrated by the discussion of wealth changes by age above, the choice of measure can alter conclusions regarding the relative magnitude of changes for different groups. As is apparent from comparing median wealth and wealth changes in dollars in the first four columns of Table 3, changes in dollar terms tend to follow the distribution of baseline 2007 wealth too closely to be separately informative. But percentage changes, shown in the next three columns, tend to show very large changes from low levels of baseline wealth as a consequence of quite small absolute changes or as a reflection of measurement error.

Much of the remainder of the paper classifies families by the difference in their percentile rank in the wealth distribution in each of the two years. The difference in percentile ranks is a measure of change that is more independent of the initial wealth level than the other measures discussed. As may be seen from the final three columns of Table 3, this measure shares some of the shortcomings of percentage changes, but the effects of these limitations tend to be more muted. The first shortcoming is that, due to the high degree of skewness in the wealth distribution, extremely large nominal changes at the top of the distribution can correspond to small shifts in terms of percentiles. Second, because the distribution of wealth is fairly flat around zero wealth, small nominal changes can imply substantial movements in terms of percentiles, but the effect is generally not as strong as for percentage changes.

It is important to emphasize that this measure of wealth change is a measure of relative change that may not correspond to changes in levels. By definition, the net change over all families under this measure is zero. When most families experienced wealth declines, as is the case in the

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<sup>14</sup> If a couple is economically dominant in the PEU, the head is the male in a mixed-sex couple or the older person in a same-sex couple. If a single person is economically dominant, that person is designated as the family head. This concept of household “head” is chosen only to provide a consistent arrangement of the data and it does not imply any judgment about actual economic relationships within a household.

<sup>15</sup> The median dollar change is simply the difference between 2009 wealth and 2007 wealth. The median dollar change for specific assets and debts is the difference in the 2009 and 2007 values for families that have the asset or debt in either 2007 or 2009.

SCF panel, even a household whose relative rank improved by this measure may have lost ground in dollar terms. For example, 18 percent of families whose rank in the wealth distribution improved by three to ten percentile points in fact had a decline in their wealth. Similarly, over 90 percent of families whose rank in the wealth distribution shifted only modestly—an absolute change of no more than three percentile points—experienced declines in wealth between 2007 and 2009 (Table 2).

Families that moved up the wealth distribution by three or more percentiles tended to have lower wealth than other families (Table 4). Almost 30 percent of families experienced absolute change of less than three percentile points. The fact that this group has the highest median and 75<sup>th</sup> percentile for wealth of any of the groups and a 25<sup>th</sup> percentile wealth level within the range of values for the other percentile-point-change groups suggests this middle group includes families located throughout the wealth distribution. Just less than a quarter of families moved up in the wealth distribution by between three and ten percentile points, and roughly 15 percent of families fell into each of the other three groups.

#### **II.d. Shifts in portfolio composition**

Underlying the changes in family wealth over the 2007–2009 period were shifts in the composition of assets and debts in families’ portfolios. Some of these portfolio shifts were the result of active decisions by families to restructure their balance sheets, but responses to direct questioning on general portfolio changes made during the period indicate that the majority of families passively accepted changes in portfolio shares driven by changes in asset prices.

We first introduce the changes in various types of financial assets, nonfinancial assets, and debt and effects of these shifts on households’ portfolios. To shed further light on the determinants of wealth changes among families in the 2009 SCF panel, we then focus in depth on three key portfolio components: home equity, and stock and business equity, and total debt. Unlike the first classification of portfolio components, home equity and equity in businesses combine assets and liabilities.

The median value of households’ holdings of financial and nonfinancial assets fell by 5 percent and 14 percent, respectively, over the 2007–2009 period, and the median amounts fell for most types of more finely classified assets (Table 5). As might be expected, stocks were among the

assets with the sharpest declines.<sup>16</sup> The median value of directly-held stock, for families with any, dropped from \$18,500 to \$12,000, and the median percent change was –31 percent.<sup>17</sup> The median value of pooled investment funds likewise fell sharply.<sup>18</sup> By contrast, ownership of bonds and of cash-value life insurance increased, and the median dollar change and percentage change for both types of assets were positive, although the median value of families’ holdings of both types of assets fell.

In line with these shifts, stocks and pooled investment funds accounted for a smaller fraction of total financial assets in 2009 than in 2007, whereas the aggregate share for bonds rose from 4.0 percent to 6.1 percent. The share of financial assets held in transaction accounts rose over the two-year period, likely owing to the relative stability of the value of these assets for most families (reflected in the comparatively small shifts in the median value, median dollar change, and median percent change). Certificates of deposit and retirement accounts also comprised a greater proportion of financial assets in 2009, a result due at least in part to increased ownership rates.

The largest percentage declines in the median values of nonfinancial assets in the SCF panel were for vehicles, primary residences, and non-residential real estate.<sup>19</sup> The largest median decline in dollar terms was for primary residences at \$18,700. But the median percentage change was –11.5 percent, a drop that was smaller than that for all other types of nonfinancial assets except for other residential real estate and roughly half or less of the declines in percentage terms for vehicles, businesses, and net equity in non-residential real estate. The median dollar and percent change in the value of residential real estate other than the primary residence were both negative, but the median value increased, as did the share of other residential real estate as a

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<sup>16</sup> Appendix Tables 2A and 2B detail the ownership rates and changes in holdings, respectively, of financial assets for all of the demographic groups considered in this paper.

<sup>17</sup> Directly held stock includes publicly traded corporate stock that is not held in a mutual funds, retirement account, or any type of managed account or trust. Unlike means, medians are not additive, so the change in the median is not necessarily the median change. The change in the median and median change may also diverge in Table 5 because these measures are calculated over different populations: the medians are calculated over only families that have a given asset or debt in each year, whereas the median changes are calculated over families that have the asset or debt in either 2007 or 2009.

<sup>18</sup> In this article, pooled investment funds exclude money market mutual funds and indirectly held mutual funds and include all other types of directly held pooled investment funds, such as traditional open-end and closed-end mutual funds, real estate investment trusts, and hedge funds.

<sup>19</sup> Appendix Tables 3A and 3B detail the ownership rates and changes in holdings, respectively, of nonfinancial assets for all of the demographic groups considered in this paper.

fraction of all nonfinancial assets. The total share of nonfinancial assets held in primary residences also rose. These increases were largely offset by the drops in the shares of businesses and, to a lesser extent, non-residential real estate.

Median total debt increased from \$70,300 to \$75,600, but the median dollar and percent changes were less than zero.<sup>20</sup> This pattern holds for many of the narrower categories of debts as well, including for the debt secured by residential real estate other than the primary residence, for which the median rose from \$98,400 to \$130,000. The pattern of increases in the conditional median and median changes that were negative may reflect declines in the ownership of most types of debts. The median percent changes in debt were comparable to those for financial assets, but smaller than most of the median percent changes for nonfinancial assets. On net, changes in families' debt holdings led to a 2.1 percentage point decline in the share of total debt that was secured by primary residences, a 0.5 percentage point increase in the fraction of debt owed on other residential real estate, and a 1.4 percentage point increase in the installment-debt share.

#### *Detailed changes in home equity, and stock and business equity*

Declines in the value of home equity and the value of stock and business equity were two important components of the overall declines in wealth.<sup>21</sup> The aggregate share of the primary residence as a fraction of total assets declined 1.5 percentage points, and the share of stock and business equity fell by nearly five percentage points (Table 6). The ratio of total debt to assets, the leverage ratio, rose by about 3 percentage points to nearly 18 percent over the period, primarily due to a decline in the value of assets rather than an increase in debt, as shown below. Mortgage debt as a share of total assets rose 1.9 percentage points (not shown).

Housing is a key part of the portfolio for many families. Among the least-wealthy quarter of families, the homeownership rate is less than 20 percent, but it rises to nearly 100 percent among the wealthiest.<sup>22</sup> Declines in home equity were an important driver of decreases in wealth.

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<sup>20</sup> Appendix Tables 4A and 4B detail the ownership rates and changes in holdings, respectively, of financial assets for all of the demographic groups considered in this paper.

<sup>21</sup> The definition of business equity also includes the net value of non-residential real estate.

<sup>22</sup> The ownership rate for home equity shown in Table 6 treats all homeowners as having home equity, including those with zero or negative equity, so that the homeownership rate is identical to the share of families with home equity. The 2009 SCF panel indicates that homeownership increased slightly between 2007 and 2009. This is in

Among families that moved down the wealth distribution by more than ten percentile points, the value of home equity as a share of 2007 assets declined by about 13 percentage points at the median; among families who moved down three to ten percentile points the median decline in the share was 6 percentage points (Table 7). The median share was little changed for the remaining groups. The change in the share showed the most variation among the groups of families with the largest increases or decreases in their percentile rank, which were also the groups with the largest changes in homeownership rates, shown in Table 6.<sup>23</sup>

Stock and business equity are less widely held among families than are houses, but they account for roughly 40 percent of families' assets overall (Table 5). Ownership of stocks and business equity rises with wealth, but does so more gradually across 2007 wealth groups than homeownership (Table 6). Measured as a share of 2007 assets, the value of stock and business equity increased for families with below-median wealth in 2007 and declined for families in the top wealth quintile in 2007 (not shown).

These changes in holdings of stock or business equity from 2007 to 2009 appear to explain some of the observed wealth shifts over that time, particularly for families with the largest increases or decreases in their rank in the wealth distribution. The share of families with stock or business equity increased among families that moved up the wealth distribution by three or more percentiles, and the share declined for families that moved down the distribution by 10 or more percentiles (Table 6). Although there was little change in the median of families' holdings of these assets as a ratio of their total 2007 assets, the interquartile ranges across the wealth-change groups indicate that, for those families that did experience a change, the share of total assets fell for families that moved down the wealth distribution and increased for families that moved up the wealth distribution (Table 7). A comparison of the quartiles in the table suggests that, on the whole, changes in home equity likely played a greater role in the evolution of families' wealth between 2007 and 2009 than did changes in business and equity.

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contrast to cross-sectional Census data on homeownership that show a decline over the same period. The modest difference is likely attributable to aging or cohort effects in the panel.

<sup>23</sup> The homeownership rate declined from 78 percent to 72 percent for families in the bottom percentile-change group, and the rate rose from 53 percent to 63 percent for families whose rank in the wealth distribution improved by at least 10 percentile points. In contrast, the changes in the homeownership rate for the other percentile-change groups ranged from negative two percent to three percent.



### *Detailed changes in total debt*

Debt is an important element of the portfolios of many families, particularly in purchasing capital assets. Indeed, in 2007 nearly 80 percent of families held some kind of debt (Table 5). Mortgage debt is by far the largest component of family debt—nearly three-quarters of the total reported in the SCF in 2007.<sup>24</sup> Installment loans and debt on residential real estate other than the primary residence each make up about one tenth of total debt, and most of the remaining debt—three to four percent of all debt in recent SCF surveys—is owed on credit cards. These proportions changed little between the two waves of the SCF panel.

Across the wealth-change categories, families that moved down the wealth distribution from 2007 to 2009 by more than three percentile points tended to become more highly leveraged over this period (Table 8). The median leverage ratio for families who moved down by more than ten percentile points rose nearly 30 percentage points. For families who moved up by ten or more percentile points, the median decrease was more than 15 percentage points, a drop that is due in part to the nearly eight percentage point decline in the fraction of these families that had any debt (Table 6). However, when debt is viewed relative to 2007 assets, the changes across the change groups tend to cluster more closely around zero, suggesting that it is variation in asset values rather than debt values that is the dominant factor (Table 8).

Figure 4 reinforces the conclusion that changes in asset values likely play a key role in explaining shifts in families' wealth over the 2007–09 period. Families who moved up by three or more percentile points in the wealth distribution had a positive change in assets relative to their 2007 wealth, whereas families who either stayed in place or moved down saw a negative change in assets relative to their 2007 wealth. In contrast, the median change in debt relative to 2007 wealth was zero for each group, though the interquartile ranges suggest that families who moved up were more likely to have had a decrease in debt and families that moved down were more likely to have had an increase in debt.

To complete the picture of shifts in households' portfolios between 2007 and 2009, Figure 5 presents the portfolio shares for mortgage debt and non-mortgage debt separately as well as the

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<sup>24</sup> See Bucks, Kennickell, Mach and Moore [2009], Table 11.

share of assets other than net home equity and holdings of businesses and stock equity.<sup>25</sup> Non-mortgage debt is shown as a negative fraction of assets; to ease interpretation of home equity, mortgage debt is shown overlaid on the share of principal residences.<sup>26</sup>

The overall portfolio share of homes increased for both groups that moved down the wealth distribution by more than three percentile points, but the increase was more than offset by a larger rise in the share of mortgage debt. The share of business and equity holdings also declined for these groups, the share of other assets was slightly lower, and the share of non-mortgage debt increased. For families that moved up the distribution by three or more percentile points, the shares of homes and mortgage debt both declined, but the share of principal residences declined more, resulting in a decline in the share of home equity. The shares of businesses and equity and of other assets rose, while the share of other debt fell. Families that roughly maintained their place in the wealth distribution saw little change in their portfolio shares.

### **II.e. Changes in income**

Real median household income declined slightly, from \$50,100 to \$49,800 for families surveyed in the 2007 SCF panel, and the median dollar and percent changes likewise indicate little change, at least in the aggregate, in households' income over the period (Table 9). On the whole, events of the 2007–09 period tended to have an equalizing effect on income, although most of the changes in income were relatively modest. All the measures of income change presented here suggest that income increased for families with income below the 2007 median and income fell for families with income near or above the 2007 median. The dollar and percent change measures both decline steadily across the income groups.

Across groups of families classified by 2007 wealth, income changes were again modest but strictly decreasing across the groups. The median percent income change, for instance, ranged from five percent for families in the bottom wealth quartile in 2007 to –13 percent for families that were in the top decile of 2007 wealth. This pattern reflects relatively large declines in capital gains income and in business, farm, or self-employment income, both of which account for a larger share of income for higher-wealth households (Table 10). In general, the Census

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<sup>25</sup> In the figure, “other assets” includes residential real estate other than a principal residence, financial assets, pension accounts, vehicles and miscellaneous assets.

<sup>26</sup> Thus, the portfolio share of principal residences is given by the sum of home equity and mortgage debt.

regions and age groups with the lowest median incomes in 2007 tended to experience increases in median income as well as positive median dollar and percent changes. Perhaps the most notable exception is for households headed by a person older than 74—the set of families with the lowest median 2007 income—who experienced declines in all of the income measures. Generally speaking, changes in income move with the changes in wealth. Both the median dollar change and median percent change in income increase with increases in the wealth change groups (Table 9).

## **II.f. Shock, vulnerability and wealth change**

In this section, we narrow our attention to families that might have been considered financially vulnerable in 2007 or who faced an unemployment spell. These are groups that might be considered likely to have experienced deterioration in their financial condition over the period covered by the panel.

Families that suffer a job loss may, in response, draw down their savings or increase their borrowing; in one extreme, the consequences of an unemployment spell could include mortgage default and foreclosure. Both the 2007 and 2009 waves of the SCF panel contain information on the current employment status of the household head and that person's spouse/partner (if applicable) as well as data on any other spells of unemployment in the 12 months prior to the interview.

In general, the relationship between unemployment spells and shifts of families within the wealth distribution appears weak. Two points stand out. First, families where the head or the spouse or partner of that person was unemployed in 2007 but not in 2009 were the most likely to move up the wealth distribution by ten or more percentile points (Table 11). It may be that returning to employment allowed these families to rebuild their assets. Second, families that did not have an unemployment spell in either year were the most likely of any group to have only small changes in their relative wealth position.

We also consider three sets of families that showed signs of having high debt burdens in 2007. The first group comprises families whose ratio of total debt payments in 2007 to their total income (PIR) exceeded 40 percent of their prior year's income (about 11 percent of all families). The second set is families that had high debt relative to assets, namely a leverage ratio greater

than 75 percent (about 16 percent of all families). The final group includes families that had missed a debt payment by 60 days or more in the year prior to the 2007 SCF interview (about six percent of all families).<sup>27</sup>

The clearest correlation between these measures of financial vulnerability in 2007 and subsequent wealth changes is for the group with a PIR of 40 percent or more. Families with regular debt payments greater than 40 percent of income were more than twice as likely as other families to have moved down the wealth distribution by more than ten percentile points. This relationship may indicate a greater rate of dissaving among the group, or the loss of a leveraged asset with positive net value in 2007. In contrast, families with a comparatively high leverage ratio in 2007 were disproportionately represented in the group of families that moved up within the wealth distribution by at least ten percentile points; thus, it appears that some of these families may have made a successful leveraged bet.<sup>28</sup> Families that reported having missed a debt payment in the 2007 SCF were slightly more likely than families as a whole to have fallen in the wealth distribution by more than ten percentile points, but they are even more likely than others to have moved up, especially by at least ten percentile points.

## **II.g. Attitudes, expectations and wealth change**

The potential longer-term economic consequences of the most recent recession depend, in part, on the extent to which the downturn and financial crisis led to changes in families' expectations and behavior. The two waves of the SCF panel provide direct evidence on several of these factors: changes in families' savings intentions or behavior, their tolerance for financial risk, and their retirement planning. The 2009 survey collected a variety of attitudinal data on the economic downturn and on how families had changed or intended to change their financial decisions as a consequence. Overall, the data suggest a shift toward caution: most families—especially those whose position in the wealth distribution improved—reported a desire for less risk and for higher reserve savings. Further, in most cases, heads of households that were working full-time planned on extending their working lives.

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<sup>27</sup> Roughly six percent of all families met two of these criteria, while only about one percent met all three.

<sup>28</sup> This group might also include families whose principal residence had a mortgage that exceeded its value in 2007 and who had lost that home by 2009; however, the data show that this situation is a negligible element in the observed outcomes.

The SCF asks families the savings they need for emergencies and other contingencies—a measure of desired savings for precautionary purposes.<sup>29</sup> Families’ desired level of precautionary savings tends to increase over wealth groups.<sup>30</sup> Most families in each of the relative wealth change categories reported greater desired precautionary savings in 2009 than they had in 2007 (Table 11), as might be expected if families generally believed they were exposed to a higher level of risk than they were previously. Some families reported much higher preferred buffer savings: nearly 30 percent of families who moved up by three or more percentile points and nearly a quarter of all other families reported desired precautionary savings that were at least 200 percent higher in 2009 than in 2007. Nonetheless, a substantial minority of families reported either no change or a decrease in their precautionary savings in 2009.

An analysis of families’ reported willingness to take financial risk in investing and saving suggests that the recession and other economic developments may have led families to become somewhat more cautious. Across the array of relative wealth changes, except for families in the highest percentile-change group, more families were unwilling to take any financial risk in 2009 (Table 12). The increases in this proportion were roughly five to six percent for families whose rank rose or fell by no more than ten percentile points, but the shift in the proportion of families unwilling to take risk was twice as large for families that moved down the wealth distribution by more than ten percentile points.

Working families that experienced negative wealth shocks from 2007 to 2009 might be expected to plan to work longer to recoup savings for retirement, and others might plan to work longer to hedge against future uncertainties. For families headed by a full-time worker aged 63 or younger in 2007 who was still working full-time in 2009, the median change in the worker’s anticipated retirement age was zero across all wealth change groups (Table 12).<sup>31</sup> But those workers who did shift their anticipated retirement date tended to report that they would stop working full-time at a date later than what they had reported in 2007. At least 25 percent of full-time household heads reported postponing retirement by two years. Not surprisingly, the largest fraction of

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<sup>29</sup> See Kennickell and Lusardi [2004] for an analysis of the SCF measure of desired precautionary savings.

<sup>30</sup> See Bucks, Kennickell, Mach and Moore [2009], Table 3.1.

<sup>31</sup> Table 9 shows the difference in the reported ages at which household heads reportedly planned to stop working full-time as reported in the 2007 and 2009 surveys. These differences are calculated only for those heads who worked full time in 2007 and 2009, who were in the household in both survey years, and who were younger than 63 at the time of the 2007 interview.

household heads who plan to stop working two years *earlier* than planned in 2007 are the heads of households who moved up the wealth distribution by ten or more percentile points .

Generally, existing empirical estimates of the wealth effect in macroeconomic analysis have suggested that in the aggregate responses to upturns and downturns are symmetrical. The SCF offers some evidence on how individual families respond to wealth changes. For a number of surveys, the SCF has included a question asking respondents whether (and to what extent) they agreed or disagreed that they would increase their spending if the value of their assets rose; the history of the question suggests that the overall response patterns are stable. For the 2009 panel interview, a new question was added using parallel language to ask about whether the family would decrease their spending if the value of their assets declined. When families are classified by their wealth changes from 2007 to 2009, the proportion agreeing with these two questions is fairly flat. However, the proportion agreeing that they would spend more if their assets rose is markedly lower than the fraction agreeing they would spend less if their assets declined in value (Figure 6). This outcome suggests that spending responses to wealth changes may be less symmetrical than has been apparent in aggregate data.

#### **II.h. Future expectations and between-survey events**

SCF respondents in 2007 and 2009 were asked about their expectations for the state of the economy over the next five years relative to the last five years—specifically, if they expected the economy would be worse, better, or about the same. In addition, in 2009 the respondents were also asked whether they thought the economy next year would be “better than now.” Across the wealth-change groups, the most striking result is the greater optimism for all groups in 2009 in the five-year economic outlook (Figure 7). Because the overall economic situation at the time of the 2009 interview was substantially worse than at the time of the 2007 interview, this result might be taken to reflect a tendency to believe in mean reversion. The outlook over the year following the second interview is less optimistic, and it is similar to the five-year outlook from 2007.

In addition to these questions about the economic outlook, at the conclusion of the 2009 panel interview, respondents were asked open-ended questions about their experiences over the preceding two years, their reactions to those experiences, and their plans looking forward. We

examine several of these questions in turn, classifying the distributions of responses by the changes in wealth the families experienced.

In all the wealth-change groups, most families found at least something positive in their experience, and the most common response was an answer that indicated a recognition that the workers in the family had managed to keep or get a job or that their income had somehow otherwise been maintained at an adequate level (Table 13).<sup>32</sup> Nonetheless, substantial fractions of families reported that there had been no positive events, and unsurprisingly the group most likely to report this answer was the one that had moved furthest down the wealth distribution.

As might also be expected, far fewer families reported that there were no negative events. Families' characterizations of negative events that had affected their finances varied more. Though a substantial fraction of families reported negative income- or job-related events, a nearly equivalent-sized group reported a range of outcomes classified as "other," a category which includes various reactions to political events near the time of the survey, the international situation, family problems, and a broad miscellany of other answers.

Finally, the most common concern among families' future financial challenges was maintaining income or employment. Portfolio management was also a key challenge for the groups with the largest positive or negative changes in their relative wealth position.

### **III. Conclusions**

From 2007 to 2009, wealth declined for most families across the initial 2007 wealth spectrum, and it declined very substantially for some. Yet many families saw only small changes and a non-negligible group of families saw substantial increases in their wealth. This diversity of outcomes is pervasive in the data. For that reason, in this paper we use distributions to describe as clearly as possible the central tendencies and dispersions of outcomes or changes.

By definition, changes in families' portfolios underlay the observed wealth shifts, but it is sometimes not directly obvious from the data whether the changes were driven by portfolio rebalancing or by revaluation of portfolio items. Responses to direct questioning on general

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<sup>32</sup> Although some respondents provided more than one answer in their open-ended response, in this and the remaining figures we have included only the answer the respondent deemed most important. Including all the answers in the analysis does not qualitatively change these results, but it would complicate the interpretation, since the sum of the shares of each answer category would exceed 100 percent.

portfolio changes made during the interval between the 2007 SCF and the 2009 panel interview indicate that the large majority of families passively accepted changes in portfolio shares driven by changes in asset prices. Unemployment spells are also associated with wealth declines, whether because of the necessity of dissaving or because cumulated late payments might have caused the loss of an asset, such as a home, through foreclosure. Although continued saving might also account for some marginal differences, it appears that the major shifts were driven by revaluation of assets. As expected, changes in the values of principal residences and of stock and businesses equity appear to have played a substantial part in explaining the observed changes in wealth. Shifts in leverage that took place over the period are largely explained by the general decline in the value of assets.

The data show signs that families' behavior may act in some ways as a brake on reviving the economy in the short run. Two things stand out in this regard. First, a large proportion of families in all wealth groups and across the range of changes in wealth expressed the need for greater precautionary savings. In general, compared with families with relative losses, the families with relative gains appeared more pessimistic and cautious before the crisis, and in the 2009 survey they remained cautious even though their wealth had increased. The perceived desire for additional savings is further amplified by answers to open-ended questions about recent and future adjustments to family finances. Second, the data show a tendency for families to respond asymmetrically to changes in wealth. Overall, it appears that families may be relatively reluctant to spend more when asset prices rise and may more readily reduce spending when asset prices fall. This paper has provided only a basic outline of the results from 2007–2009 SCF panel data. Subsequent research will explore more detailed behavioral responses and consider more deeply the implications of the data for the future.



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**Table 1. Joint distribution of 2007 and 2009 wealth**

Percentile of 2007 wealth	Percentile of 2009 wealth				
	Less than 25	25 – 49.9	50 – 74.9	75 – 89.9	90 – 100
Less than 25	19.6	5.4	0.7	0.1	0.0
25 – 49.9	4.8	15.0	4.8	0.2	0.0
50 – 74.9	1.1	4.1	15.2	4.0	0.2
75 – 89.9	0.2	0.3	3.6	8.9	1.8
90 – 100	0.0	0.1	0.4	1.7	7.9

**Table 2. Changes in family wealth between 2007 and 2009 and share of families with wealth declines, by selected characteristics of families**

Family characteristic	Percent change (Percent)			Share with decline in wealth (Percent)
	Median	25th percentile	75 <sup>th</sup> percentile	
All families	-18.1	-56.9	26.9	62.5
<i>Percentile of income (2007)</i>				
Less than 20	-18.3	-67.6	39.7	60.7
20-39.9	-15.7	-62.8	41.3	57.8
40-59.9	-20.6	-63.7	33.7	60.9
60-79.9	-18.5	-51.5	19.9	64.8
80-89.9	-18.5	-46.5	16.9	66.1
90-100	-18.2	-44.2	3.4	71.1
<i>Percentile of wealth (2007)</i>				
Less than 25	0.0	-98.8	161.0	49.3
25 – 49.9	-18.1	-66.6	32.7	59.8
50 – 74.9	-17.2	-46.9	12.4	66.5
75 – 89.9	-21.6	-43.5	1.3	74.0
90 – 100	-23.8	-46.7	-2.2	76.9
<i>Region (2007)</i>				
Northeast	-9.5	-45.7	26.7	58.7
North Central	-17.5	-54.8	27.7	62.7
South	-17.7	-58.1	32.7	61.5
West	-27.7	-62.6	16.1	67.5
<i>Age of head (2007)</i>				
Less than 35	-25.5	-86.9	69.1	59.5
35 – 44	-19.5	-64.3	37.0	58.7
45 – 54	-19.6	-51.1	16.8	67.0
55 – 64	-15.2	-46.6	20.5	61.8
65 – 74	-13.9	-38.8	16.5	62.7
75 or more	-20.4	-43.5	11.9	68.7
<i>Change in wealth percentile (2007–09)</i>				
Less than -10	-86.8	-115.9	-67.5	100.0
-10 – -3.1	-48.2	-70.9	-38.6	100.0
-3 – 2.9	-22.4	-40.3	-12.8	92.7
3 – 9.9	15.9	1.6	38.3	18.0
10 or more	160.1	86.3	417.5	0.0

**Table 3. Change in wealth by 2007 wealth percentile and age of household head**

Thousands of 2009 dollars unless specified

Family characteristic	Median 2007 wealth	Dollar change			Percent change (Percent)			Change in wealth percentile (Percentage points)		
		Median	25th	75 <sup>th</sup>	Median	25th	75 <sup>th</sup>	Median	25th	75 <sup>th</sup>
<i>Percentile of wealth (2007)</i>										
Less than 25	1.7	0.0	-6.6	8.5	0.0	-98.8	161.0	4.0	-0.4	10.6
25 – 49.9	61.3	-10.7	-36.3	18.1	-18.1	-66.6	32.7	1.4	-7.3	8.1
50 – 74.9	237.5	-40.1	-108.3	27.7	-17.2	-46.9	12.4	0.6	-8.1	6.6
75 – 89.9	616.0	-134.1	-261.8	7.7	-21.6	-43.5	1.3	-0.8	-6.6	3.2
90 – 100	2039.2	-449.3	-1216.2	-36.4	-23.8	-46.7	-2.2	-0.3	-2.4	0.5
<i>Age of head (2007)</i>										
Less than 35	14.2	-4.9	-34.3	9.5	-25.5	-86.9	69.1	1.5	-5.4	8.3
35 – 44	97.1	-6.8	-91.1	17.4	-19.5	-64.3	37.0	1.0	-7.6	7.1
45 – 54	203.0	-23.9	-134.3	10.7	-19.6	-51.1	16.8	0.4	-6.0	5.4
55 – 64	257.7	-13.7	-154.3	29.3	-15.2	-46.6	20.5	0.9	-3.7	5.9
65 – 74	232.7	-18.2	-118.0	16.2	-13.9	-38.8	16.5	0.9	-2.0	5.7
75 or more	228.9	-20.5	-123.2	13.8	-20.4	-43.5	11.9	0.3	-4.6	5.3

**Table 4. Wealth percentiles and share of families by change in wealth percentile**

Percentile point change in 2007–09 in wealth	Percentiles of wealth (Thous. of 2009 dollars)			Share of families (Percent)
	Median	25 <sup>th</sup>	75 <sup>th</sup>	
Less than -10	168.0	58.7	349.2	15.7
-10 – -3.1	191.9	38.2	478.2	15.0
-3 – 2.9	248.2	27.8	941.4	29.8
3 – 9.9	73.9	5.1	284.2	23.2
10 or more	30.8	1.4	146.8	16.3

**Table 5. Family holdings of financial assets, nonfinancial assets, and debt, changes in holdings, and shares by asset or debt category**

Type of asset or debt	Percent of families with any (percent)		Median (Thous. of 2009 dollars)		Median change		Share of broad asset category or debt (percent)	
	2007	2009	2007	2009	Dollar	Percent	2007	2009
<i>Total financial assets</i>	94.3	94.6	31.3	29.6	-0.3	-5.2	100	100
Transaction accounts	92.6	92.3	4.1	4.0	0.0	-0.7	9.9	12.7
Certificates of deposit	15.4	15.9	20.7	20.0	-0.2	-3.4	3.6	5.0
Savings bonds	15.4	14.1	1.0	1.0	-0.1	-3.4	0.4	0.5
Bonds	1.7	2.6	62.1	50.0	5.0	128.0	4.0	6.1
Stocks	18.4	18.5	18.5	12.0	-0.8	-22.7	18.1	13.6
Pooled investment funds (excl. money market funds)	11.5	10.8	58.7	47.0	-7.4	-35.6	15.1	11.7
Retirement accounts	55.6	56.2	50.6	48.0	-0.3	-3.4	37.7	38.2
Cash value life insurance	23.2	24.3	8.3	7.3	0.1	4.5	3.1	3.1
Other managed assets	5.6	5.7	62.1	60.0	-1.6	-9.5	5.8	6.7
Other	9.3	10.3	5.8	4.5	0.0	-0.9	2.2	2.4
<i>Total nonfinancial assets</i>	92.7	92.6	183.8	162.5	-10.9	-14.1	100	100
Vehicles	87.9	86.8	16.2	12.0	-2.9	-25.7	4.4	4.6
Primary residence	68.9	70.3	207.1	176.0	-18.7	-11.5	47.6	48.5
Other residential property	13.9	13.0	141.7	150.0	-6.8	-9.9	10.3	11.6
Equity in nonresidential property	8.3	7.6	78.8	69.0	-6.2	-22.7	6.2	5.7
Business equity	12.4	11.9	103.6	94.5	-5.2	-23.9	30.2	27.9
Other	7.4	9.2	15.5	15.0	1.5	56.9	1.3	1.7
<i>Total debt</i>	79.7	77.5	70.3	75.6	-1.2	-3.7	100	100
Secured by residential property								
Primary residence	50.3	49.4	112.0	112.0	-6.6	-6.3	75.0	72.9
Other	5.7	5.1	98.4	130.0	-6.2	-11.5	9.5	10.0
Installment loans	48.6	49.5	12.8	14.7	0.0	0.0	10.3	11.7
Lines of credit not secured by residential property	1.8	3.1	4.3	5.0	1.3	104.6	0.5	0.8
Credit card balances	47.8	43.2	3.1	3.3	-0.1	-3.4	3.5	3.5
Other	7.4	6.7	5.2	4.0	-0.4	-20.7	1.2	1.1

**Table 6. Ownership of selected assets and of debt, all families and by 2007 wealth and 2007–09 change in wealth percentile**

Family characteristic	2007 Percent of families with any (percent)			2007–09 change (percentage points)		
	Home equity*	Businesses and equity	Debt	Home equity	Businesses and equity	Debt
All families	68.9	58.7	79.7	1.4	1.9	-2.2
<i>Percentile of wealth (2007)</i>						
Less than 25	15.5	20.5	72.8	5.5	5.3	-3.3
25 – 49.9	73.8	51.7	84.8	2.0	4.4	3.4
50 – 74.9	93.0	69.8	82.1	-2.2	0.8	-3.3
75 – 89.9	95.4	92.7	80.3	0.3	-3.9	-4.2
90 – 100	96.8	97.9	77.7	-0.2	-2.2	-7.5
<i>Change in wealth percentile (2007–09)</i>						
Less than -10	78.3	64.1	88.7	-6.1	-7.7	0.6
-10 – -3.1	76.6	65.9	80.1	-2.1	-0.9	0.3
-3 – 2.9	74.5	63.5	76.2	1.4	0.2	-1.0
3 – 9.9	61.6	50.6	72.5	2.7	3.8	-3.4
10 or more	53.0	49.8	87.0	10.2	14.1	-7.7
MEMO						
Aggregate value as a share of assets	19.8	41.4	14.7	-1.5	-4.7	3.1

\* Ownership of home equity is identical to homeownership.

**Table 7. Changes in home equity and businesses and equity as a share of 2007 assets, by changes in wealth percentile**

Change in wealth percentile	Percentage points					
	Change in home equity as a share of 2007 assets			Change in businesses and equity as a share of 2007 assets		
	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
Less than -10	-13.1	-30.4	0.0	-0.4	-15.8	0.0
-10 – -3.1	-6.0	-19.3	0.0	0.0	-12.2	0.0
-3 – 2.9	-1.6	-9.3	0.0	0.0	-8.5	0.0
3 – 9.9	0.0	-2.2	2.9	0.0	0.0	5.0
10 or more	0.0	0.0	20.2	0.3	0.0	31.3

**Table 8. Changes in leverage ratio and in debt as a share of 2007 assets, by change in wealth percentile**

Percentage points

Change in wealth percentile	Change in leverage ratio			Change in debt as share of 2007 assets		
	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
Less than -10	29.7	13.8	59.9	0.2	-4.6	10.7
-10 – -3.1	10.6	0.3	22.6	0.0	-2.2	7.6
-3 – 2.9	0.5	-0.4	7.8	0.0	-3.0	4.0
3 – 9.9	-1.2	-8.2	0.0	0.0	-8.5	0.8
10 or more	-16.0	-47.3	-2.0	-3.1	-28.5	6.0

**Table 9. Changes in income between 2007 and 2009, by selected characteristics of families**

Family characteristic	Median (Thous. of 2009 dollars)		Median change	
	2007	2009	Dollar	Percent
All families	50.1	49.8	0.1	0.2
<i>Percentile of income (2007)</i>				
Less than 20	13.6	16.8	2.2	18.5
20-39.9	31.2	32.2	0.9	3.0
40-59.9	50.3	49.8	-0.5	-0.9
60-79.9	79.1	76.0	-2.6	-3.5
80-89.9	119.3	114.2	-4.3	-3.7
90-100	216.8	187.3	-32.7	-14.4
<i>Percentile of wealth (2007)</i>				
Less than 25	27.2	27.3	1.3	5.3
25 – 49.9	43.3	42.8	0.6	2.0
50 – 74.9	60.0	58.8	0.1	0.2
75 – 89.9	86.3	81.9	-1.4	-2.2
90 – 100	168.2	141.5	-18.4	-13.1
<i>Region (2007)</i>				
Northeast	53.7	51.2	-0.1	-0.2
North Central	46.9	47.8	0.7	1.9
South	45.6	47.5	0.0	0.0
West	56.0	54.0	-0.4	-0.9
<i>Age of head (2007)</i>				
Less than 35	39.4	42.8	3.1	7.7
35 – 44	59.9	60.8	0.2	0.5
45 – 54	67.1	64.8	0.0	-0.2
55 – 64	56.4	54.8	-1.0	-2.5
65 – 74	40.4	41.0	-1.3	-3.5
75 or more	25.6	24.5	-0.3	-1.2
<i>Change in wealth percentile (2007–09)</i>				
Less than -10	56.4	49.8	-1.8	-4.3
-10 – -3.1	53.2	49.8	-0.8	-1.8
-3 – 2.9	58.6	54.8	-0.7	-1.8
3 – 9.9	38.8	40.6	0.8	2.3
10 or more	45.9	51.8	4.0	10.1



**Table 10. Changes in before-tax family income shares distributed by type of income, 2007–2009 panel**

Income Source	Percentile of wealth					All families
	Less than 25	25–49.9	50–74.9	75–89.9	90–100	
<i>2007</i>						
Wages	79.2	80.1	82.2	73.6	42.3	63.6
Interest or dividends	0.0	0.2	0.6	1.9	7.8	3.7
Business, farm, self-employment	1.9	5.6	7.9	8.4	28.2	15.6
Capital gains	0.1	0.2	-5.3	2.2	14.8	5.6
Social Security or retirement	9.9	10.9	13.0	13.0	6.1	9.5
Transfers or other	9.0	2.9	1.6	1.0	0.7	2.0
Total	100	100	100	100	100	100
<i>2009</i>						
Wages	79.0	79.2	75.8	73.8	56.2	70.5
Interest or dividends	0.0	0.8	0.8	2.2	12.2	4.4
Business, farm, self-employment	1.8	4.8	6.8	5.4	21.2	9.9
Capital gains	0.0	0.2	-0.1	-0.2	-1.6	-0.5
Social Security or retirement	9.3	11.4	14.3	15.5	10.6	12.3
Transfers or other	9.9	3.6	2.4	3.3	1.3	3.3
Total	100	100	100	100	100	100

**Table 11. Changes in wealth percentile by unemployment, payment-to-income, leverage, and late debt payments**

Family characteristic	Unemployment				High debt burden		
	Both 2007 and 2009	2007 but not 2009	2009 but not 2007	Neither 2007 nor 2009	Leverage > 75	PIR > 40	Late 60 days
All families	7.4	7.7	13.9	71.0	16.1	11.5	5.9
<i>Change in wealth percentile (2007–09)</i>							
Less than -10	7.9	8.4	18.1	65.6	15.3	24.5	7.1
-10 – -3.1	7.0	6.6	17.0	69.4	9.3	11.2	4.0
-3 – 2.9	6.4	7.1	12.6	73.9	11.5	7.9	4.1
3 – 9.9	8.4	7.5	12.4	71.6	13.5	8.8	6.3
10 or more	7.7	9.4	11.7	71.2	35.4	9.8	9.1

**Table 12. Changes in desired precautionary savings level, expected retirement, and attitude toward financial risk**

Change in wealth percentile	Percentiles of change in desired precautionary savings (percent)			Unwilling to take financial risk (percent)		Change in age at which stop full-time work* (years)		
	Median	25 <sup>th</sup>	75 <sup>th</sup>	2007 level	2007–09 change	Median	25th	75 <sup>th</sup>
Less than -10	24.4	-29.7	189.7	40.8	11.8	0	0	5
-10 – -3.1	18.6	-45.5	189.7	38.1	5.7	0	-1	4
-3 – 2.9	28.8	-35.6	189.7	35.2	4.9	0	0	3
3 – 9.9	54.5	-21.9	262.1	45.9	6.0	0	-1	5
10 or more	60.9	-3.4	286.3	45.8	-0.5	0	-2	3

\*For household heads aged 63 or younger working full-time at the time of the 2007 and 2009 surveys who either reported a stopping age in both surveys or said they would never stop full-time work in both surveys.

**Table 13. Positive and negative financial events in 2007–09 period and biggest financial challenges by change in wealth percentile**

Change in wealth percentile	Income / Employment	Portfolio	Economy	Long-term saving	Other	None
Most important positive event for family's finances						
Less than -10	40.0	12.6	0.9	n/a	10.7	35.9
-10 – -3.1	43.8	11.3	2.0	n/a	12.2	30.7
-3 – 2.9	43.4	14.6	1.6	n/a	11.5	28.9
3 – 9.9	46.2	11.7	1.0	n/a	11.1	30.0
10 or more	47.6	14.5	0.9	n/a	11.5	25.5
Most important negative event for family's finances						
Less than -10	34.1	18.5	16.2	n/a	23.1	8.0
-10 – -3.1	28.7	15.7	18.3	n/a	28.9	8.4
-3 – 2.9	24.7	24.0	17.1	n/a	24.7	9.5
3 – 9.9	29.1	17.3	15.9	n/a	24.4	13.2
10 or more	27.4	15.7	15.2	n/a	26.9	14.9
Biggest financial challenge						
Less than -10	37.8	27.5	n/a	23.1	7.1	4.5
-10 – -3.1	33.7	20.4	n/a	30.0	9.5	6.5
-3 – 2.9	29.8	17.7	n/a	31.6	13.5	7.4
3 – 9.9	34.0	18.9	n/a	30.6	10.8	5.7
10 or more	30.7	24.3	n/a	29.3	8.9	6.9

n/a Not applicable

Figure 1. Distribution of wealth: 2007 vs. 2009

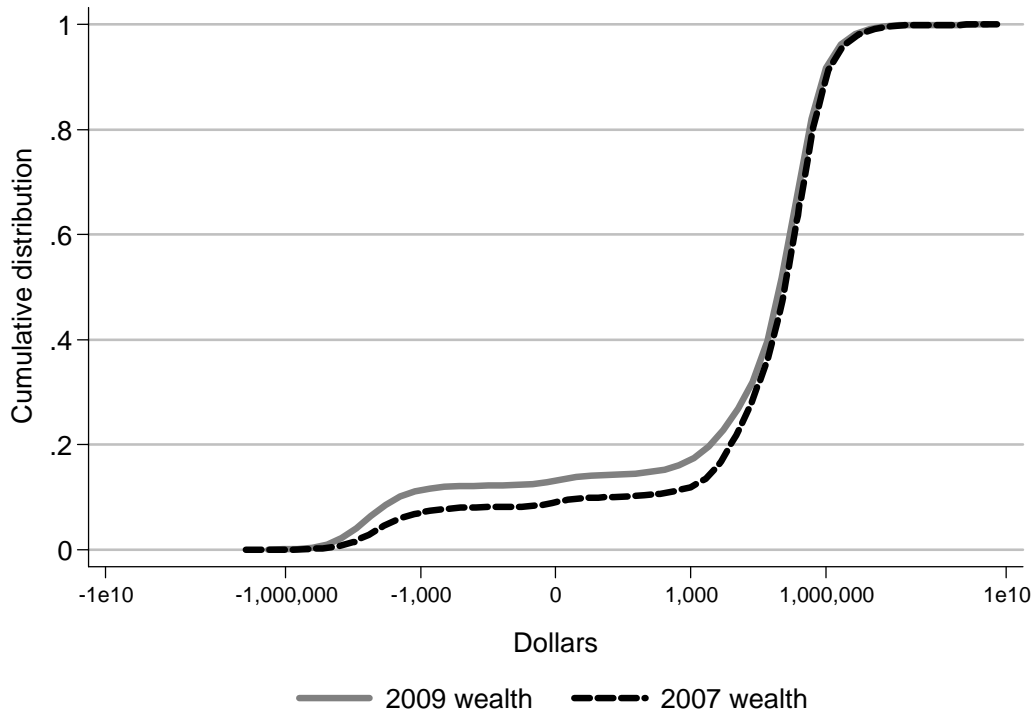


Figure 2. Quantile-difference: 2009 wealth- 2007 wealth

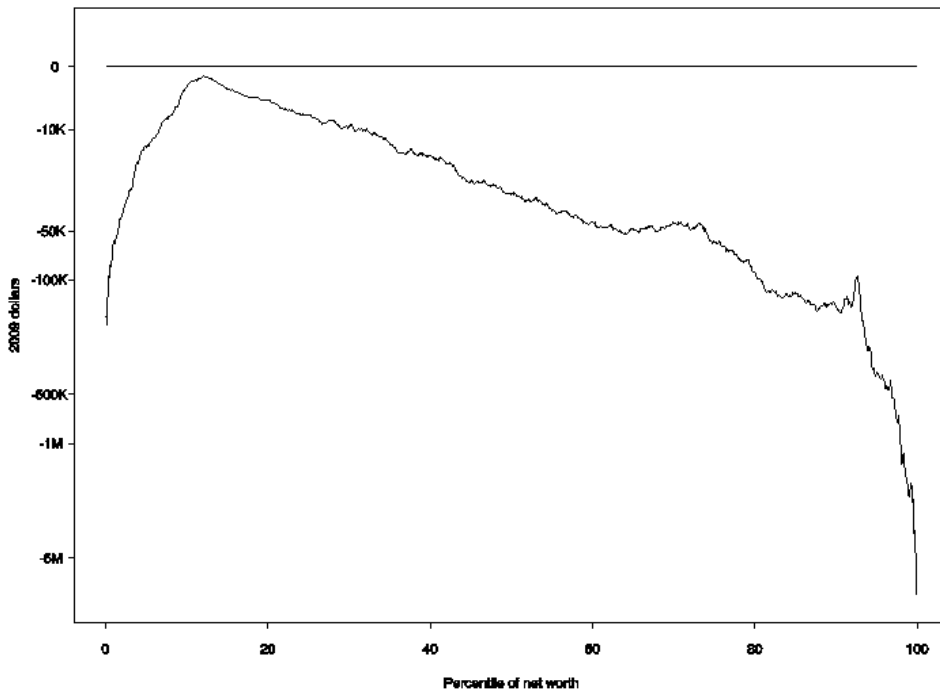


Figure 3. Density of changes in wealth

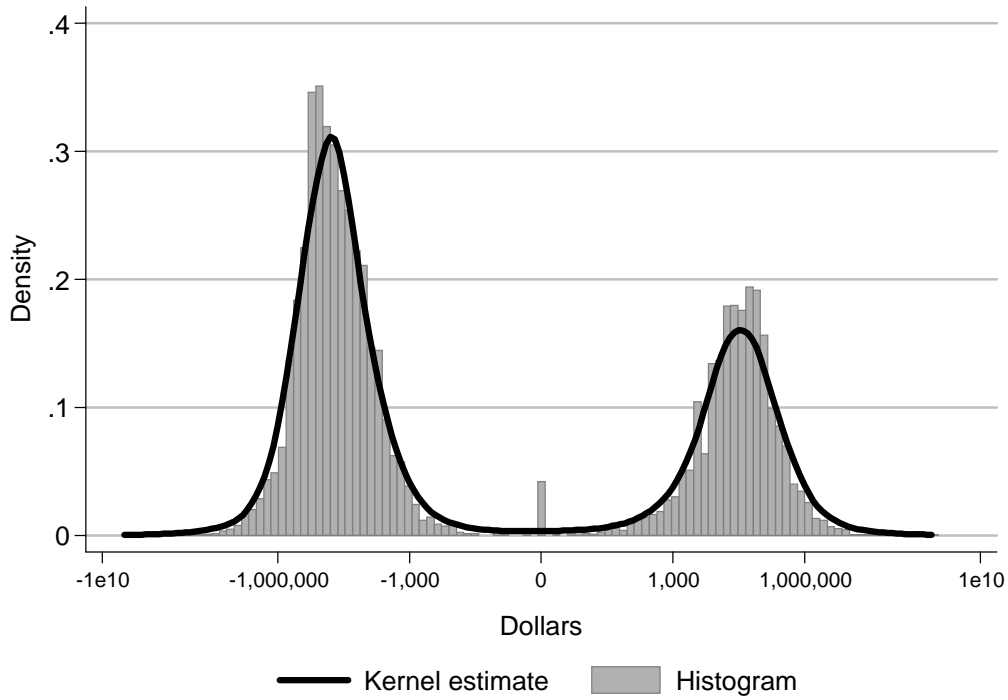
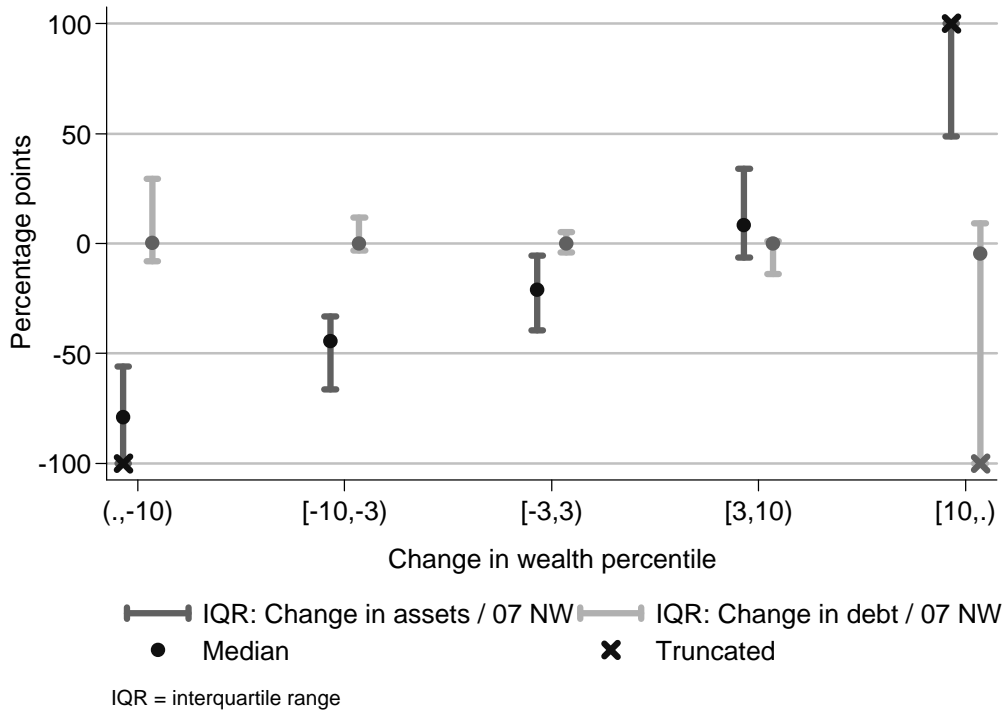
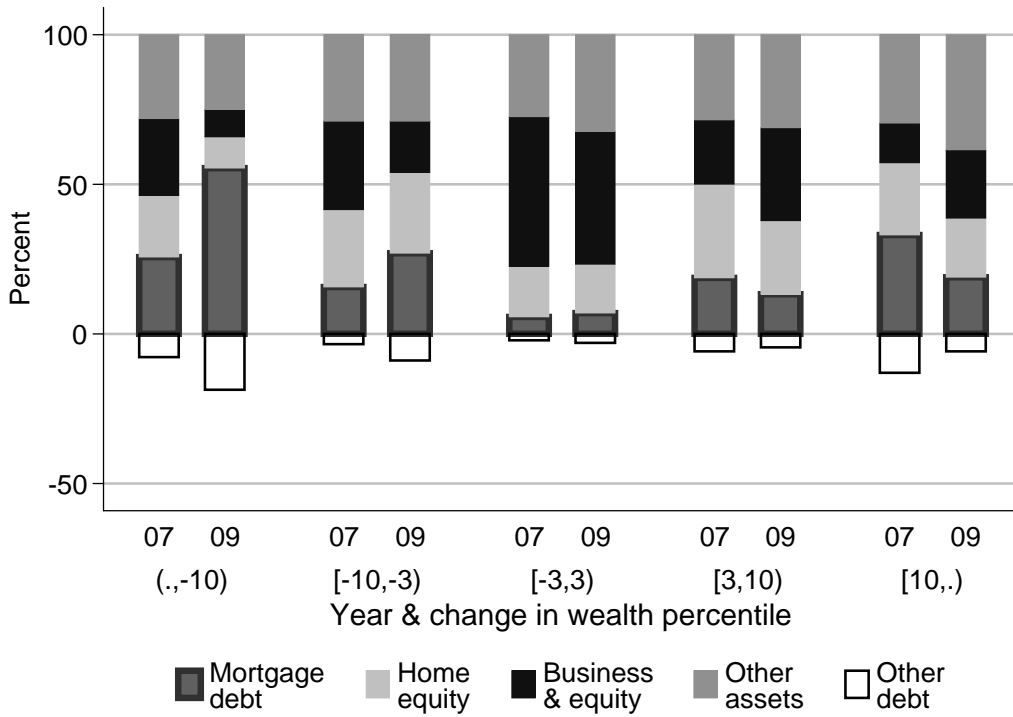


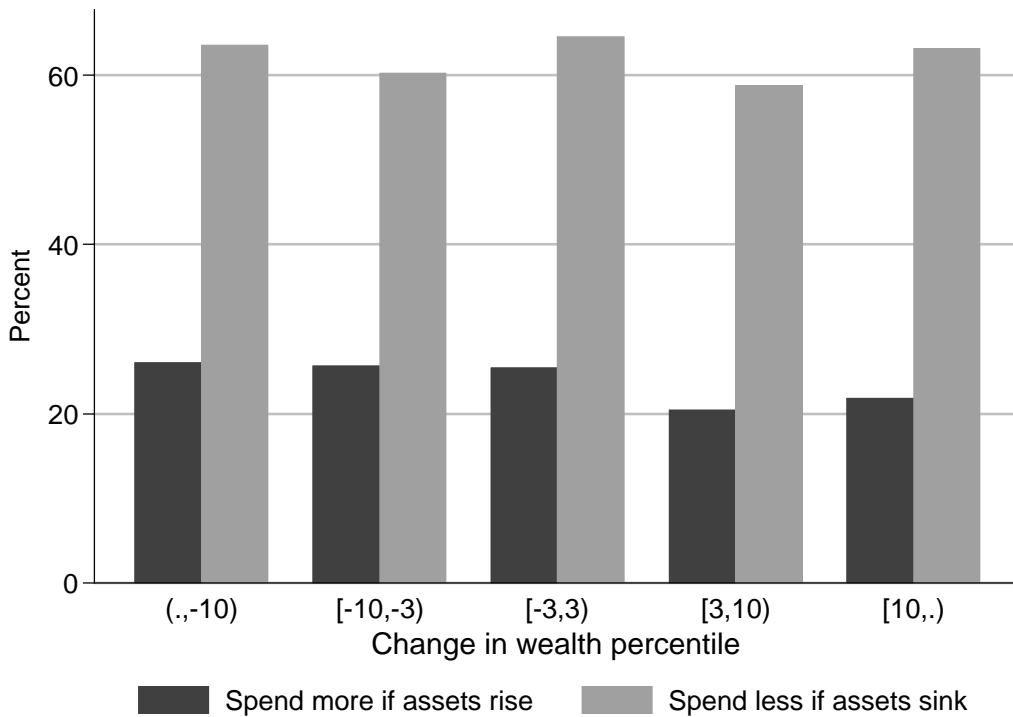
Figure 4. Change in assets and debt as a share of 2007 wealth, by change in wealth percentile



**Figure 5. Portfolio shares relative to assets, by year and change in wealth percentile**



**Figure 6. 2009 Share that spend more (less) if value of assets goes up (down)**



**Figure 7. Economic expectations by change in wealth percentile**

