

Home Equity and Other Differences in the Wealth of Low- and Moderate-Income Homeowners: A Work in Progress

by

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“The economic positions of two families with the same incomes but widely different wealth levels are not identical. The wealthier family is likely to be better able to provide for its children’s educational and health needs, live in a neighborhood characterized by more amenities and lower levels of crime, have greater resources that can be called upon in times of economic hardship and have more influence in political life.” Wolff (2001) p. 7

I. Introduction

It is well documented that the distribution of wealth in the United States is more highly skewed than the distribution of income (Oliver and Shapiro 1990; Oliver and Shapiro 1995; Miller-Adams 2003; Caner and Wolff 2004). While it is generally thought that home equity plays a role in this growing disparity, it is not just the value of home equity that seems to explain why renters hold fewer assets than homeowners. When wealth is evaluated in terms of “asset poverty,”¹ excluding home equity, research suggests that renters are more than twice as likely to be asset poor as owners (Caner and Wolff 2004). Renters also hold a smaller range of assets than owners, suggesting that homeownership “implies more than home equity, and is associated with the ownership of a wide range of financial assets” (Haveman and Wolff 2004, p. 155).

We know little about the relationship between housing tenure and wealth held by low- and moderate-income households (LMI) and even less about the composition of the asset portfolios of lower-income homeowners and renters and the factors associated with portfolio differences. This paper attempts to help fill this information gap. We explore net worth differences across a sample of LMI homeowners and renters, looking in particular at the effects of social, demographic, and economic variables on the likelihood that households will hold particular types of assets and debts and the role that housing tenure plays in the selection process. Our sample consists of LMI households who bought homes with mortgages originated by lenders who participated in a national pilot program called the Community Advantage Secondary Market Demonstration (CAP) and a comparable sample of LMI renters. CAP is a Ford Foundation-supported collaboration between Fannie Mae and Self Help, a leading community development financial institution (CDFI).² The primary data for this paper are from in-home interviews with sample households conducted during the fourth quarter of 2005. Although our net worth data are as of December 31, 2005,³ we are able to extend our analysis of home values to the 1st Quarter of

¹ Measures of asset poverty assess the ability of households to meet their basic needs for a limited period of time (generally three months) relying solely on their wealth.

² The data used in this study are from the Community Advantage Program (CAP); see Methodology section for a description of CAP. CAP data differ from the data gathered under the Survey of Consumer Finances (SCF) in several ways. First, SCF data are cross-sectional, which precludes analysis of changes in wealth over time for particular households, while CAP includes panel data, allowing for an examination of the impact of homeownership on the wealth of individual LMI households over time. Second, while the entire CAP LMI sample consists of non-elderly working age households of interest to housing policy makers, a significant portion of the SCF low-income sample consists of older non-working households.

³ Analysis of the portfolios of low- and moderate-income renters will be restricted to 1,685 owners and renters aged 20 through 59. Wealth accumulation is positively correlated with age (up to a certain point, when it becomes negatively correlated with age; see Orzechowski and Sepielli, 2003), with householders of retirement age having greater net worth than younger householders (Bucks, Kennickell, and Moore, 2006). Analysis of equity and house price appreciation will be conducted for the 849 owners in this group of 1,685. Analysis of equity and house price appreciation will also be conducted for over 20,000 homeowners in the greater CAP loan database.

2006 so that we can begin to assess the impacts of the softening housing market on home equity values. Periodic values of homes owned by CAP households are obtained from Fannie Mae's proprietary automated valuation system, which enables us to estimate changes in accumulated home equity in the absence of a sale. While these estimates of paper gains and losses are just that, they are derived from the same models that Fannie Mae uses to mark to market the asset value that collateralizes its own mortgage portfolio.

Following this descriptive presentation, in the second part of our paper, we model the likelihood of LMI panel members' holding various asset and debts. In this analysis, we pay special attention to the influence of homeownership on household asset and debt holdings. The concluding section addresses policy considerations flowing from our analysis. As a backdrop for our empirical analysis, we begin with an overview of recent homeownership trends and the importance of home equity in household wealth.

Recent Homeownership Gains

During the 1990s a confluence of favorable demographics, unparalleled economic growth, and low interest rates combined with an aggressively supportive public policy environment to propel national homeownership rates to record levels. Historically low interest rates sustained housing's bull market through the recent recession, while rising home prices boosted consumer spending through a so-called wealth effect. What is most notable about this housing boom is that it was led by gains in the affordable housing sector and among minorities, thanks in part to the widespread adoption of "affordable" mortgage products. These mortgages follow flexible underwriting guidelines that feature lower down payments, higher debt burden limits, lower cash reserves, and nontraditional means of verifying creditworthiness. Flexible underwriting is important because it helps address barriers to homeownership among nontraditional borrowers. (CAP mortgages are typical of these kinds of home loans.)

From 1993 to 2003, home purchase loans grew almost six times faster to Hispanics than to whites, four times faster to Asians, and twice as fast to African Americans. At the same time, loans doubled among low- and moderate-income (LMI) buyers, while loans to higher income borrowers rose by 88-percent. Mortgage lending to underserved populations is on the rise not just because public policy requires it, but also because the changing demographics of the country and best business practices demand it. The minority share of the U.S. population, 26-percent in 2000, is estimated to reach 34-percent by 2020 (Joint Center for Housing Studies, 2004). And ninety-percent of the country's projected population growth through 2050 will consist of minorities.

From 1995 to 2005, minorities accounted for just under half of the 12.5 million increase in the number of homeowners (Population Resource Center, 2006). The twelve million African-American and Hispanic households expected to enter the home purchasing market over the next five years will account for as much as 80-percent of all first-time homebuyers. This should be compelling evidence that minority homebuyers, once a sub-market forged out of the fires of federal anti-redlining mandates, are a critical component of the mortgage industry's core business (Freddie Mac, 2004). Homeownership policies must recognize and build upon this new market-based reality.

The Importance of Home Equity in Household Wealth

Historically, Americans have always held an enormous amount of their collective wealth in their homes; in 2002, this was a staggering \$7.6 trillion, which translates to an average equity per homeowner of \$104,000 (Fannie Mae, 2004). However, since the high-tech meltdown in 2001, when stock portfolios lost \$1.4 trillion in value, housing's relative importance in household portfolios has grown considerably. With housing outperforming the rest of the economy, home equity grew by more than \$405 billion between 2001 and 2002. Among homeowners who also hold stock, in 2002 66-percent of them had more home equity than stock wealth, an increase of 5-percent from the previous year (Joint Center for Housing Studies, 2003). Moreover, the recent run-up in housing prices has pushed home equity levels even higher, to more than \$11 trillion at the end of 2005 (Joint Center for Housing Studies, 2006).

Home equity has been especially important to the lowest income households, those at the bottom quintile. For homeowners in this group, the median net wealth in 2001 was \$68,000, while that of similarly situated renters was only \$500 (Joint Center for Housing Studies, 2003). "Among these owners, home equity accounted for 80-percent of their net worth, compared to 48-percent for owners in the middle quintile and 26-percent for those in the highest quintile" (Belsky and Calder, 2004). For moderate-income, African American, and Hispanic households, home equity represented more than one-half of their net wealth (Consumer Federation of America, 2003).

The recent rise in African-American homeownership and a narrowing of the wealth gap over time are not necessarily related, but the numbers are impressive all the same. From 1989 to 2001, the ratio of median household wealth among African Americans compared to that of all U.S. households rose from about nine-percent to 22-percent, while the rate of homeownership among African Americans climbed from 42-percent to 48-percent over a roughly comparable period. In dollar terms, the net wealth of the typical African-American household rose from \$5,919 in 1989 to \$19,010 in 2001, an increase of 221-percent. By comparison, the net wealth of the typical U.S. household rose by just one-third (BET.com and Consumer Federation of America, 2003).

The Community Advantage Secondary Mortgage Program (CAP)

As indicated earlier, the data for our analysis were gathered as part of the Community Advantage Secondary Market Demonstration⁴. The goal of CAP is to provide evidence to lenders, policy makers, and the secondary mortgage market that low-wealth borrowers are "bankable," and that Fannie Mae (and, by implication, Freddie Mac) can significantly expand their purchase of affordable housing loans without compromising their balance sheets or the

⁴ With a Ford Foundation grant to underwrite a significant portion of the credit risk, Self-Help purchases affordable mortgages such as Community Reinvestment Act (CRA) loans from participating lenders. These loans could not otherwise be sold readily in the secondary market, because borrowers typically have high debt to income levels, limited assets, non-traditional employment, or poor credit history, or the loans may lack private mortgage insurance. Participating lenders originate and service the loans under contract with Self-Help. Because Self-Help retains recourse on these loans, it then securitizes or sells them to Fannie Mae, effectively creating a traditional outlet for otherwise illiquid loans. This allows lenders to extend more home loans to customers who may not qualify under traditional mortgage guidelines.

safety and soundness of their practices. The Center for Community Capitalism, a University of North Carolina at Chapel Hill-based research center, is undertaking in-depth, long-term research on CAP in order to evaluate the performance of these loans and the social and wealth impacts of homeownership for low- and moderate-income borrowers.⁵

The multi-year evaluation includes a six-year series of annual interviews with a panel of CAP borrowers. In an attempt to isolate the effects of homeownership, a panel of renters was also fielded as part of our study. Because of considerable differences in income and demographic composition, we cannot make meaningful descriptive comparisons between our owner and renter panels; the most powerful use of our renter panel is in our modeling of asset and debt holdings where we can statistically control for these differences. Therefore, in the following descriptive analysis, we describe differences among the panels without attributing causality to any differences we find.

II. The Net Worth⁶ of Low- and Moderate-Income Homeowners and Renters

The median adjusted net worth of cap owners is \$28,364, with about 59-percent of net worth accounted for by home equity (Table 1). Severe liquidity constraints accompany homeownership for many of CAP's LMI owners, and this theme persists throughout our analysis. CAP owners hold a median of just \$3,250 in liquid assets (defined as assets that can be readily converted to cash). The median (adjusted) net worth of our LMI renter panel is just \$2,000, and they hold median liquid assets of just \$900 (Table 2). Before discussing the components of net worth, given the importance that home equity reportedly plays in homeowners' wealth, we first look at how home values have changed since purchase, and the impacts of the softening housing market on wealth.

The Role of Housing Wealth for CAP Homeowners

As indicated earlier, virtually all of the CAP home loans are part of the broad class of affordable mortgages featuring a menu of liberalized underwriting guidelines, including low down payments. The median down payment for all buyers was just \$1,628 on a median priced house of \$86,000. Current (appreciated) median home equity for all CAP panel owners is \$15,420—a little lower for whites (\$14,117), a little higher for blacks (\$16,434), and much higher for Hispanics (\$26,271) (Table 3). It is quite unusual for minority homeowners to have experienced greater paper gains in housing wealth than white buyers; however, this finding is not pursued at length in this paper. From other analysis discussed elsewhere, we know that geography plays a significant role in housing price appreciation, and we know that a significant-percentage of Hispanic CAP households live in California. At a 6.3-percent average compound annual rate, Hispanic homeowners have enjoyed higher appreciation rates than blacks (2.8-

⁵ To qualify for the CAP program, borrowers must meet one of three criteria: (1) have income under 80-percent of the area median income (AMI) for the metropolitan area; (2) be a minority with income below 120-percent of AMI; (3) or purchase a home in a high-minority (>30-percent) or low-income (<80-percent AMI) census tract and have an income below 120-percent of AMI.

⁶ In this paper, we use the term adjusted net worth because we lack data on two types of debt: outstanding debt on vehicles owned, and outstanding debt on property owned other than a principal residence. Because both missing data items are for debt, our analysis overstates net worth. Following our initial reference to adjusted net worth, for convenience, we use the term net worth throughout the remainder of the paper.

percent) and whites (3.8-percent). These higher rates have translated into substantially greater absolute amounts of wealth creation. While the median CAP home rose by 16-percent over the homeownership period, the median increase enjoyed by Hispanic homeowners was 25-percent (Table 4).

Because the CAP portfolio consists of non-conforming affordable housing loans—about 14-percent of our sample homebuyers either had no established credit score or a credit score of less than 620 at time of purchase—we are able to track the homeownership experience of a group of LMI borrowers who are generally either shut out of the homeownership market because of a poor- or no credit-record, or relegated to the high-priced subprime market where predatory lending is common. While we have reported on the loan performance and default experiences of these households elsewhere, here we report on the wealth impacts on these marginally-qualified home buyers. The median equity gain since purchase for those without a credit score and for the <620 group is \$13,216 and \$11, 809, respectively, with total current equity somewhat higher due to the original low down payments (Table 5).

These equity levels are not only important from a wealth standpoint; they also provide a cushion against a serious default problem. LMI, credit-impaired households who face a possible foreclosure action have more work-out possibilities and pre-foreclosure sales options that can either enable them to retain their home or exit with some wealth. Also, as research suggests, financially challenged homeowners are much less likely to exercise a default option if their outstanding mortgage is significantly less than market value.

Accumulated home equity is partly a function of the time since purchase, especially during the recent period of escalating home prices (although market timing relative to the housing cycle and other factors enter the picture as well). For our CAP panel, the 1999 origination cohort has a median current home equity of \$22,644, which is significantly greater than more recent buyers, although they are enjoying a slower average annual appreciation rate than others (Tables 6 and 7). For all owners, home values since purchase have risen by a median of \$15,420—more for the earliest purchasers (\$18,500) and less for the more recent purchases (\$8800 for 2003 purchases). This translates into an average compound annual increase in value increase of 3.8-percent for the entire panel.

What About the Housing Bust?

Since they bought their homes, fewer than three-percent of all owners experienced an absolute decline in the value of those homes. Significantly, however, African Americans have fared worse than other CAP owners, with more than nine-percent of all black CAP owners experiencing a decline in home value since purchase (Table 4). This important issue is pursued below; it will also be explored more fully in our future work.

As indicated earlier, our in-home wealth and asset survey data were collected in late 2005, which is why most of our wealth analysis stops at that time. However, because of recent housing market trends which suggest that prices are declining in many regional markets, we have extended our housing wealth analysis another quarter, ending in March 31, 2006. In this part of the paper, we examine the effects of the housing cycle on paper equity. Though it covers just a

thin slice of the housing cycle, the picture isn't pretty. While the research literature is mixed as to whether lower value homes experience less price volatility than higher priced homes over the cycle, we found that 60-percent of all CAP homes fell in value just during the first quarter of 2006 (Table 9). Although the median price decline was a modest 1.6-percent or just \$1,600, for the most recent buyers (2003), it was 2.3-percent, which translates to a fall in paper equity of \$2,100 (Table 10).

When compared with white and black owners, 20-percent fewer Hispanic owners experienced price declines in the first quarter of 2006. In addition, for those Hispanics whose homes fell in value, the median-percentage decline was also lower, 1.8-percent compared to 2.8-percent for blacks, and 2.3-percent for whites (Tables 11 and 12). While these modest declines do not threaten accumulated equity from two to five years of appreciated home values, depending upon how long the down cycle lasts and how market trends interact with previous decisions to borrow against accumulated equity, a significant share of CAP owners could end up in serious trouble in the foreseeable future. The issue of negative equity is discussed briefly below and will be the source of extensive future analysis.

A Further Note on Negative Equity

As of March 2006, fewer than three-percent of all CAP homes had depreciated in value over the homeownership period, but almost three times that many owners have negative equity in their homes, including 10-percent of all white, and 16-percent of all black households (Table 13A). What accounts for this surprising state of affairs is the accumulation of post-purchase mortgage-related debt due to cash-out refinancings, second mortgages, and use of home equity lines of credit (HELOC). Of the 219 CAP buyers who refinanced their first mortgage, 59-percent chose cash out refinances which increased their mortgage debt. Another 11-percent of CAP borrowers took out HELOCs, while around 8-percent took out a second mortgage after they bought their home (Table 14). In short, 80-percent of all owners with negative equity are in this position not because of depreciation in the value of their homes, but because of their accumulation of post-purchase mortgage-related debt!

Clearly, negative home equity seriously erodes net worth, but not non-housing wealth. CAP owners with negative equity have an adjusted net worth of just \$6,163, which is 80-percent lower than owners with positive home equity (Table 15). Notably, there is little difference in liquidity constraints of the two groups; at the median, both have similar levels of liquid assets (\$3200-\$3300), and non-home equity wealth (\$11,000 and \$12,000).

Conclusion

It is troubling that the outstanding mortgage debt of about one tenth of all CAP owners exceeds the current market value of their homes. However, this distressing news should not be allowed to eclipse the overall positive experiences of most households. Overall, CAP homes bought between 1999 and 2003 enjoyed an average annual paper capital gain of 7.43-percent (a median rate of 3.8-percent) through the end of March 2006. This is slightly below the national house price appreciation index that rose an average of 8.86-percent per year, but more than three times greater than the average annual rise in the Dow Jones Index (2.51-percent) and more than

twice the average rate on a 6-month CD (3.49-percent) over the same time period. As robust as these returns are, they pale in comparison to the returns that CAP homeowners enjoyed on their original equity investments. For all owners, the average annual rate of return on initial equity was a whopping 65-percent, with black owners gaining 47-percent per year, Hispanics 73-percent, and whites 69-percent (Table 8).

What is the relevance of these preliminary findings to policy? While homeownership is not for everybody, given the large leveraged (paper) gains and the fact that minority homeownership rates still trail that of white households by 20-percentage points, our work supports continued efforts to narrow that gap. While we agree with Yamashita and others that because owner-occupied housing is part consumption and part investment good, and its indivisibility forces many lower income households to “over-invest” in housing, which forces them to hold a riskier portfolio than they might otherwise prefer, we are also mindful of research that finds for such households “over time, non-housing wealth accumulation is at best minor and, for minority families, often negative” (Boehm and Allan Schlottmann, 2004)

Our position conflicts with Oliver and Shapiro who view housing equity as a solid source of intergenerational wealth, but not so good a source of stored wealth for the current generation. They say that “most people do not sell their homes to finance college education for their children, start a business, make other investments, buy medical care, support political candidates, or pay lobbyists to protect their special interests.” (Oliver and Shapiro 1995, pp. 59) However, as we have shown and the literature confirms, homeowners can now borrow against their accumulated equity to finance a wide range of human capital and other needs. How judiciously and responsibly they do so, however, is another question.

III. The Composition of Household Portfolios

We turn now to the composition of household wealth portfolios. Our analysis is both descriptive and analytical. We first describe the distribution and level of assets and debts held by owners and renters, and then we model the propensity of households to hold a particular class of assets or debts, and the influence of housing tenure on portfolio composition.

Our sample of LMI owners and renters varies in their propensity to hold particular types of assets and debts and in the value of their holdings. The most commonly owned asset held by 90-percent of all households is a motor vehicle(s); with an estimated median value of \$8,000 (Table 16). Our LMI households are more than four times as likely to own a vehicle as they are to hold stocks, mutual funds and other similar investments; and the median value of these holdings is just \$2000. The greatest source of gross wealth, but held by only 9-percent of all households, is real property (excluding a principle residence). The median estimated market value of such property is \$25,000, exclusive of mortgage debt. On the debt side of the household ledger, most (85-percent) households hold credit card debt, with a median unpaid balance of \$2,000. Thirty-five-percent of households hold installment debt, with a median balance of \$6,600; the majority of this debt is in the form of student loans.

As mentioned earlier, we specified eight binary logistic regression models to help us identify the factors that influence household decisions to invest and incur different forms of debt

(Table 17). The regression analyses assess how different independent variables influence the likelihood that CAP owners and renters hold certain types of assets and debts.

Each model tests the effects of the same set of independent predictors (Table 18). These independent variables are of three general types: demographic--because research confirms that life-cycle and related socioeconomic attributes influence asset and debt holdings (Hurst et al. 1998; Juster et al. 1999; Gouskova and Stafford 2002; Haurin et al. 1996); tenure (own/rent) because much of the descriptive literature on wealth finds a significant difference in the asset holdings of owners and renters (Boehm and Schlottman 2004; Haveman and Wolff 2001, 2004; Caner and Wolff 2004);⁷ and a small set of attitudinal and behavioral variables that are thought to influence financial behavior; having to do with financial literacy, attitudes toward money, and the onset of an urgent credit crisis (Rhine et al. 2001; Schooley and Worden 1996; Chiteji and Stafford 1999; Stegman, Rocha and Davis 2005).

Empirical Results⁸

We present our regression results below, working our way through each asset and debt class and discussing the more interesting findings from these models. While we identify statistically significant variables in each model, we do not lose sight of the principal goal of this part of our paper, which is to identify the role that housing tenure plays in savings and investment decisions, and in the use of non-mortgage credit. Overall, our analysis suggests that homeownership is an important driver of certain types of financial decisions, but not all decisions. Other things being equal, low- and moderate-income homeowners are more likely than renters to be banked, hold cash value life insurance, own other real property and hold miscellaneous assets. They are also more likely to hold miscellaneous debt, ostensibly to help meet emergency needs, and to hold credit card debt (Table 19). Importantly, we find no independent influence of homeownership on households' holding of stocks, mutual funds, bonds, or other investment securities.

Holding Transaction Accounts and CDs

Our model of banking relationships is consistent with most of the relevant literature (Caskey 1994, 1997, 2004; Hogarth and O'Donnell 2000). Although our LMI sample is very different from the national SCF sample, our results are strikingly similar to those reported in the Federal Reserve Bulletin (Bucks, Kennickell, and Moore, 2006). Homeowners, those with higher incomes, and employed/retired households are significantly more likely to be banked. In addition, education, financial upbringing, and the number of children in the home also affect whether or not a household is banked..

⁷ This result is repeated in numerous studies of tenure choice. In most, the association is thought to result from higher wealth individuals selecting into homeownership. See Henderson and Ioannides (1983) for a model of the economic incentives related to tenure choice.

⁸ The authors wish to thank Trammell Brown, Statistical Research Associate at the Center for Community Capitalism, for his invaluable assistance in readying survey data for use in these analyses. The authors also thank Jonathan Spader, Graduate Research Assistant at the Center for Community Capitalism, and Angie Brice, Undergraduate Research Assistant at the Center, who both conducted reviews of the literature for this section of the paper.

What is the relationship between tenure and bank holdings? Other things being equal, CAP homeowners are five times more likely to hold checking accounts, savings accounts, and CDs than their renter counterparts. While approximately 20-percent of all renters are unbanked, we find that 18-percent of all black renters and about a third of all Hispanic renters do not have a relationship with a bank. Further, we find that unbanked renters are concentrated in the lowest income categories: thirty-percent of renters with incomes below \$10,000 are unbanked, as are 22-percent of renters with incomes between \$10,000 and \$20,000. The median account balance of renters is just \$375, compared to \$1400 for owners.

Another interesting finding from our transaction account/CD model concerns financial upbringing. Consistent with Stegman et al. (2005), we find a relationship between the banking status of children and of their parents.⁹ Controlling for demographic variables and tenure, financial upbringing is positively related to one's banking status, with adult householders whose parents were banked 85-percent more likely to be banked themselves.

Only one of the variables in our model—number of children in the household—is statistically significant and negatively related to the likelihood of being banked; this finding is also consistent with previous work (Caskey 2004; Hogarth et al. 2005).¹⁰ For every child in the home, the likelihood that that an LMI household is banked decreases by 17-percent. This finding is troubling in light of what has just been revealed concerning the importance of parents' being banked on their children eventually being banked. We find that the more children in a household, the less likely that the household is banked; by logical extension, we might expect that the more children there are in a household, the less likely these children are themselves to be banked in the future.

Investment Instruments

It is an established fact that savings bonds are usually owned by the wealthiest Americans and that, although stockholding is more widespread than bondholding, stockholding is also concentrated among the highest-income households (Bucks, Kennickell, and Moore 2006). What factors influence the likelihood that low and moderate-income households hold stocks, bonds and mutual funds? In addition to income,¹¹ six variables are significant and positive: employment, education, race and ethnicity, financial upbringing, current financial state, and attitudes toward money.

⁹ Related to the finding that financial upbringing predicts banking status, prior research has also linked financial literacy and financial attitudes to banking status. Lyons and Scherpf (2004) find that financial literacy training increases the likelihood that an individual plans to open a bank account; Hogarth et al. (2005) showed that individuals with medium to long-term planning horizons were substantially more likely to be banked.

¹⁰ Descriptive analysis in Caskey (2004) shows that a disproportionate-percentage of unbanked households contain three or more children, relative to banked households. Hogarth (2005) confirms that the number of children in a household predicts banking status when demographic controls are added.

¹¹ Income is positively correlated with the likelihood of holding investment instruments, with a greater level of income leading to an increased likelihood of households' holding stocks, bonds, and mutual funds. Specifically, those earning between \$30K and \$40K were almost twice as likely to hold investments than those earning \$10K to \$20K, those earning \$40K to \$50K over two-and-a-half times more likely, and those earning over \$50K over three times more likely to hold stocks, bonds, and mutual funds than those earning between \$10K and \$20K.

Interestingly, tenure is not a significant variable in our model of the likelihood that CAP's participants hold investments, despite the fact that prior research has found a link between tenure and investment holdings.¹² Hu (2003) found that "homeownership crowds out stock market participation" and Cocco's (2004) work supports this finding, that the "crowding out effect is larger for [those households with] lower financial net-worth" (pp. 564-5). However, our model reveals no relationship between tenure and the likelihood of holding investments; holding other variables constant, CAP's owners and renters are equally likely to own stocks, bonds, and mutual funds.

As was the case with bank holdings, our model finds racial and ethnic disparities in the likelihood that LMI individual will hold investments. Hispanics are 56-percent less likely to hold stocks, bonds, and mutual funds than non-Hispanic whites. In fact, just two-percent of Hispanics hold stocks (compared with 12-percent of whites, six-percent of blacks, and seven-percent of those classified as "other"), three-percent of Hispanics hold bonds (compared with 11-percent of whites, and six-percent of both blacks and those classified as "other"), and four-percent of Hispanics hold mutual funds (compared with 10-percent of whites¹³). These results are consistent with Coleman (2003), who found that Hispanic households are significantly more risk averse than non-Hispanic whites. Coleman found a significantly higher-percentage of Hispanic heads indicated that they were "unwilling to take any risk in exchange for investment returns." (Coleman 2003, p. 50).

A final interesting finding from our model is that financial upbringing, current financial state, and attitudes toward money all affect the likelihood that one holds stocks, bonds, or mutual funds. As was the case with whether or not one is banked, one's parents' holding transaction accounts increased the likelihood that one would hold such assets by a factor of two. A consumer credit crisis (measured by whether or not a bill collector had called the household since the prior CAP interview¹⁴) is negatively correlated with owning such assets; specifically, households contacted by a bill collector are only 58-percent as likely to hold stocks, bonds, or mutual funds. A more carefree attitude toward spending is also negatively related to the likelihood of holding investment instruments. The more strongly interviewees agree with the statement "if you've got money, you might as well spend it," the less likely they are to hold investments. For each one point shift along a 5-point Likert scale¹⁵ the likelihood of households' holding stocks, bonds, and mutual funds decreases by 20-percent.

Cash Value Life Insurance

The Survey of Consumer Finances indicates that ownership of cash value life insurance is "broadly spread across demographic groups, with a tendency toward increasing rates among families with higher levels of income and wealth and those with older family heads" (Bucks, Kennickell, and Moore, p. A17) Our model confirms the role of age, but we also find that

¹² The works cited here model households' level of investment in stocks; the discrepancies in our findings might therefore stem from this fundamental difference in our unit of analysis.

¹³ In their holding of mutual funds, Hispanics fare slightly better than blacks and those classified as "other"; only three-percent of each of these groups holds mutual funds.

¹⁴ This was typically 14 months for renters and 20 months for owners.

¹⁵ Agreement with this statement was measured on a five-point Likert scale as follows: 1=strongly disagree, 2=agree, 3=neither disagree nor agree, 4=agree, and 5=strongly agree.

race/ethnicity, tenure, and attitudes toward money exert independent effects on the decision to hold cash value insurance.

Homeownership is positively related to the likelihood of holding cash value life insurance. Controlling for all other predictors, CAP's owners are almost twice as likely as renters to carry such insurance. This suggests that homeowners might be more concerned than renters with preserving their housing asset in the event of their death. While only 20-percent of CAP owners hold cash value life insurance, 79-percent hold either term life insurance, cash value life insurance, or both. Only 44-percent of renters hold any type of life insurance. This disparity does suggest that owners are more likely than their renter counterparts to take steps to protect their survivors, and this action might be spurred by the desire to protect the home should the insured individual die.

As in our two preceding models, we find that race and ethnicity affect the likelihood of holding cash value life insurance. Holding other factors constant, Hispanics are less than half as likely as whites to hold cash value life insurance. Blacks, on the other hand, were 2.5 times more likely than whites to hold cash value life insurance.. This result is consistent with prior research that finds that black households, when compared with white households, “demonstrate a distinct preference for safety and security in their investment preferences, favoring life insurance and real estate assets over corporate debt and equity securities across all levels of household income and educational attainment” (Plath and Stevenson 2000, p. 357).

Property Holdings

The 2004 SCF reveals that the rates of ownership of property other than the primary residence (including equity in nonresidential property) are higher for whites, higher income households, households headed by older individuals,¹⁶ and among homeowners (Bucks, Kennickell, and Moore 2006). In keeping with this research, our model reveals that tenure, income, and age have significant effects on the likelihood that households hold property other than the primary residence; marital status, number of children in the home, and race/ethnicity (though our findings concerning race/ethnicity are somewhat different from those revealed by SCF).

Given the lower incomes of our combined sample we were surprised to find that 13-percent of CAP's owners and six-percent of renters report holding property other than their primary residence. Homeownership is positively correlated with the likelihood of holding such property. Holding other variables constant, CAP's owners are 70-percent more likely than their renter counterparts to hold property other than the primary residence, with the predominant type of property held being land—this is true for 57-percent of owners holding such property and for 76-percent of renters.

Our findings concerning race and ethnicity differ from those revealed by analysis of the 2004 SCF. Holding other variables constant, CAP's Hispanic households are more than twice as likely as their white counterparts to hold property other than the primary residence. A more

¹⁶ Though a decline is seen in the rates of other residential real estate holdings after the age of 74 and in the rates of equity in nonresidential property holdings after the age of 64.

detailed examination of our survey data finds that 13-percent of all Hispanic households hold property other than a primary residence, compared with only nine-percent of all white households. Hispanic renters are much more likely than their white counterparts to own such property: a full 12-percent of Hispanic renters hold property other than a primary residence, compared with an ownership rate of only five-percent for white renters. The rates for Hispanic and white owners are more comparable: 14-percent of CAP's Hispanic owners hold property other than their home while 12-percent of CAP's white owners do the same.

Miscellaneous Assets

“Miscellaneous assets” is a catch-all for both financial and non-financial assets. This class of assets includes personal debt owed to the respondent in the amount of \$1,000 or more, expectation of future proceeds from a lawsuit or estate, or artwork, antiques, precious metals, oil and gas leases, futures contracts, or royalties. While the incidence in the general population of holding miscellaneous assets¹⁷ is greater among higher-income or younger individuals or homeowners, the likelihood that our LMI households hold such assets is influenced by income, education, race, ethnicity, and tenure.

Interestingly, homeownership is negatively correlated with the likelihood of holding miscellaneous assets. Controlling for all other predictors, CAP's homeowners are 35-percent less likely than their renter counterparts to hold miscellaneous assets. Further analysis of our survey data reveals that¹⁸ the key to this finding is that, controlling for other predictors, owners are 52-percent less likely than renters to be owed more than \$1,000 by anyone.¹⁹ This suggests that renters could be forgoing the opportunity to become owners by lending to others the funds that might be put toward a down payment on a home of their own.

Racial/ethnic variables were also significant in our model concerning miscellaneous assets, with Hispanics almost 93-percent more likely than non-Hispanic whites to hold such assets. Of those Hispanic households who report holding such assets, two-thirds earn less than \$40K per year. While we cannot say for sure what explains this disproportionately high prevalence among Hispanics, it may be related to their helping to support extended family members, both in the U.S. and abroad. While there is an extensive research literature on remittance behavior of Hispanics (see de La Garza 2002 for an excellent overview) we have not seen reference to more formal financial support of family members that is evidenced by an explicit understanding of a repayment obligation (which it would have to be in order to be counted as a miscellaneous asset).

¹⁷ Bucks, Kennickell, and Moore found that the rate of holding “other financial assets” (oil and gas leases, futures contracts, royalties, proceeds from lawsuits or estates in settlement, and loans made to others) was higher among higher income groups and among younger age groups; the rate of holding “other non-financial assets” (artwork, jewelry, precious metals, antiques, hobby equipment, and collectibles) was higher amongst non-Hispanic whites and homeowners.

¹⁸ The CAP variable “miscellaneous assets” combines responses to two questions: 1. is the interviewee owed more than \$1,000 by anyone and 2. does the interviewee have or expect any other assets not accounted for elsewhere, such as future proceeds from a lawsuit or estate, artwork, antiques, precious metals, oil and gas leases, futures contracts, or royalties

¹⁹ In the model concerning the likelihood that the respondent had or expected future proceeds from a lawsuit or estate, artwork, antiques, precious metals, oil and gas leases, futures contracts, or royalties, tenure had no effect.

Installment Debts

We now turn to an analysis of debt. Installment debts include outstanding student loans for the householder and student loans that the householder has taken out on behalf of children in the home. It also includes debt for major consumer durables that is not carried on bank-issued credit cards or other charge cards. The literature suggests that both demographic and attitudinal variables are associated with a household's level of installment debt. Not surprisingly, positive attitudes toward credit are associated with greater installment debt (Chien and Devaney 2001); however, there may be heterogeneity of attitudes across borrowers with different socioeconomic backgrounds. Baum and O'Malley (2003) found that borrowers from low-income families reported the most repayment problems, even when current income and current debt were controlled while African-American borrowers were more likely to report feeling burdened by their debt. In modeling installment debt among CAP's participants, six predictors were significant: education, income, number of children, age, financial upbringing, and attitudes toward spending. We discuss the most important influences among these variables below.

Thirty-five-percent of our combined owner/renter sample carry some installment debt, and 76-percent of these respondents have outstanding student loans for themselves, and five-percent have such obligations for their children. In contrast, just 28-percent of these same respondents have installment debt related to purchases for major consumer durables.²⁰ However, tenure is not a significant variable when it comes to the likelihood that CAP participants carry installment debt; all things being equal, owners and renters are equally likely to carry such debt.

Not surprisingly, education is a significant predictor in the model; householders with a bachelors degree are more than two-and-a-half times as likely as high school graduates to carry installment debt, while respondents with a graduate or professional degree are over twice as likely to do so. Income is another significant predictor, and our model reveals that households with incomes of more than \$50,000 per year are 68-percent more likely than those earning between \$10K and \$20K to have such debts. Each child in the home increases the likelihood that households will carry installment debt by 11-percent. On the other hand, age lessens the use of this form of credit,. Householders in their thirties are 30-percent less likely than those in their twenties to have such debts, while those in their forties are 53-percent less likely, and those in their fifties are 67-percent less likely.

Financial upbringing and attitudes toward spending are a bit of a surprise when it comes to the likelihood of having student loan debt or debt on major durables. On the one hand, those whose parents held transaction accounts are 48-percent more likely to carry installment debt than those whose parents didn't have transaction accounts. On the other hand, the likelihood of having installment debts decreases as interviewees agreed more strongly with the statement "if you've got money, you might as well spend it". These findings make more sense when one considers that the bulk of installment debt is accounted for by student loans, which can be thought of more as an investment in the future than as a matter of delaying payments for current consumption. When interpreted in this light, those who are more likely to use their money to

²⁰ These figures do not add up to 100-percent because some individuals carry more than one type of installment debt.

satisfy immediate wants and needs would be less likely to invest their money for a longer-term pay off; similarly, those who are raised in more financially savvy homes might be more likely to use money for long-term gain rather than to meet immediate wants and needs.

Credit Card Debt

The majority of CAP participants hold credit and charge cards²¹ and 85-percent of these individuals report carrying over monthly balances. The likelihood of holding such debt is influenced by four predictors: tenure, employment, age, and education.²²

CAP homeowners are almost twice as likely as renters to carry credit or charge card debt. (owners carry a median debt of \$2,850, versus \$800 for renters). Employed/retired respondents and older respondents are also more likely to carry debt on their credit and charge cards (those households with employed or retired heads are twice as likely as those households with unemployed heads to carry debt on their credit and charge cards). We find no statistically significant racial or ethnic differences in the likelihood of carrying such debt.

Education is the only variable that is negatively related to such debt holdings. Holding constant other predictors, householders with a graduate or professional degree are 61-percent less likely than those with only a high school diploma to carry debt on their credit and charge cards. This finding is consistent with previous analyses of the predictors of credit card use (Draut and Silva 2003).

Miscellaneous Debt

Miscellaneous debt includes debt against cash value life insurance, debt for an unexpected emergency, or any other outstanding debt greater than \$500. The likelihood of CAP participants' carrying miscellaneous debt is influenced by five independent variables: tenure, current financial state, race and ethnicity, sex, and education.

The logistic regression analysis reveals that CAP's owners are almost 11-times more likely than comparably situated renters to carry miscellaneous debt! Exploration of this finding reveals that of those owners who hold cash value life insurance, 63-percent have borrowed against their policies (compared with 37-percent of renters who hold cash value insurance). While CAP's owners and renters are equally likely to owe money on an unexpected emergency (approximately eight-percent of owners and seven-percent of renters report having such debt), owners are far more likely than renters to report owing at least \$500 to family, friends, or some other informal lender. When asked "not including debts that we have already talked about, do you owe more than \$500 to a relative outside your immediate family, a friend, a coworker, a business or someone else?" 73-percent of owners answered in the affirmative while only 22-

²¹ Of all CAP respondents, 63-percent report holding credit or charge cards; for owners and renters, this breaks down to 82-percent versus 44-percent, respectively.

²² We were surprised that income levels had no effect on the holding of credit card debt. Our initial suspicion was that interaction effects between age and income was causing income to come up as insignificant. To test whether or not this was the case, we re-ran the model and excluded age; however in this revised model, income remained insignificant.

percent of renters answered similarly. While we do not know exactly what owners spent this borrowed money on, the high incidence of CAP owners' carrying such debt could be associated with either buying their home or with a need to undertake unexpected home repairs after purchase.

The other variable that is positively correlated with the likelihood of carrying miscellaneous debt is the variable concerning current financial state. Those who had been contacted by a bill collector since the last interview were three times more likely than those who hadn't to carry miscellaneous debt, suggesting that individuals in financial straits are having to use all of the resources at their disposal to make ends meet.

Several variables were negatively correlated with the likelihood of holding miscellaneous debt. Both Hispanics and blacks were less likely than whites to carry such debts, with blacks 41-percent and Hispanics 35-percent less likely than whites to have borrowed on their insurance, to owe on an emergency, or to owe \$500 or more to friends, family members, or other informal lenders. Education is also negatively correlated with the likelihood of carrying miscellaneous debt; those with a graduate or professional degree are only 57-percent as likely as high school graduates to carry such debt.

Conclusions TO BE ADDED

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Table 1: Median Net Wealth of CAP Panel Owners, as of December 2005

	Total population	Owners
Adjusted Net Worth*	\$9,075	\$28,364
Adjusted Net Worth minus Home Equity	\$4,750	\$11,513
Liquid Assets**	\$1,875	\$3,250
N	1404	646

*Due to limitations in the data, "adjusted net worth" does not account for vehicle debt or debt on property other than primary residence.

**Sample size for "liquid assets" is 637 owners

Table 2: Median Net Wealth of Renter Sample Households, as of December, 2005

	Total population	Renters
Adjusted Net Worth*	\$9,075	\$2,000
Adjusted Net Worth minus Home Equity	\$4,750	\$2,000
Liquid Assets**	\$1,875	\$900
N	1404	758

*Due to limitations in the data, "adjusted net worth" does not account for vehicle debt or debt on property other than the primary residence

**Sample size for "liquid assets" is 630 renters

Table 3: Median Origination Equity and Median Current Equity for CAP Panel Owners by Race, as of March 31, 2006

	Total	White	Black	Hispanic	Other
Origination Equity	\$1,628	\$1,150	\$2,660	\$2,370	\$1,684
Current Equity	\$15,420	\$14,117	\$16,434	\$26,271	\$14,093
N	792	525	120	115	32

For loans with an LTV of 100% or greater, a \$500 downpayment was assumed.

Table 4: House Price Appreciation by Race for CAP Panel Owners, as of March 2006

	Total	White	Black	Hispanic	Other
Change in Value (\$)	\$11,700	\$11,500	\$10,050	\$21,000	\$10,450
Change in Value (%)	16.1	16.0	12.2	24.9	14.5
Annual Appreciation Rate	3.8	3.8	2.8	6.3	3.3
% with Depreciation	2.8	1.90	9.17	1	0
N	792	525	120	115	32

Reported values are medians, except in the final row. The annual appreciation rate is compounded monthly.

Table 5: Median Origination Equity and Median Current Equity for CAP Panel Owners by Credit Score at the Time of Loan Closing, as of March 31, 2006

	No Score	< 620	620-660	660-720	720+
Origination Equity	\$2,060	\$2,200	\$1,950	\$1,225	\$1,500
Current Equity	\$15,276	\$14,009	\$16,053	\$14,877	\$17,730
N	10	103	168	291	219

For loans with an LTV of 100 or greater, a \$500 downpayment was assumed.

Table 6 Median Origination Equity and Median Current Equity for CAP Panel Owners by Year of Origination, as of March 31, 2006

	Total	1999	2000	2001	2002	2003
Origination Equity	\$1,628	\$500	\$2,450	\$2,250	\$1,100	\$1,400
Current Equity	\$15,420	\$22,644	\$18,055	\$18,859	\$14,099	\$13,649
N	792	3	59	194	466	70

For loans with an LTV of 100 or greater, a \$500 downpayment was assumed.

Table 7: House Price Appreciation for CAP Panel Owners by Year of Origination, as of March 31, 2006

	Total	1999	2000	2001	2002	2003
Change in Value (\$)	\$11,700	\$18,500	\$15,500	\$14,900	\$10,450	\$8,800
Change in Value (%)	16.1	17.8	19.2	20.7	13.8	11.8
Annual Appreciation Rate	3.8	2.7	3.4	4.0	3.6	3.8
% that Fell in Value from Origination	2.8	0.0	1.7	0.0	4.3	1.4
N	792	3	59	194	466	70

Reported values are medians, except in the final row. The annual appreciation rate is compounded monthly.

Table 8: Equity Appreciation by Race of CAP Panel Owners, as of March 31, 2006

	Total	White	Black	Hispanic	Other
Current Housing Wealth (\$)	\$14,812	\$14,117	\$16,434	\$26,271	\$14,093
Change in Housing Wealth (\$)	\$13,282	\$12,464	\$12,761	\$25,134	\$12,362
Annual Appreciation Rate	65.3	66.8	47.1	72.5	62.4
N	792	525	120	115	32

Reported values are medians, except in the final row.

The average appreciation rate is compounded monthly.

For loans with an LTV of 100 or greater, a \$500 downpayment is assumed.

**Table 9: Number and-percent of All CAP Homes that Declined in Value, from Origination Date
All CAP Homes, Not Just Panel Members**

Year of Origination	N	Orig. to Dec. '05		Dec.'05 to March '06		Orig. to March '06	
		No.	%	No.	%	No.	%
1999	3,050	3	0.10%	1,880	61.64%	83	2.72%
2000	4,522	25	0.55%	2,914	64.43%	109	2.41%
2001	5,743	21	0.37%	3,218	56.03%	205	3.57%
2002	4,391	96	2.19%	2,482	56.52%	243	5.33%
2003	2,366	57	2.41%	1,527	64.54%	252	10.65%
Total	20,072	202	1.01%	12,021	59.89%	892	4.44%

**Table 10: Median Change in Home Values from Origination to Selected Dates,
All CAP Homes, Not Just Panel Members**

Year of Origination	N	Orig. to Dec. '05		Dec.'05 to March '06		Orig. to March '06	
		\$ Change	% Change	\$ Change	% Change	\$ Change	% Change
1999	3,050	\$26,100	32.94%	-\$2,500	-2.26%	\$22,050	26.87%
2000	4,522	\$18,100	26.01%	-\$1,700	-1.98%	\$15,500	22.32%
2001	5,743	\$26,800	34.67%	-\$1,200	-1.06%	\$22,900	29.02%
2002	4,391	\$19,100	22.31%	-\$1,100	-1.11%	\$15,800	18.97%
2003	2,366	\$10,450	12.85%	-\$2,100	-2.26%	\$25,146	9.94%
Total	20,072	\$20,100	26.36%	-\$1,600	-1.63%	\$16,500	21.98%

Table 11: Number and-percent of All CAP Owners Whose Homes Declined in Value from Origination by Race and Ethnicity

Race	N	Orig. to Dec. '05		Dec.'05 to March '06		Orig. to March '06	
		No.	%	No.	%	No.	%
White	10,537	84	0.80%	6,801	64.54%	381	3.62%
Black	3,610	85	2.35%	2,508	69.47%	265	7.34%
Hispanic	4,194	13	0.31%	1,704	40.63%	140	3.34%
Other	1,676	20	1.19%	969	57.82%	94	5.61%
Total	20,017	202	1.16%	11982	58.12%	880	4.98%

Table 12: Racial Breakdown of All CAP Owners Median Change in Home Value from Origination

Race	N	Orig. to Dec. '05		Dec.'05 to March '06		Orig. to March '06	
		\$ Change	% Change	\$ Change	% Change	\$ Change	% Change
White	10,537	\$17,100	22.62%	-\$2,100	-2.31%	\$13,900	18.74%
Black	3,610	\$15,400	23.13%	-\$2,500	-2.81%	\$12,100	17.35%
Hispanic	4,194	\$109,950	107.31%	\$3,100	1.83%	\$116,700	108.75%
Other	1,676	\$22,850	26.36%	-\$1,400	-1.22%	\$19,200	22.52%
Total	20,017	\$41,325	44.86%	-\$725	-1.13%	\$40,475	41.84%

Table 13: Percent of CAP Homes that Declined in Value in First Quarter of 2006 (N=20,072)

	Total	White	Black	Hispanic	Other
% Homes Declined in Value 1 st Qtr 2006	58.1	64.5	69.5	40.6	57.8
Median Change in Value 1st Qtr 2006	(\$725)	(\$2,100)	(\$2,500)	\$3,100	(\$1,400)
Med. Change in Value for Homes Losing Value	(\$12,000)	(\$10,700)	(\$12,000)	(\$15,400)	(\$13,000)

Table 13A: Percent of CAP Panel Owners with Negative Equity as of March 31, 2006 (N=792)

	Total	White	Black	Hispanic	Other
% CAP panel with Negative Equity as of 1 st Qtr 2006	9.7	9.9	15.8	4.4	3.1

Table: 14 Post-Purchase Mortgage-Related Debt by Race/Ethnicity, CAP Panel Owners

Debt Type	White	Black	Hispanic	Other	Total-percent	N
Refinanced	27.9%	23.3%	34.8%	15.60%	27.7%	219
Percent w/Cash Out Refi	58.9%	75.0%	45.0%	80%	58.9%	129
Second Mortgage	8.2%	10%	5.20%	3.10%	7.8%	62
HELOC	12.6%	5.0%	13.9%	3.10%	11.2%	89
Total CAP Owners who increased post-purchase mortgage debt					35.4%	280

Table 15: Median Wealth of CAP Panel Owners

	Total population	Owners	Owners with positive equity	Owners with negative equity
Adjusted Net Worth*	\$9,075	\$28,364	\$30,610	\$6,163
Adjusted Net Worth minus Home Equity	\$4,750	\$11,513	\$11,500	\$12,063
Liquid Assets**	\$1,875	\$3,250	\$3,250	\$3,363
N	1404	646	580	66

*Due to limitations in the data, "adjusted net worth" does not account for vehicle debt or debt on property other than the primary residence

**Sample size for "liquid assets" is 637 owners

Table 16: Asset and Debt Holdings of CAP Panel Owners

	Total Population		Owners		Renters	
	% Holding	Median	% Holding	Median	% Holding	Median
Assets						
Transaction						
Accounts/CDs	89.6	\$700	97.8	\$1,400	81.2	\$375
Investments	20.4	\$2,000	29.6	\$3,000	11.0	\$1,200
Insurance	16.1	\$2,300	20.1	\$4,000	12.0	\$1,000
Property Holdings	9.2	\$25,000	12.8	\$30,000	5.5	\$20,500
Vehicles	89.3	\$8,000	98.6	\$13,000	79.9	\$4,000
Misc. Assets	14.0	\$3,500	14.3	\$3,500	13.8	\$3,500
Debts						
Installment Debt	35.3	\$6,600	37.9	\$8,000	32.7	\$5,200
Credit Card Debt	84.9	\$2,000	86.9	\$2,850	81.1	\$800
Misc. Debts	51.3	\$1,050	74.9	\$1,500	27.4	\$1,000
N	1685		849		836	

Table 17: Binary Logistic Regression Dependent Variables

ASSETS	
Variable Name	Definition
Trans. + CDs	Whether interviewee or spouse/partner has transaction accounts or CDs, i.e. checking accounts, savings accounts, or CDs
Investments	Whether interviewee or spouse/partner has investments, i.e. savings bonds or other bonds, publicly traded stock, or mutual funds
Cash Value life insurance	Whether the interviewee or spouse/partner holds cash value life insurance
Property holdings	Whether the interviewee or spouse/partner holds property other than the primary residence, i.e. land, a vacation home, a timeshare, an apartment building, commercial property, or investment property
Miscellaneous assets	Whether the interviewee or spouse/partner has other miscellaneous assets, i.e. is owed \$1,000 or more by anyone, is expecting future proceeds from a lawsuit or estate, or has artwork, antiques, precious metals, oil and gas leases, futures contracts, royalties, etc.
DEBTS	
Variable Name	Definition
Installment. debt	Whether the interviewee or spouse/partner has outstanding installment debts, i.e. student loans, student loans taken out for a child, or debt outstanding on major durables.
Credit card debt	Whether or not those interviewees or spouse/partners who hold credit or charge cards have outstanding debt on these cards.
Miscellaneous. debt	Whether the interviewee or spouse/partner has other miscellaneous debts, i.e. debt against cash value life insurance, debt for an unexpected emergency, or any other outstanding debt greater than \$500.

Table 18: Binary Logistic Regression Independent Variables

Independent Variable	Measures
Age	20-29 (reference); 30-39; 40-49; 50-59 ²³
Sex	Female (reference); male
Race/Ethnicity	Non-Hispanic white (reference); black; Hispanic; other ²⁴
Education	<High school diploma; hold high school diploma (reference); hold bachelors degree; hold graduate or professional degree ²⁵
Income	<\$10K; \$10K-\$20K (reference); \$20K-\$30K; \$30K-\$40K; \$40K-\$50K; >\$50K ²⁶
Employment	Unemployed (reference); employed or retired ²⁷
Marital Status	Married or partnered; neither married nor partnered (reference) ²⁸
Children	Count of number of children in home for whom respondent has responsibility.
Tenure	Own; rent (reference)
Financial Upbringing	Parents had transaction accounts; parents didn't have transaction accounts (reference); don't know if parents had transaction accounts
Current Financial State	Bill collector has contacted home since last interview; bill collector has not contacted home since last interview (reference)
Attitudes toward Money	How strongly agree with statement "If you've got money, you might as well spend it." ²⁹

²³ Age at the time the interview was conducted.

²⁴ Other includes American Indian/Aleut/Eskimo, Asian/Pacific Islander, and anyone who responded "other" and who could not be reassigned as non-Hispanic white, black, or Hispanic.

²⁵ Level of educational attainment at the time the interview was conducted.

²⁶ To improve response rates, interviewees were asked to look at a show card and choose one of 36 ranges within which their annual income fell. The "income" variable for this paper assigns to each participant the midpoint of his or her selected range and then stratifies these values into six categories: less than \$10,000, \$10,000 - \$19,999, \$20,000 - \$29,999, \$30,000-\$39,999, \$40,000-\$49,999, and \$50,000 or more.

²⁷ "Employment" refers to respondents' and (if applicable) spouses' joint employment status. We are interested in assessing how unemployed households differ from households where participants are either employed or retired. Therefore, for married/partnered respondents, joint employment status was coded as employed/retired when either the respondent or spouse was employed or retired. It was coded as unemployed when neither the respondent nor spouse was employed or retired.

²⁸ Marital status was consolidated into two categories. "Married/partnered" refers to those interviewees who have a spouse or partner and who are living with that person. "Neither married nor partnered" refers to those who are widowed, divorced, separated, have never been married, or responded "other" when asked.

²⁹ Agreement with this statement was measured on a five-point Likert scale as follows: 1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4=agree, and 5=strongly agree.

Table 19: Wealth and Assets: Logistic Regression Analysis

	Assets										Debts					
	Trans + CDs		Investments		Insurance		Prop. hold		Misc. assets		Inst. debts		Credit card		Misc. debts	
	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR
Intercept	0.51		-2.98		-2.79		-4.01		-2.48		-0.89		0.47		-1.52	
30-39	0.50	1.64	-0.04	0.96	0.13	1.14	0.67	1.95	0.08	1.09	-0.36	0.70	0.03	1.03	-0.22	0.80
40-49	0.17	1.19	-0.02	0.98	0.31	1.36	0.48	1.62	0.13	1.14	-0.76	0.47	0.68	1.98	-0.10	0.91
50-59	0.21	1.24	-0.28	0.76	0.77	2.16	0.92	2.51	0.27	1.32	-1.12	0.33	0.09	1.09	0.12	1.12
Male	-0.30	0.74	0.20	1.22	0.13	1.14	-0.34	0.71	0.20	1.23	0.04	1.04	-0.25	0.78	-0.28	0.76
Black	-0.03	0.97	-0.21	0.81	0.99	2.69	0.34	1.40	0.07	1.07	0.21	1.24	0.25	1.28	-0.54	0.59
Hispanic	-0.39	0.68	-0.83	0.44	-0.78	0.46	0.87	2.38	0.66	1.93	-0.20	0.82	0.17	1.19	-0.43	0.65
Other	0.25	1.29	-0.56	0.57	-0.02	0.98	-0.21	0.81	-0.20	0.82	0.36	1.44	0.30	1.35	0.01	1.01
Less than high schl	-0.45	0.64	-1.12	0.33	0.00	1.00	-0.19	0.83	-0.86	0.42	-0.68	0.51	-0.31	0.73	-0.02	0.98
BA & some	2.04	7.66	0.28	1.33	0.11	1.12	0.17	1.19	-0.15	0.86	0.97	2.64	-0.31	0.74	-0.09	0.91
graduate school																
Graduate or	2.05	7.75	0.58	1.78	0.09	1.09	-0.26	0.77	0.12	1.13	0.87	2.38	-0.93	0.39	-0.56	0.57
professional school																
Less than \$10,000	-0.37	0.69	-0.50	0.61	-0.40	0.67	0.03	1.04	0.22	1.24	0.13	1.14	-0.22	0.80	0.10	1.11
\$20,000-\$29,999	0.02	1.02	0.43	1.53	-0.03	0.97	0.56	1.75	0.49	1.63	0.26	1.30	-0.08	0.92	-0.16	0.85
\$30,000-\$39,999	0.32	1.38	0.59	1.80	-0.10	0.91	0.50	1.64	0.53	1.70	0.18	1.19	0.36	1.44	-0.10	0.91
\$40,000-\$49,999	1.63	5.11	0.96	2.61	-0.08	0.92	0.68	1.97	0.77	2.15	0.36	1.44	-0.11	0.90	0.17	1.19
\$50,000 or more	1.47	4.36	1.18	3.26	-0.17	0.85	1.28	3.60	1.17	3.24	0.52	1.68	-0.28	0.76	0.26	1.30
Employed/retired	0.75	2.11	1.02	2.77	0.56	1.75	-0.02	0.98	0.24	1.27	0.10	1.11	0.71	2.04	0.15	1.16
Married/partnered	0.30	1.35	0.04	1.04	0.31	1.36	0.67	1.95	-0.18	0.84	0.02	1.02	-0.10	0.91	0.22	1.25
Number of children	-0.18	0.83	-0.04	0.96	-0.05	0.95	-0.17	0.84	-0.02	0.98	0.10	1.11	-0.02	0.99	-0.03	0.98
Owners	1.71	5.53	0.25	1.28	0.68	1.98	0.53	1.69	-0.44	0.65	-0.21	0.81	0.61	1.84	2.39	10.87

Continued on next page

Table 19 continued (Wealth and Assets: Logistic Regression Analysis)

	Assets										Debts					
	Trans + CDs		Investments		Insurance		Prop. hold		Misc. assets		Inst. debts		Credit card		Misc. debts	
	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR
Upbringing: Parents had transaction accounts	0.61	1.85	0.75	2.11	0.20	1.22	0.21	1.23	0.33	1.39	0.39	1.48	0.40	1.50	0.28	1.32
Upbringing: D/K if parents had transaction accounts	0.41	1.51	-0.32	0.73	-0.43	0.65	-0.46	0.63	-0.03	0.97	0.08	1.09	0.53	1.70	0.16	1.18
Fin. State: Bill collector contact since last interview	0.25	1.28	-0.54	0.58	-0.19	0.83	-0.27	0.76	0.06	1.06	0.21	1.23	0.24	1.28	1.10	3.01
Attitudes: "Got money, might as well spend it."	-0.09	0.92	-0.23	0.80	-0.16	0.85	-0.03	0.97	-0.13	0.88	-0.12	0.88	0.03	1.03	0.00	1.00
Chi-Square	299.62		308.79		103.56		91.97		50.69		209.25		51.33		506.32	
Df	23		23		23		23		23		23		23		23	
N	1,680		1,680		1,680		1,680		1,680		1,680		1,054		1,680	